

Volume Two: Evaluation of DFID Online Portals and Repositories

Appendices

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Evaluation of DFID Online Portals and Repositories:



Volume Two: Appendices
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Appendix A. The Market Research

A.1 Detailed Description of method used

Rationale

The objectives of the market research were:

- To examine how users of research portals and repositories might be segmented;
- To examine the attitudes of Intended Users of research portals and repositories towards using the internet as a channel for finding research evidence;
- To establish the relationship Intended Users of research portals and repositories have with the portals and repositories under investigation and what they value about their services.

In addition to these main objectives, the market research also explores some of the assumptions and hypotheses in the Theory of Change. The questionnaire (see Annex A.2.2) covered the following topic areas: demographics, occupation, ICT context, participants' use of evidence, and specifically how they find, access and use research evidence online.

Developing the Method

The online questionnaire was initially drafted based on reviewing questions used in research on related topics, drawing on the evaluation questions and Ellis framework for structure. It was developed through an extensive process of consultation within the evaluation team (including our Advisory Group and DFID Management teams), with our in-house survey experts and through piloting.

The questionnaire went through several iterations, based on piloting at Inception phase and Stage 2. Feedback from these pilots resulted in improvements being made to the structure of the questionnaire, as well as our definition of evidence and research evidence, whilst still keeping it as short as possible to minimise the risk of respondents dropping out before the end. In addition, early findings from the first country case study, Ghana, prompted the revision of some questions.

The questionnaire was distributed using the industry standard software, Snap Professional¹.

Recruitment and sampling

Our population of interest was development actors worldwide, but with particular emphasis on trying to reach policy-makers in the South, since these groups are less well researched in the literature. Within this broad group we identified² the following selection criteria for respondents:

- Has sufficient internet access to enable browsing of websites;
- Is interested in or already seeking research evidence to inform their work;
- Fluent in English;
- Working in one of seven target categories of policy actor³. See Table 1 below:

¹ In addition to the creation of professional looking, user-friendly and intuitive questionnaires, the use of our in-house expertise and approved survey software provides a high-level of data security. Online questionnaire hosting via Snap Webhost is ISO 27001 compliant. See http://www.snapsurveys.com/survey-software/security-accessibility-and-professional-outline/.

² Based on the original long list provided by DFID in the terms of reference, the literature review, consultation with the Advisory Group and our pilot online questionnaire.

³ While the seven categories were the focus of our recruitment, the sampling method used resulted in a broader range of



Table 1:	Target Intender	llser arouns	for the Ma	arket Research
	Target intended	a user groups		arket Research

South & North	South only
Development worker in civil society (e.g. employed by a national or international non-governmental organisation, or community based organisation)	Elected member of local or national government (e.g. Member of Parliament, member of regional/sub-national legislature or council, Councillor/local council member, government minister)
Academic/Researcher (e.g. researcher or postgraduate student based in a research institute, university, or think tank) with an interest relevant to poverty alleviation or social change in the South	Civil or public servant
Development Consultant	Knowledge broker/intermediary for policy makers ⁴ (e.g. Parliamentary committee clerk, Parliamentary researcher, Parliamentary librarian, assistant/secretary to Member of Parliament, Government departmental librarian)
	Media professional (e.g. journalist, editor, commentator for online, print or broadcast media)

This table has been revised slightly since it originally featured in our Inception report to avoid any potential overlap between two of our categories. These were originally:

- National Legislature or elected member of local government (e.g. Member of Parliament, member of regional/sub-national legislature or council, Councillor/local council member)
- Executive branch of national or local government (e.g. civil servant, ministerial advisor, local council worker, government minister)

Having concluded during the Inception Phase that random sampling methods would not be practical in this context, we used purposive sampling to recruit respondents within each of the categories of target group. From our investigations in the Inception Phase we assumed an average 10% response rate for this research. Therefore, in order to get the target 50-100 respondents per segment⁵ our target sample frame size needed to be 500-1,000 per target group. Our targets aimed to produce a combined sample of up to 700 respondents in the South and 300 in the North. We anticipated this would also allow us to disaggregate by gender and some countries/sub-regions. Section A.2 presents the total number of respondents and how they are distributed across the categories of Intended User, gender, region, etc.

Sample frames

The first sample frame (Wave 1), which had 5,824 contacts, was developed through initially tapping into Mott MacDonald and Open University contact databases e.g. project contacts, consultancy services team database and Open University alumni, and added to through desk-based searching of publicly available email addresses e.g. government directories.

As recommended by DFID, the questionnaire was emailed⁶ initially to the first 500 members (batch 1) of the Wave 1 sample frame only (on 3rd November, 2015) to allow a rapid review of responses received to ensure the questionnaire was working as intended. The questionnaire was modified slightly in the light of the responses received and was then sent to the remaining 5,324 email addresses (batch 2) in Wave 1 on 16th November. For this, and each subsequent wave of issuing, the questionnaire

intended and actual users of development research portals having the opportunity to participate in the market research. These responses were included in the final dataset (and even led to an 8th target category being added: Multilateral and donor agency staff based in the South), but those from the target categories were analysed separately.

⁴ As distinct from knowledge brokers/intermediaries that are unaffiliated to government.

⁵ Based on sub-group size recommendations by the National Audit Office (National Audit Office, Statistical and Technical Team).

⁶ Each invitation message contained a unique online questionnaire URL tied to the email address to which it was sent. This means the issuing of reminders was only to those who had not responded. Reminders were scheduled to issue at different times of day, and different days of the week to accommodate the variety in the respondents' working weeks and time zones.



stayed open for at least three weeks and recipients received at least two reminders. Where data were available, the invitation emails were personalised. In cases where open links were used (e.g. when sending to a closed network or set of personal contacts) reminders were not often possible. Section A.2 summarises the mailouts of the questionnaire, the delivery rates and the response rates for each wave.



A.2 Market research metadata

The table below summarises the different waves of respondent recruitment

	Total Sent	Total Received	Total undeliverable	Total completed	Response rate
Wave 1 batch 1 ⁷	500	425	75	50	12%
Wave 1 batch 2	5,324	4,713	611	659	14%
Wave 2	N/A (6 open links)	Unknown	Unknown	149	Unknown for open links
Wave 3	3,651	2,960	691	79	3%
Wave 4	781+ 3 open links	609	172 (open links unknown)	21+37 from open links	3% for direct mail, unknown for open links
TOTAL	9756 + those sent open links	8282 + those received through open links	1474 (open links unknown)	945	9.2% (unknown for open links)

Table 2: Waves of Market Research respondent recruitment

Wave 1, Batch 2 was built up using OU's alumni database, Mott MacDonald's country offices' contacts and some desk-based research. This sample was a mix of largely academic, government and consultant contacts⁸.

Wave 2 was a set of Open Links to closed networks e.g. Evidence Based Policy Development Network.

Wave 3 was a sample included a large proportion of Southern government contacts obtained from Southern government websites.

Wave 4 was a top-up sample of predominately Southern government contacts and knowledge brokers and a set of open links issued to networks of development actors e.g. association of parliamentary librarians.

Almost all questions in the questionnaire were mandatory (with options allowing respondents to effectively skip if preferred e.g. "Don't know" or "not relevant"). The survey team was only sent data from fully completed and submitted questionnaires and although calculated during pre-testing to take on average 20 minutes to complete, some respondents' experience was that this could take a lot longer depending on how much information they provided and fast the questionnaire loaded on their browser. These factors will inevitably have affected the response rate.

A questionnaire was marked as undeliverable if the sample member's email address was no longer working and the response rate is therefore 'Total completed divided by Total received'. As the sampling method was purposive rather than random, the response rate tells us more about our efficiency in sourcing respondents than the representativeness of the results i.e. we cannot calculate statistical validity of the data regardless of response rate. However, we believe the response rates of individual waves do tell us something else of value:

⁷ This pilot batch was partly reported on in the Stage 2 Interim Report and the full 50 responses were used to inform the development of the coding approach; in fact some early challenges to the original Theory of Change emerged as part of this process where the evaluation team used the ToC for coding and struggled (e.g. replacing Accessible with Discoverable). Their *The findings about Southern Internet* used, albeit not as part of the larger dataset in the main report, but did influence our evaluation approach.

⁸ Wave 1, Batch 1 and Wave 1, Batch 2 are sub-samples of a single sample (Wave 1); Batch 1 being the 1st 500 members of Wave 1 and used to test the final questionnaire before it was amended and issued to the remaining 5324 members.



a) Southern government contacts are particularly hard to reach through online research. About 1 in 8 of every email sent to Wave 1, Batch 2 resulted in a completed questionnaire being submitted compared to about 1 in 45 of every email sent to Wave 3 (largely sourced via Southern government websites). A contributing factor to this difference was the number of email addresses that were found to be not working among Wave 3 (18.9%).

This is reflected in the distribution of respondents we recruited to the Civil Servant category. The 55 respondents who completed the online questionnaire and met the full sampling criteria for Southern civil servants were from 14 countries; however 10 respondents were from South Africa and 21 from the Philippines - two countries that have made notable advances in e-government.

Figure 1 Southern Civil Servant Respondents by location



b) Online surveys are at risk of being blocked as spam: despite using respected online survey software we know that email providers' spam filters prevented emails from the Survey Team reaching some recipients (where respondents told us they found the email in their Spam folder).

c) A trusted, recognised sender is effective: We have anecdotal evidence that non-recognition of the sender affected response rates for the direct emails from the Survey Team while an open link emailed directly to individual selected members of KM4Dev by a KM4Dev member, with one reminder had a 21% response rate.

How data were analysed

Respondents were first coded into categories of North or South, based on the information provided about their location combined with World Bank data⁹. Using this North/South variable and other classification data they had provided, respondents were then placed into the 10 original categories, plus Southern (Other) and Northern (Other). We identified that the Southern (Other) category had enough respondents within it (63) who could be classified as Multilateral/Donor Agency staff based in the South to create an 11th category of Intended User (see Table 3) capable of being analysed separately.

⁹ Countries categorised as High Income, by the World Bank based on its July 2015 categories (World Bank, 2016), were coded as Northern; all others as Southern.



The new North/South and Respondent Category variables and existing classification variables were used for basic frequency and disaggregation reporting for all questions (see Section 5, in main report). However, four groups of Intended User had fewer than 50 respondents thus making them unsuitable for reporting on as separate groups. Their data is included in the wider analysis where appropriate. There remained 652 respondents across the seven larger (Primary) groups of different sizes (from 55 to 163 respondents). This presented a challenge in reporting at a headline level about Intended Users; our early analysis showed some emerging differences in information behaviour between the groups but being of different sizes, there was a risk that a larger group's behaviour could skew our headline findings. Weighting was ruled out because the true sizes of these groups in the wider population are not known; for the same reason, we were not able to weight by gender as information on the gender distribution among Southern academics, for example, is not available.

To resolve this challenge, we present the data in several ways in the next section. For each question we report the overall responses (all who answered the question), but for most questions we also present (and use as headline findings in the main Evaluation Report) the mean average of the percentages across the seven groups that have at least 50 members and refer in these cases to the sample as Primary Intended Users. Thus, when the findings relating to Primary Intended Users are reported, the responses of larger groups (such as Development Consultants in the North and South) do not outweigh those of smaller groups (such as Southern Civil Servants). For comparison purposes we also present the findings from individual groups e.g. civil servants, where appropriate, to illustrate differences between their behaviour.

A.2.1 Market research findings

Introduction to findings

The first set of questions (Q1 to Q14) was asked of all 945 participants of the online market research and tell us the general composition of the sample. Question 14 helped us to identify which of the respondents met the full sampling criteria by asking them if they ever have to find research evidence for work, for themselves or for other people. Those who answered No (95 respondents, 10% of the sample), were taken directly to Question 33 which asks about awareness and use of various portals and repositories likely to be of interest to development actors – skipping questions relating to information behaviour and research evidence.

The analysis of Questions 15 to 22 is based on a sample of 850 respondents (those who replied Yes or Don't Know¹⁰ to Question 14). Of these, 671 fall into the categories of Intended User that we sought to reach through purposive sampling (although not evenly as Table 3 illustrates). Two respondents gave an answer to Question 22 that excluded them from some subsequent questions meaning that Questions 23 to 32 were asked of 848 respondents.

The online market research aimed to obtain responses from 50 to 100 of three categories of development actor in both the North and South, and of four categories in the South only. As the table below shows, and was observed at Interim Reporting stage, some categories proved harder to recruit than others and as was noted in 1, a new category was able to be added.

¹⁰ We included the option Don't Know to enable respondents to skip the question if desired or to allow for respondents not understanding the term Research Evidence and the definition provided. However, the answers provided to other questions suggested that those who selected Don't Know did use Research Evidence and tended not to skip other questions.

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Table 3: Categories of Development Actor

	Respondents	Who met sampling criteria	% of whom female
Academic/Researcher (North)	66	66	48.5% (32)
Academic/Researcher (South)	81	77	45.5% (35)
Development Consultant (North)	186	163	42.3% (69)
Development Consultant (South)	157	145	33.1% (48)
Development worker in civil society (North)	45	42	57.2% (24)
Development worker in civil society (South)	91	83	31.3% (26)
Elected member of local or national government (South)	15	13	23.1% (3)
Civil servant (South)	65	55	40% (22)
Knowledge broker/intermediary for policy makers (South)	14	14	35.7% (5)
Media (South)	14	13	53.8% (7)
Multilateral/Donor Agency Staff (South)	68	63	41.2% (26)
Other (North)	94	80	55% (44)
Other (South)	49	36	55.6% (20)
TOTAL	945	850	42.5% (361)

The Northern development worker in civil society category fell 5 short of the target, with 45 responses (of which only 40 were asked the wider set of questions about research evidence use) and the following categories only achieved 14 or 15 respondents:

- Elected member of Southern local or national government
- Southern knowledge broker/intermediary for Southern policy makers (e.g. Parliamentary researcher, Government departmental librarian)
- Southern media professional (e.g. journalist or editor of national newspaper)

This makes these four groups unsuitable for reporting on as separate groups in this report, although their data is included in the wider analysis. Their responses have also been treated as further sources of qualitative data about their respective category of Intended User.

In this report, the expression "Intended Users" is used as shorthand for the sub-sample of 734 respondents who meet the full sampling criteria and fall within one of the 11 final groups of Intended User of research portals and repositories (3 categories across North and South – making 6 groups - and 5 unique to the South). The expression "Primary Intended Users" is used to refer to the seven groups for whom we have more than 50 responses and is typically reported as a mean average across their responses to avoid larger groups biasing the results.

Although the sampling method used does not allow for statistical significance to be reported, we have taken as our guide the appropriate margins of error for the sample sizes involved before highlighting differences between groups. We assume there would need to be at least 9 percentage points between the genders, for example, or 21 percentage points between findings from Multilateral/Donor Agency staff in the South, and Southern civil servants in order to point to them as being different.



Summary of Market Research Results by Question

Question 1: Which region are you primarily based in? (Please select one option from the list below) n=945

Figure 2 Respondents by Region



Table 4: Respondents by Region

Region	Count	%
East Asia and Pacific	140	14.8
Europe and Central Asia	289	30.6
Latin America and Caribbean	19	2.0
Middle East and North Africa	20	2.1
North America	61	6.5
South Asia	95	10.1
Sub-Saharan Africa	321	34.0
Total	945	100.0

Which country are you primarily based in?

These responses enable us to classify the respondents as being based in the North or South using the latest World Bank list of High Income countries as the Northern list (World Bank, 2016). This classification results in the following subsamples:

- Respondents based in the North: 391
- Respondents based in the South: 554

The following countries had more than 25 respondents in them:

- UK: 171
- South Africa: 50
- Nigeria: 48
- Kenya: 39
- United States: 40
- Philippines: 38
- Rwanda: 35

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Figure 3 Location of respondents



Thinking of the last 10 years, for how many of these in total have you been based in [country selected in previous question]? N=945

The data were collected to enable us to check if required against possible bias when looking at the country/region location of respondents.



Figure 4 Respondents' years spent in country based in over the last 10 years

Table 5: Respondents' years spent in country based in over the last 10 years

	Number of respondents	Percentage of total
Less than 5 years	182	19%
5 to 10 years	719	76%
Prefer not to say	44	5%
Total	945	100%



This distribution stays about the same for the different samples, for example, among the 848 respondents who answered questions 23 to 32, 77% Southern respondents had been based in their main country for 5 to 10 of the last 10 years.

Question 2: Which type of organisation do you currently work for (if you are employed by more than one, please select the main one)? N=945

This question, together with the next question on role, was asked to enable us to identify respondents by target group category (through combinations of organisation type, role and country).





Table 6:Respondents by organisation type

Organisation Type	Number of respondents	Percentage of total
Consultancy (private sector or self-employed)	337	35.7%
University department / Research institute / Think tank	184	19.5%
National Government (excluding overseas aid departments)	88	9.3%
International civil society organisation (charity, faith-based organisation, etc.)	81	8.6%
Other (please specify)	66	7.0%
Multilateral organisation (e.g. UN)	44	4.7%
Government donor agency (e.g. USAID, DFID)	41	4.3%
National civil society organisation (charity, faith-based organisation, etc.)	37	3.9%
Local government	16	1.7%
Media (e.g. national newspaper)	15	1.6%

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Organisation Type	Number of respondents	Percentage of total
Private charitable foundation (e.g. Bill and Melinda Gates Foundation)	15	1.6%
Parliament / Political party	13	1.4%
Network (e.g. professional association)	8	.8%
Total	945	100%

Question 3: Which of the following best describes your MAIN role in that organisation? N=945

Figure 6 Respondents by main role



Table 7: Respondents by main role

Main role	Number of respondents	Percentage of total
Advisor / Consultant	369	39%
Programme / Project manager	178	19%
Researcher / Academic	128	14%
Other (please specify)	80	9%
Lecturer	38	4%
Programme / Project support	34	4%
Communications / Marketing	25	3%
Elected representative	20	2%
Librarian / Information Professional	17	2%
Research support	14	2%
Journalist / Editor	13	1%
Community / Development worker	9	1%
Fundraiser	7	<1%
Student	6	<1%
Trainer	4	<1%
Volunteer	3	<1%
Total	945	100%



Question 4: In which sector do you mainly work? n=945

Figure 7 Respondents by sector



Table 8: Respondents by sector

Main sector	Number of respondents	Percentage of total
Health	301	32%
Education	179	19%
None of the above	132	14%
No specific sector/generalist	123	13%
Agriculture, Food Security and Nutrition	50	5%
Economic Growth and Labour	40	4%
Conflict and Security	25	3%
Gender and Equality	24	3%
Environment	19	2%
Infrastructure	15	2%
Water and Sanitation	14	2%
Climate Change	14	2%
Energy	9	1%
Total	945	100%



Question 5: Which of the following age categories do you fit into? n=945

This question was used to aid analysis of information behaviour (based on an assumption about relationship between age and behaviour). Just over half (55%) of respondents classed themselves as aged 45 to 64 years old.





Table 9: Respondents by age category

Age categories	Number of respondents	Percentage of total
18 to 24 years	7	1%
25 to 34 years	92	10%
35 to 44 years	165	18%
45 to 54 years	248	26%
55 to 64 years	268	28%
65 years or older	155	16%
Prefer not to say	10	1%
Total	945	100%



Question 6: What is your highest level of education?

Figure 9 Respondents by highest qualification



Table 10: Respondents by highest qualification

Highest qualification	Number of respondents	Percentage of total
Masters or Doctoral degree	784	83%
Bachelor's degree or similar	117	12%
Professional qualification	31	3%
High school or baccalaureate or A-levels	6	<1%
Other/None of the above	3	<1%
Prefer not to say	4	<1%
Total	945	100%

Question 7: Are you ...? n=945

Female: 399 (42.2%)

Male: 533 (56.4%)

Prefer not to say: 13 (1.4%)

Total: 945

The table overleaf highlights the distribution of genders in each category of Intended User. Women comprised around 40+% of most groups of respondents, but not amongst Southern Development Workers or Southern Development workers¹¹. However, it is important to note that because of the sample size, although it looks like there are differences in gender ratios between the Northern Academics and Southern Development Workers in Civil Society they are (probably) not big enough for us to assume that this is the case outside of the people who took part in the Market Research.

¹¹ Only considering those groups that had a minimum of 50 respondents.

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Table 11: Respondents by development actor categorisation

			Prefer not to		
	Female	Male	say	Respondents	% female
Elected member of local or national government (South)	3	12	0	15	20%
Development worker in civil society (South)	28	62	1	91	31%
Development Consultant (South)	52	104	1	157	33%
Knowledge broker/intermediary for policy makers (South)	5	8	1	14	36%
Multilateral/Donor Agency Staff (South)	27	40	1	68	40%
Development Consultant (North)	77	107	2	186	41%
Academic/Researcher (South)	35	45	1	81	43%
Civil servant (South)	28	36	1	65	43%
Academic/Researcher (North)	32	32	2	66	48%
Media (South)	7	6	1	14	50%
Development worker in civil society (North)	27	17	1	45	60%

Question 8: Which of the following best describes how often you access the Internet for any purpose (i.e. for work/leisure etc.)? This should include access from any device (Desktop, Laptop, Tablet or Mobile) and from any location (home, work, internet café or any other location).

(Please tick one box only), n=945

98% of respondents said they access the internet at least a few times a day (Many times or A few times).

Figure 10 Respondents' frequency of accessing the internet





Table 12: Respondents' frequency of accessing the internet

Frequency of accessing the internet	Number of respondents	Percentage of total
I use the internet many times a day	838	88.7%
I use the internet a few times a day	88	9.3%
I use the internet about once a day	8	.8%
I use the internet more than once a week but not every day	8	.8%
Don't know	3	.3%
Total	945	100%

Question 9: If you would like to explain your answer, please use the space below (149 responses)

Some of the answers given indicate that "how often you access the internet" was interpreted by some respondents as meaning having internet connection (the opportunity to access the internet) e.g. *"Always connected to internet during working hours and evenings"*. A selection of answers given by those who selected "Many times a day" illustrates some of the different contexts that may lie behind internet access frequency.

Mainly via laptop but check emails on mobile phone when out of the office. [Development Consultant, Northern]

The cost of the internet connection in PNG [Papua New Guinea] is more than the total salary of most professionals in the country [Academic/Researcher, Southern]

...we have very poor accessibility to academic materials and as such I rely on on-line materials to conduct my work [Academic/Researcher, Southern]

Have my tablet with me all the time so i scroll regularly the [whole] day. I use my laptop and computer when i start working on my projects [and] use internet as [needed]. My cell phone is also always [connected] to my [emails and] with internet connections always [Civil servant, Southern]

I am always on internet through my smart phone that is always on and i use my laptop for at least an hour daily [Civil servant, Southern]

When the network is available, I use the Internet [Elected member of local or national government, Southern]

Question 10: Which of the following devices do you ever use to access the Internet for any purpose (i.e. for work/leisure etc.)? (Please tick all that apply), n=945

Almost all respondents (97%) said they (ever) use a laptop or desktop computer to access the Internet. 71% of respondents used a laptop or desktop computer, and a mobile; and 40% or respondents used both of these devices plus a computer tablet e.g. iPad. Just 67 respondents (7%) used Smart TV to access the Internet.

Mobile or cell phone use

Focusing just on the 734 respondents in the "Intended Users" sub-sample (i.e. those who meet the sampling criteria with the addition of Multilateral/Donor Agency staff in the South), 74% (542 respondents) said they use a mobile or cell phone to access the Internet.



The table below shows there is not a large variation between types of Intended Users¹² with those using a mobile or cell phone to access the Internet ranging between 65% and 79%.

Table 13: % of Target Users that use a mobile phone to access the internet

Target User Group	% that use a mobile phone to access the internet
Academic/Researcher (North)	77%
Academic/Researcher (South)	65%
Development Consultant (North)	76%
Development Consultant (South)	72%
Development worker in civil society (South)	71%
Civil servant (South)	75%
Multilateral/Donor Agency Staff (South)	79%

Question 11: How do you use the internet, if at all, to keep up to date with your sector/profession? (Please tick all that apply), n=945

Figure 11 Respondents' use of online tools to keep up to date



¹² Focusing just on the categories that have at least 50 respondents

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Table 14: Respondents' use of online tools to keep up to date

Online tool used to keep up to date	Number of respondents	Percentage of Total
Periodically revisit favourite websites	788	83%
Email colleagues / contacts to exchange information / articles	787	83%
Subscribe to email newsletters/alerts	695	74%
Browse online journals	615	65%
Join groups on online social networks e.g. Facebook or LinkedIn	504	53%
Join email discussion lists	338	36%
Periodically monitor Twitter	262	28%
Sign up to follow blogs	222	24%
Use Google Alerts to monitor news stories	192	20%
Subscribe to RSS feeds	139	15%
Other (please specify)	49	5%
Don't know	4	.4%

Analysis of the Northern and Southern respondents separately shows there are minor differences between the two groups in the popularity of some of the tools but not large enough to suggest these differences exist in the wider populations from which the samples were drawn.

Looking at gender, there are even fewer differences, with one exception: **80% of the female** respondents said they subscribe to email newsletters/alerts to keep up to date with their sector or profession, compared to 69% of male respondents. The table below illustrates how these differences continue in the North and South.

Table 15.	Respondents subscription to email newsietters/alerts			
Gender	North/South	Total in sample	Who subscribe to email newsletters/alerts	Percentage of subsample who subscribe
Female	North	188	159	85%
Female	South	211	161	76%
Male	North	198	144	73%
Male	South	335	223	67%

Table 15: Respondents' subscription to email newsletters/alerts

Question 12: Do you ever have to find EVIDENCE of any kind for yourself or other people as part of your work? (Please tick one box only), n=945



Figure 12 Respondents who ever have to find evidence for work, for themselves or for other people



Table 16: Respondents who ever have to find evidence for work, for themselves or for other people

	Number of Respondents	Percentage of Total Sample
Yes	882	93%
No	45	5%
Don't know	18	2%
Total	945	100%

A definition was provided of Evidence and Research Evidence. The percentage of respondents giving Yes as their answer to this question is close to 93% in the gender and North/South sub-samples. 18 said Don't Know (2 North and 16 South).

Question 13: Please think of a time you recently looked for EVIDENCE of any kind for work. What was the subject matter and what type of information or data were you looking for? (Please write in below)

This question was asked to help put analysis of other questions into context (see analysis of Question 14 for example). 830 respondents (out of 882 who said they ever look for evidence) answered this question.

Question 14: Do you ever have to find RESEARCH EVIDENCE for yourself or other people as part of your work?

(Please tick one box only), n=945

This question was included to help identify respondents who matched the full sampling criteria (and could be classed as Intended Users), specifically people who are interested in seeking, or who are already seeking, research evidence to inform their work.







Table 17:	Respondents who	ever have to fi	nd research	evidence for	themselves or others
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	Number of Respondents	Percentage of Total Sample
Yes	826	87%
No	95	10%
Don't know	24	3%
Total	945	100%

Those who answered No (95 respondents, 10% of the overall sample), were not asked questions about information behaviour in relation to obtaining research evidence and were taken directly to Question 33 which asks about awareness and use of various portals and repositories likely to be of interest to development actors. 40 of the 95 were based in the North (10% of the Northern respondents), 55 in the South (10% of the Southern respondents).

Questions 15 to 22 (below) therefore were answered by a sample of 850 respondents (those who replied Yes or Don't Know¹³ to Question 14). Of the Don't Knows, 6 were based in the North (1.5% of Northern respondents) and 18 in the South (3.2% of Southern respondents). From this point in the report, we refer to this sample of 850 respondents as "Research Evidence Seekers" (within this sample of 850 we find the subset of "Intended Users" however the 850 includes respondents that also fall into the Other Northern and Other Southern categories).

Table 18: Respondents who answered that they never have to find research evidence for themselves or others

Category of Respondent				
	Number of responses			
Northern development consultant	23			
Northern academic/researcher	0			
Northern development worker in civil society	3			
Southern development consultant	12			

¹³ We included the option Don't Know to enable respondents to skip the question if desired or to allow for respondents not understanding the term Research Evidence and the definition provided. However, the answers provided to other questions suggested that those who selected Don't Know did use Research Evidence and tended not to skip other questions. For example, none of the 24 'Don't Knows' selected the option 'Don't Know' in the next multiple choice question (How often, if ever, they use colleagues as a source to find research evidence).

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Category of Respondent

	Number of responses
Southern academic/researcher	4
Southern development worker in civil society	8
Southern media professional	1
Southern knowledge broker/intermediary for policy makers	0
Southern national legislature or elected member of local government	2
Southern civil servant	10
Multilateral or donor agency staff based in the South	5
Other (Northern)	14
Other (Southern)	13
Total	95

As the table above shows, many of the 95 respondents who said No fell into some of the priority categories of Intended User for research portals and repositories. Furthermore, the 95 who said No included 12 Eldis users, 14 R4D users and 8 SciDev.Net users, so the answers they had provided to Question 13 were examined. One interpretation is that there seems to be a group of people who fit the intended target audience of the portals and repositories but have a need for practical information rather than research evidence, for example respondents were looking for:

What is best practice in medical terms, comparing UK and German practice.

Educational Policy, frameworks, quality assurance guidelines - all related to higher education. Sometimes statistics related to HE institutions or students. Also security briefings for international travel risk assessments

Monitoring influence – methodology

country background information on proposal writing.

The amount of GDP allocated to Health sector in countries across Asia and the pacific

Market-based sanitation Nature and number of sanitation businesses

However, a second interpretation may be that these were 'false negatives' i.e. that these respondents do search for research evidence, but still answered 'no' potentially as the question and/or the definition of research evidence were not written clearly enough.

Question 15: If you would like to explain your answer, please use the space below:

All respondents were given the opportunity to explain the answer they gave to Question 14 (whether Yes, No or Don't know). Of the 95 respondents who said 'No', 10 provided a response as listed below:

Development consultant (North) working in governance and institutional development: *my clients are* [rarely] interested in research. also: research takes too [long] to produce findings that are relevant NOW.

Development Consultant (South), working in Governance: Research evidence is of value in project design (and proposals) but as this is already determined by the time I am running a project, there is much less need for the level of detail that would [qualify] as "research evidence" in my day-to-day work. I would normally expect HQ support in accessing relevant material for reports, etc., when necessary.



Civil servant (South), working in Health: As head of office i usually let my staff do it for me. My office also is not much on research except for [operational] researches.

Development worker in civil society (South), working in Economic Growth and Labour: Up to now is not familiar to me.

Multilateral/Donor agency staff, Generalist, (South): Not yet. As my work focuses on the bridge between research and policy, where evidence-based policy can mean evidence in the broadest sense, *i.e.* local wisdom, diagnostic studies, expert opinion and research evidence.

Other (retired), worked in Health, (North): research evidence was not part of my role, but would have been performed one layer above, at MOD level.

Other, working in Education, (North): Rarely.

Development consultant, working in Health, (North): I don't have to, but it might be relevant.

Other, working in Environment, (South): I just use internet, read newspapers to collect the information on this subject.

Development worker in civil society, working in anti-slavery/anti-trafficking, (North): *It isn't necessary* though I do use it when relevant material is available; perhaps from reports or studies, I use UN and ILO findings, indices and statistics regularly.

From reading these comments, and those that the wider group of 95 gave to Question 13 (which asked about a recent search people had made online for evidence), it would seem that some respondents (including two Northern development consultants) said No because they did not understand the term 'Research Evidence', the definition provided, or the distinction between Evidence and Research Evidence. Others gave reasons that suggest they encounter research evidence but do not actively seek it out or that other people supply them with it.



Question 16: How often, if ever, do you use the following sources to find RESEARCH EVIDENCE for yourself or other people as part of your work? (Please tick one box per row), n=850

Table 19: Frequency of use of sources to find research evidence

					Don't	
Source of research evidence	Frequently	Occasionally	Rarely	Never	know	Total
Ask friends/family to recommend sources	66	224	344	212	4	850
Radio programmes and/or their online sites/apps	68	162	319	295	6	850
Television programmes and/or their online sites/apps	71	176	315	284	4	850
Blogs	75	209	312	239	15	850
Twitter	77	139	191	431	12	850
Help desks / enquiry services (online, telephone or face to face)	96	168	310	270	6	850
Social networking sites e.g. Facebook or LinkedIn	141	234	241	229	5	850
Email discussion lists	181	271	232	160	6	850
National or local newspapers and/or their online sites/apps	195	263	256	135	1	850
Ask colleagues to recommend sources	265	452	124	9	0	850
Email newsletters/alerts	272	321	183	71	3	850
Websites that summarise, profile, link to or report on other people's research, evaluation findings or data	386	324	105	29	6	850
Government websites of the country in which you are primarily based, e.g. national data portals	429	294	98	29	0	850
Specialist journals in print or online	488	254	79	24	5	850
Other organisational websites that make their own research, evaluation findings or data available online e.g. research institutes, bilateral donors, inter-governmental organisations or consultancies	553	242	47	7	1	850
Other (optional question)	37	17	9	107	129	299

From the above table we can see that the category of website that Eldis and SciDev.Net¹⁴ fall into are used frequently by 45% (386/850) of the respondents and the category of website that R4D falls into is used frequently by either 50% (429/850) or 65% (553/850) of respondents depending on whether it is considered a government website or bilateral donor website.

¹⁴ We avoided using the term "research portal" because the way it is interpreted is too broad to be useful in this questionnaire. Instead we used the following description "Websites that summarise, profile, link to or report on other people's research, evaluation findings or data".



Figure 14 Frequency of use of sources of research evidence



Figure 15 shows the distribution between sources of particular relevance to DFID portals, among Primary Intended Users in the South.



Figure 15 Sources used Frequently by Primary Intended Users to find research evidence (Southern only)

In the analysis of question 11, a difference by gender in use of email newsletters or alerts was observed, with a higher percentage of female respondents making use of them to keep up to date with their sector or profession. This difference is **not noticeable** here i.e. among the "research evidence seekers". The gap is just 5 percentage points: 35% of female respondents use email newsletters/alerts frequently as a source of research evidence compared to 30% of male respondents.


However, there are a couple of differences in use by gender:

- 64% of female respondents said they use specialist journals in print and online Frequently, compared to 52% of male respondents.
- 71% of female respondents said they use Other organisational websites that make their own research, evaluation findings or data available online Frequently, compared to 60% of male respondents.

Question 17: If you would like to explain any of your answers, please use the space below:

85 respondents added a comment to explain the selections they made (of which some were along the lines of "nothing to add").

Question 18: You said you use websites that summarise, profile, link to or report on other people's research, evaluation findings or data [FREQUENTLY / OCCASIONALLY / RARELY]. If these websites were no longer available to you, what difference would that make to your work? (Please write in below)

Only respondents who had indicated in Question 16 that they used "websites that summarise, profile, link to or report on other people's research, evaluation findings or data" at all as sources of research evidence were asked this question and were given the option of selecting "Don't know" rather than writing an answer. Based on reviewing the answers provided, we recommend the question is edited if used in the future, to change the wording to "what difference, if any" and to include a tick box option to say "Little or no difference".

The purpose of Question 18 was to understand the value knowledge brokering websites create for their users and examine the relationship between use and reliance i.e. would people who use these websites miss them if they weren't there, how much and why?

The answers provided by the 709 respondents who did supply one (out of a possible 815) were coded by the extent to which the lack of availability would create a detrimental effect on the respondent:

- little or no effect e.g. "Not much. Not my primary source of information".
- some effect e.g. "These are so important to me. I need my evidence quickly and easily to drop into the reports I am writing."
- unclassified effect where the meaning of the whole answer is unclear or it is unclear if the consequence would be significant e.g. a respondent who answered "I look for alternate sources" is describing what they would do in response, not how much effort it would cost them.

Total	386		324	100%	105	100%
Unclassified effect	36	Q%	36	11%	6	6%
Some effect	295	76%	177	55%	31	30%
Little or no effect	22	6%	65	20%	41	39%
Don't know	33	9%	46	14%	27	26%
Response coded as:	Frequently	%	Occasionally	%	Rarely	%
Table 20. The effects of respondents work in knowledge brokening websites were no longer available to them						

Table 20:	The effects on respondents	work if knowledge	brokering websites	were no longer	available to them
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59% of Southern Intended Users (263 respondents) reported there would be some negative effect on their work if websites that summarise, profile, link to or report on other people's research, evaluation findings or data were no longer available to them.

The answers given by these 263 Southern Intended Users were then coded further by the type/s of effect. The coding was developed through a bottom-up approach and with reference to the Theory of



Change. The resulting list (below) can be inverted to identify the benefits that respondents believe that they gain from having these kinds of websites available to them.

Types of effect:

- **Availability**: the respondent expected that there would be less research evidence available to them.
- Longer to find: the respondent expected that it would take them longer to find research evidence.
- Harder to find: the respondent expected that finding research evidence would be harder.
- Direct impact on quality of work/decisions: the respondent was able to give concrete examples of how not being able to make use of these websites would have negative consequences on the influence of their work, the effectiveness of their decisions, etc.
- Lose syntheses/summaries: the respondent expected that they would lose access to valued syntheses or summaries of research (the terms are used interchangeably by respondents).
- Harder to keep abreast/stay current: the respondent expected that their ability to keep up to date with what was new would be affected.
- Harder to judge quality: the respondent expected that their ability judge the quality of the research evidence they found online would be impaired.
- Would be missing sources: the respondent was concerned that they would not encounter some sources of research or information as a consequence.
- *Key starting point*: the respondent would lack one of the main places they use to start their searches for information or research.
- Affect ability to connect with others: the respondent expected that their opportunities to connect with other people such as research authors, or others working in their field, would be reduced.
- Risk of duplicating research: the respondent expected that the risk of them carrying out research already undertaken would be increased.
- Less well-informed: the respondent expected to not know as much about subjects of relevance to them.
- Have to turn to physical sources/photocopying: the respondent expected having to need to visit libraries and other physical sources more (or even at all) and/or make copies.
- Forced to find other sources: the respondent anticipated needing to seek out and identify new sources of information/evidence/publications as a result.
- Harder to verify/triangulate information/evidence: the respondent expected that they would be less able to check information obtained elsewhere.
- Less able to support writing with evidence: the respondent expected that their reports or other outputs would be more likely to lack evidence as a consequence.

of respondents citing the effect (of 263 **Frequency of mentions** Intended Users based in the South who Types of negative effect on work within 263 responses anticipated one or more negative effects) Longer to find 73 28% Availability 57 22% Uncategorised effect (non-specific) 50 19% Direct impact on quality of 22 8% work/decisions Harder to find information/evidence 21 8% Other (only 1 or 2 respondents per 15 6% effect) Lose valued syntheses/summaries 13 5% Harder to keep abreast/stay current 11 4% Would be missing sources 8 3% Affect ability to connect with others 7 3%

Table 21:Effect on Southern Intended Users' work if knowledge brokering websites were no longer available to
them (among 263 who anticipated a negative effect)

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Types of negative effect on work	Frequency of mentions within 263 responses	% of respondents citing the effect (of 263 Intended Users based in the South who anticipated one or more negative effects)
Less well-informed	6	2%
Have to turn to physical sources/photocopying	6	2%
Lose a key starting point for searches	6	2%
Harder to judge quality of material found online	5	2%
Forced to find other sources	5	2%
Less able to support writing with evidence	3	1%
Harder to verify/triangulate information/evidence	3	1%
Risk of duplicating research	3	1%

Q19: How do you judge whether you can trust RESEARCH EVIDENCE that you find online? (Please write in below), n=945

This question was kept deliberately open rather than supplying a list of options for three main reasons:

- to reduce social desirability bias respondents putting down criteria they think they "ought" to use
- to allow respondents to use their own language
- to enable unprompted and unexpected criteria to emerge

780 respondents provided an answer to the question (92% of those asked) and 70 selected the option "Don't Know" [referenced as Question 20 in the questionnaire]. These were coded using a bottom up approach guided by consulting existing guidance on judging research evidence and information, including the DFID How To Note on Assessing the Strength of Research Evidence (DFID, 2014) and Lucey's factors of "good information" (Lucey, 2005). After coding the pilot set of responses obtained through Wave 2, it was noted that the methods used by respondents could be broadly categorised by stages of reading material found online:

Do I trust the source? This is a broad category where judgements are made about whether or not the research evidence can be trusted based on provenance, author, publisher, website where it was found, person who made them aware of it, etc. Respondents often used the term "source" or "trusted source". 490 respondents said they use some aspect of the Source to judge whether or not to trust the research evidence they found online. 158 respondents **only** referred to Source as their method for judging trustworthiness.

Does the material appear trustworthy? This category is a set of filters that respondents apply that do not require reading of the main content such as what kind of peer review process has it been through? When was the research undertaken? What are the citation metrics¹⁵? What references are in the Bibliography? 201 respondents referred to using one or more of these Filtering criteria to judge trustworthiness of research evidence found online and 20 respondents **only** referred to using one or more of them as their method.

Do I trust it having read it? These criteria required the respondent to read the material and included methods such as judging the quality of the research design and analysis, in some cases using a formal checklist to do so, examining how well it was written. 157 respondents mentioned one or more of these criteria in their answer.

¹⁵ Respondents were sometimes imprecise about whether the citation metrics referred to the journal it was published in, or the article itself.



167 respondents (21% of those who gave an answer) went beyond this stage and made specific reference to triangulating, cross-checking or comparing the research evidence with what they already knew or with other sources.

The following set of codes emerged:

Table 22.	Methods by which	respondents judo	e whether the	v can trust research	evidence found	online
	INCLINUS DY WITCH	respondents judy		y can inusi research		UTIMIE

Assessment of source (general)33843%Triangulating/comparing to other sources16721%Author14819%Research quality (methods, analysis, etc.)14719%Peer review12416%Organisation (funder or producer)10914%Journal published in10213%Personal judgement/experience/instinct8211%References made within source/bibliography517%Citations/impact metrics506%Consult other people253%Recommended by others213%Unclassified response486%	Method used by respondent	Number of responses making reference to it	Percentage (of those who answered the question, n=780)
Triangulating/comparing to other sources16721%Author14819%Research quality (methods, analysis, etc.)14719%Peer review12416%Organisation (funder or producer)10914%Journal published in10213%Personal judgement/experience/instinct8211%References made within source/bibliography517%Citations/impact metrics506%Consult other people253%Recommended by others213%Unclassified response486%	Assessment of source (general)	338	43%
Author14819%Research quality (methods, analysis, etc.)14719%Peer review12416%Organisation (funder or producer)10914%Journal published in10213%Personal judgement/experience/instinct8211%References made within source/bibliography517%Citations/impact metrics506%Consult other people253%Recommended by others213%Unclassified response486%	Triangulating/comparing to other sources	167	21%
Research quality (methods, analysis, etc.)14719%Peer review12416%Organisation (funder or producer)10914%Journal published in10213%Personal judgement/experience/instinct8211%References made within source/bibliography517%Citations/impact metrics506%Consult other people253%Recommended by others213%Unclassified response486%	Author	148	19%
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Journal published in10213%Personal judgement/experience/instinct8211%References made within source/bibliography517%Citations/impact metrics506%Consult other people253%Recommended by others213%Unclassified response486%	Organisation (funder or producer)	109	14%
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Recommended by others213%Unclassified response486%	Consult other people	25	3%
Unclassified response 48 6%	Recommended by others	21	3%
	Unclassified response	48	6%
Quality of writing 8 1%	Quality of writing	8	1%
Using external checklist 5 1%	Using external checklist	5	1%
Date research undertaken 5 1%	Date research undertaken	5	1%

Primary Intended Users and categories

62% of Primary Intended Users who answered the question said they use the source of research evidence to help judge if they should trust it; 18% of those who answered listed no other criteria. This last finding varied by group being as low as 8% for Northern Academics and as high as 27% for Southern Consultants: "*usually trust the research evidences published in an authentic source. for example; UN, DPs (DFID, USAID, DFAT...), international organisation, national but renowned organisation.. Also the agencies whom the DPs and UN bodies trust"* [Southern Consultant]. 20% of Primary Intended Users (who gave an answer to the question) do not judge research evidence in isolation and made specific reference to triangulating, cross-checking or comparing the research evidence with what they already knew or with other sources.

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Question 21: Have you received any formal training in how to use the internet to find RESEARCH EVIDENCE? [Question 20 was the option to select "Don't Know" to Question 19], n=850

evidence	Research evidence	seekers who r	ave been	trained in how to	use the i	nternet to fi	nd research	
	Yes	% of Total	Νο	% of Total	Don't know	% of Total	Total	% of Total
All n=850	271	32%	565	66%	14	2%	850	100%
Male	131	27%	340	71%	6	1%	477	100%
Female	136	38%	218	60%	7	2%	361	100%
Prefer not to	say 4	33%	7	58%	1	8%	12	100%
North	113	32%	234	67%	4	1%	351	100%
South	158	32%	331	66%	10	2%	499	100%

The table above shows that 32% of respondents in this sample ("research evidence seekers") had been trained in how to use the internet to find research evidence. There was no difference when looking at the North and South sub-samples, but a possible difference is noticeable when looking at gender with 38% of women (136 out of 361) saying they had received formal training in how to use the internet to find research evidence, compared to 27% of men (131 out of 477).

Question 22: How often do you search the internet (from any location and using any device) for RESEARCH EVIDENCE for yourself or for other people as part of your work? (Please tick one box only), n=850



Figure 16 Frequency of searching the internet for research evidence

Table 24: Frequency of searching the internet to find research evidence online

Frequency	Number of responses	%
Many times a day	213	26
A few times a day	173	21
About once a day	66	8
More than once a week but not every day	222	27
Once a week	47	6
Less often than once a week	110	13

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Frequency	Number of responses	%
Not at all	2	0
Total:	833	100
Don't know	17	

The chart above excludes the 17 respondents who selected "Don't know" and shows that about a quarter of this sample search the internet for research evidence for work many times a day and 82% search at least as often as more than once a week. The two respondents who said "Not at all" (i.e. who do not look online for research evidence) were a Southern Researcher/Academic and a Project/Programme Manager for a Government Donor Agency in the South who had explained in earlier questions that they use evidence but other people collect it for them when requested. These two respondents were redirected to Question 33 onwards and the sample for Questions 23 to 32 becomes 848.

46% of respondents who were able to say how often they searched the internet for research evidence, said that they searched a few or many times a day (386 out of 833). There appears to be a difference between North and South for this result:

39% of those based in the North answered a few or many times a day compared to 52% of those based in the South, i.e. those in the South tend to search more frequently.



Figure 17 Frequency of searching the internet for research evidence

48% of Primary Intended Users (compared to 46% of all Intended Users) said they searched online for research evidence for work a few or many times a day. The chart below shows how this behaviour varies by category. The numbers of respondents in each Priority Target Group requires large percentage gaps between findings in order for conclusions about differences in behaviour to be inferred but we were able to identify that Academics/Researchers (globally) were more likely to be searching this frequently for research evidence, than any other group.



Figure 18 Primary Intended Users searching online for research evidence a few or many times a day, by category



Question 23: Please think about the last time you searched online for RESEARCH EVIDENCE for yourself or other people for work. Which, if any, of the following did you do? (Please tick all that apply), n=848

Figure 19 Respondents' approach to searching



Table 25: Respondents' approach to searching

Approach to searching	Number of respondents	%
Used a search engine (e.g. Google) and typed in one or more words about the subject you were interested in	760	90
Used a search engine (e.g. Google) and typed in one or more words to find a specific article, report or paper	597	70

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Approach to searching	Number of respondents	%
Used a search engine (e.g. Google) and typed in one or more words to find a specific website	452	53
Visited one or more bookmarked websites	396	47
Other approach to searching online (please specify)	101	12
Don't know	8	1
None of the above	1	<1

848 respondents answered the question. 54% used a search engine to navigate their way to a known website which means that a proportion of organic search in website statistics could be accounted for by people who are using a search engine as a substitute for bookmarking or typing a full address into the navigation bar on a browser. If this is the case in the wider population, it implies a need for portals to focus on homepage design and website name promotion.

101 respondents provided one or more other approach to searching. Those occurring most frequently were searching online resources provided by a library, research databases such as ResearchGate, or citation/bibliographic databases (particularly PubMed).

The chart below illustrates the distribution of responses among the Primary Intended Users.

Figure 20 Approaches used by Primary Intended Users, the last time they searched online for research evidence



The table below focuses on responses from Southern Civil Servants who are research evidence seekers, n=55:

Table 26: Southern Civil Servant research evidence seekers' approach to searching

Approach to searching	Number of respondents
Used a search engine (e.g. Google) and typed in one or more words about the subject you were	47

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Approach to searching	Number of respondents
interested in	
Used a search engine (e.g. Google) and typed in one or more words to find a specific article, report or paper	32
Used a search engine (e.g. Google) and typed in one or more words to find a specific website	23
Visited one or more bookmarked websites	22
Don't know	3
Other approach to searching online (please specify)	1
None of the above	0

Question 24: On that same occasion, while searching online for RESEARCH EVIDENCE, did you do any of the following? (Please tick all that apply), n=848

Figure 21 Action taken while searching for research evidence





Table 27: Action taken while searching for research evidence¹⁶

Action taken	Number of respondents	%
Read an overview, synthesis report or article to orient yourself to the subject	735	87%
Viewed a video	225	27%
Viewed a PowerPoint presentation	428	51%
Listened to an audio clip/podcast	139	16%
Followed a link to raw data	272	32%
Followed a link to a related article	644	76%
Used a website or database's own search engine	377	45%
Checked an online forum	154	18%
Downloaded a PDF document	734	87%
None of the above	7	<1%
Don't know	9	1%

The use of internal site search was of particular interest to the Evaluation team so was analysed more closely. There is no obvious gender or North/South difference among those who answered the question but there is a difference based on if respondents said they had received formal training in how to find research evidence online: 52% of people who said they had received formal training used a site search the last time they looked online for research evidence (140/271) compared to 41% of people who said they hadn't had formal training (233/563).

The chart below illustrates the responses provided by Primary Intended Users:

¹⁶ It must be remembered that the Market Research only reports on what people say they remember doing not what they actually did.









Question 25: On that same occasion what did you do, if anything, with the RESEARCH EVIDENCE you found during your search online? (Please tick all that apply), n=848



Figure 23 What respondents did with the research evidence they found online

Table 28: What respondents did with the research evidence they found online

Action taken	Number of respondents	%
Emailed it, or its website address, to a colleague	417	49
Saved or printed it for future reference	761	90
Mentioned it on Twitter	56	7
Mentioned it on a social networking site e.g. Facebook or LinkedIn	83	10
Sent it to an email discussion list	105	12
Other (please specify)	88	10
Nothing - I did not find any useful research evidence on that occasion	10	1
Don't know	12	1

Of the 88 Other responses, the most common next steps taken were:

Used/cited it in a report (31 respondents)

Used/cited it in academic paper/presentation (16 respondents)



The chart below presents the findings as provided by Primary Intended Users:

Figure 24 What Primary Intended User respondents did with the research evidence they found online



Across the evaluation research methods, there was a focus on investigating the extent to which social media is a means of discovering research evidence. The person making the research evidence available on social media need not be the originator or publisher, as this next chart shows by presenting the proportions of Primary Intended Users who mentioned on either Twitter or a social networking site, the research they found online.



Figure 25 Proportions of Primary Intended Users who mentioned on either Twitter or a social networking site, the research they found online



Q26: If you would like to explain any of your answers, please use the space below:

This question was asked to aid understanding of information behaviour of individual respondents in relation to the preceding three questions. There were 58 responses to this question.

Q27: What, if any, problems do you commonly experience in using the internet to search for, find or access RESEARCH EVIDENCE for yourself or other people, for work? (Please write in below), n=848

653 respondents out of 848 provided an answer; 195 selected the option "Not applicable/don't know". 574 of these were Intended Users of the research portals and repositories. 36 of these made comments that confirmed they have few or no problems and 4 comments could not be classified (meaning was too unclear). As a result, **73% of the 732 Intended Users asked this question commonly experience one or more problems in using the internet to search for, find or access research evidence for work, particularly:**

38% (204 of 538 Intended Users reporting a problem) Gated access to webpages or files (requires password, site blocked by organisation or country firewalls, subscription or payment required)

25% (135 of 538 Intended Users reporting a problem) Problems related to searching (don't know how to construct searches, general search engine problems e.g. Google, too many search results, etc.)



20% (107 of 538 Intended Users reporting a problem) Problems with Internet connection (low bandwidth, power failure, etc.) [14 of these were Northern respondents including those who commented they experienced it when doing work overseas].

3% (14 respondents of 538 Intended Users reporting a problem) Usability of specific websites

Other problems include:

- unable to judge sources for quality
- finding contradicting information within the same search
- being side-tracked (by interesting "stuff") while searching

Out of 497 Southern respondents (not limited to Intended Users), 28% reported problems relating to paywalls and firewalls, 21% reported problems with internet access, and 19% reported problems with searching the internet.

Q28a: Can you give us an example of a website (NOT a search engine) that you frequently use to find or access RESEARCH EVIDENCE for yourself or other people, for work? (Please write the name of the website below, including the website address if possible), n=848

663 respondents provided one or more examples (out of a possible 848). This question was deliberately positioned before Q33 so that any mentions of Eldis, R4D or SciDev.Net at this point would be unprompted. Some caution should be used in interpreting the findings from this question as some respondents listed more than one website, others named generic types of websites (these were excluded from analysis) and the naming of a website could be linked to how recently it was used. However, the data is useful for investigating what type of websites are frequently used and why (when combined with the data obtained in the next question).

The infographic below shows how frequently different websites were named, unprompted, by Intended Users (the size of the text is relative to the frequency of mentions and limited to the top 50 websites). The most frequently named websites were: WHO¹⁷, and the World Bank, with 42 and 40 mentioned respectively, followed by the PubMed, Lancet and ODI websites (all mentioned at least 20 times). Google, Google Scholar, Cochrane, DFID, ResearchGate and Eldis followed, with at least 10 mentions each. R4D was mentioned by 8 Intended Users and SciDev.Net by 3.

¹⁷ Some respondents named specific sub-websites from these organisations e.g. the World Bank Publications website; these sub-sites were counted separately, and do not appear in the infographic due to the infrequency with which they were mentioned.



Figure 26 Infographic indicates which websites were most commonly named by Intended Users as sources frequently used to find research evidence



Among the responses provided by Southern Civil Servants it was evident that the government websites of the countries in which they are based are key sources.

Q29: Why do you use this website frequently to find or access RESEARCH EVIDENCE for yourself or other people for work? (Please write in below)

Of the 663 respondents who answered Q28, 472 Intended User respondents gave usable responses to this question. These were analysed to identify any common themes. The most common reasons people gave were:

- Reliable content (trusted/of good quality/reliable) 175
- Content is relevant 156
- Comprehensive collection (breadth and volume) 102
- Website is easy to use or convenient 58
- Content is up-to-date 40
- Website provides links to other sources 25
- Content is well written e.g. good summaries or synthesis 20
- Full text material is free 14

If we assume that respondents use "being likely to find relevant content" as a prerequisite for repeated use of a website when looking for research evidence and thus exclude "Content is relevant" from analysis, then the next three most important criteria for respondents are: comprehensive collection, trusted content, easy to use/convenient website. The following websites were all described by one or more respondents as having all three of these criteria:



Maternal Health Task Force (based at Harvard School of Public Health) http://www.mhtf.org/

JSTOR (journal articles accessed via library subscription) http://www.jstor.org/

REACH Resource Centre (for emergency, recovery and development decision-making) http://www.reachresourcecentre.info/

3ie (International Initiative for Impact Evaluation) http://www.3ieimpact.org/

PubMed (biomedical citations database) http://www.ncbi.nlm.nih.gov/pubmed

Institute for Health Metrics and Evaluation (based at University of Washington)<u>http://www.healthdata.org/</u>

Questions 30 to 32

The free text responses provided for these questions have been analysed and reported on separately in Section 5 of the main Evaluation Report as an input to drawing out plausible pathways between portal use and uptake of evidence in policy and practice.

Q30: Comparing your experience now to two years ago, please select the response which most accurately describes your experience:

'I look online for RESEARCH EVIDENCE for work....' (Please tick one box only), n=848

Figure 27 Frequency respondents look online for research evidence in comparison to two years ago



The following chart shows how these proportions change for the Primary Intended Users only.



Figure 28 Frequency Primary Intended User respondents look online for research evidence in comparison to two years ago



Q30a: You said that you look online for RESEARCH EVIDENCE for work **[RESPONSE to Q30]**. Please use the box below to explain why this is. (Please write in below)

743 people provided additional information.

Q31: Comparing your experience now to two years ago, please select the response which most accurately describes your experience: 'Finding RESEARCH EVIDENCE online for work is...' (Please tick one box only), n=848





Figure 29 Ease of finding research evidence online compared to two years ago

The chart below shows how the proportions differ for Primary Intended Users only.



Figure 30 Ease of finding research evidence online compared to two years ago for Primary Intended Users



Q31a¹⁸: You said that finding RESEARCH EVIDENCE online for work is [RESPONSE to Q31]. Please use the box below to explain why this is. (Please write in below)

674 people provided additional information.

Q32: Comparing your experience now to two years ago, please select the response which most accurately describes your experience: 'My colleagues and I discuss the quality of RESEARCH EVIDENCE obtained online...' (Please tick one box only), n=848





Again, the chart below illustrates the proportions when looking at the Primary Intended Users only.

Figure 32 Frequency of discussing quality of research evidence obtained compared to two years ago (Primary Intended Users)



¹⁸ The results of the analysis of responses to Q30a, 31a and 32a can be found in the main report Section 6.



Q32a: You said that you and your colleagues discuss the quality of RESEARCH EVIDENCE obtained online [RESPONSE TO Q32]. Please use the box below to explain why this is. (Please write in below)

517 people provided additional information.

Q33a to Q33n: How often do you use the following websites (for any purpose)? Frequently, Occasionally, Rarely, Don't use it but aware of it, Not aware of it, Not sure (Please tick one box only per row), n=945

The chart below illustrates the level of use (at all) and awareness among Intended Users, of the three DFID portals, the sites used as comparators in the Value for Money assessment (Section 8 of Main Evaluation Report) and Google Scholar as a benchmark site.



Figure 33 Comparing use and awareness of the DFID funded portals and their comparators

The market research found that among Intended Users, awareness of the DFID portals ranged between 41% (SciDev.Net) to 54% (R4D), with Eldis occupying the middle at 47% as illustrated below. As a benchmark, Google Scholar's awareness among this same group was 76%.



Figure 34 Awareness and use among Intended Users



However, awareness is only part of the story as all the portals had some unmet potential to increase their use with between 21% (R4D) and 26% (SciDev.Net and Eldis) of those who were aware of the portals reported that they did not use them. Among these, just 16 were the same people and cut across several sectors, target group categories and countries. By comparison, Google Scholar's unmet potential for use was 15%. A conclusion one might draw from this analysis is that to attract 100 new users to R4D, for example, you need to make 126 people aware of it. Though, this should be approached with caution as it is unlikely to be as straightforward as this and absolute measures of awareness in themselves are unhelpful (although comparing year on year trends of awareness can be useful if promotional activity is being undertaken). However, it is reasonable to conclude that there is the opportunity to both increase awareness and to increase use by understanding what needs the portals are not meeting for Intended Users and using this understanding to guide decision-making about content, design, promotion, associated services, etc.

The same analysis was carried out on the three sectors that had more than 50 Intended User respondents: Health (considered to be relevant to all three DFID portals), Education and Generalist.



Figure 35 Awareness and use within health sector



Figure 36 Awareness and use within education sector





Figure 37 Awareness and use amongst generalists



A similar pattern of awareness and use can be seen among the Southern civil servants (see chart below).



Figure 38 Awareness and use amongst Southern civil servants

Other findings of note from the sample n=734 (Intended Users) include:

- 119 respondents said they use Eldis, R4D and SciDev.Net, including six Southern civil servants (in a mix of sectors and countries).
- 16 respondents said they were aware of but did not use any of Eldis, R4D and SciDev.Net.
- 198 respondents are aware of none of the three websites.

Eldis, R4D and SciDev.Net each had a small proportion of respondents who were aware of their website but did not use it (between 79 and 89 respondents). Among these, just 16 were the same people across several sectors, target group categories and countries.



Questions 34 to 48

Respondents were asked follow-up questions about their perception of the DFID portals depending on the response given in Q33 about their awareness or use of Eldis, R4D or SciDev.Net. Frequent users were asked why they use the website so often, while occasional, rare or non-users (who were aware of the sites) were asked what changes would need to be made, if any, to increase their use. It was not possible to randomise the order of the portals listed in Q33 for technical reasons so there is a slight limitation that those who were subsequently asked about all three portals will have been asked about Eldis first and SciDev.net last, and may have provided less information about the latter portal.

All the comments have been analysed for common themes and these are presented below with comments from Intended Users that illustrate these common themes.

<u>Eldis</u>

Frequent users of Eldis – largely because they appreciate the content (and some comments on ease of use, and from getting the email newsletter.)

It offers a lot of information on development work as well as manuals or handbooks valuable to our policy work. [Southern civil servant]

it really has very current information [Southern development worker in civil society, working in Agriculture, Food Security and Nutrition]

It tends to provide me with the kind of information which I need for my work, and it is more accessible than some of the other sites. [Southern development worker in civil society]

good repository of grey literature as well as published. [Southern academic/researcher]

Because it is really useful, and maybe the most efficient - among the ones i know - in terms of "value for time" and relevance of the findings. [Northern development consultant]

And from people who use it less frequently, or not at all, about what would need to change for them to use Eldis more often or at all (these were mostly about needing more content relevant to the respondent, but then improving the search function and the need to prompt them to use it/being discoverable]

Before I worked on development, and now on health, Eldis don't have much docs on health. [Southern civil servant]

More topics on public financial management and government budgeting [Southern civil servant]

interface. sometimes very hard to get to the information. needs to be indexed better. brings up superfluous records so i would just leave the website because it is just to time consuming to go thru it. [Southern development consultant]

I used to receive regular mailings which would lead me to follow up on interesting articles and then I might browse beyond these. The mailings stopped and I didn't pick up on this to revive them. [Northern development consultant]

I forget about it, ELDIS rarely comes up in M&E discussion groups or in social media [Southern development consultant]



Two respondents observed that the website was down (believed to be on different dates)

Well: I just tried to access it to refresh my memory. The main improvement I could see is making sure it loads at all: I couldn't access it. [Southern development consultant]

Well, at the moment the site appears to be down! My previous impression of Eldis was that it focused on agriculture, and I haven't looked at it recently as that's no longer what I'm working on. However, I'm open to looking again if the site comes back up. [Northern academic]

<u>R4D</u>

Frequent users of R4D - on why they use it so often; again largely because they appreciate the content, but also reputation comes up quite strongly

It offers valuable information for policy support work. [Southern civil servant]

Because it offers an excellent range of information (reports & projectetc.) - it's one of my bookmarked websirtes to refer to [Southern development worker in civil society]

This website provides me with most of the information I require in my day to day work. [Southern development worker in civil society]

Government's perspective; guaranteed quality. [Northern academic/researcher]

And from people who use it less frequently, or not at all, about what would need to change for them to use R4D more often or at all. The largest number of comments are to do with subject coverage not matching the respondents' needs, although given the nature of R4D, this seems to be an explanation for reduced/lack of use, rather than a criticism. A very close second is the search function and other design issues.

Most of the information i require is region specific and DFID is mostly country specific so not sure what change can be made [Southern development worker in civil society]

More structured packaging by region [Southern civil servant]

A better search function. Site is too cluttered and hard to navigate. Site assumes that you know what you're looking for and whether it is project based or not - in reality I want to browse thematically and have better breakdown of publications within each main theme. A summary on the main page would also be useful - it takes time to click through to the website hosting the article and often it is not relevant to what I am looking for. Often the papers are not available anyway. Although the site includes information on whether a paper is peer reviewed or not there is not further information on the credibility of the publisher. I prefer to use sites that I am familiar with and which provide this level of detail. [Northern academic/researcher]

SciDev.Net

Frequent users of SciDev.Net – on why they use it so often; also largely because they appreciate the content, but in this case the next common is being prompted to use it.

Collates information on new researches across a variety of themes and areas with links for further information [Southern civil servant]



Again it is a good way to keep up with research being conducted that relates to African issues [Southern development consultant]

It has good news and timely research [Southern media professional]

And from people who use it less frequently, or not at all, about what would need to change for them to use SciDev.Net more often or at all. No single factor emerges strongest: the three most common are to do with content topic (again, is that fair given it is a specialist site), improving design and reminding people to use it.

scientific information available is sometimes not giving a clear picture of what it is like in countries being looked at [Southern development worker in civil society]

More alerts from them made available including some of the articles in open access Journals [Southern academic/researcher]

Not a bad site but the page designs are too loud and generally distractive with the information in the blocks rolling up and down [Southern civil servant]

Comments also suggest that SciDev.Net was being confused with Science Direct either because of what the respondent says about having to pay for articles or because they admit it, e.g. *Apologies! I read this as science direct. Have never heard of this.* [Southern academic on climate change]

Q49: Any other comments on the questionnaire or topics covered

238 comments were submitted. There was some feedback on the length of the questionnaire but some respondents in every category of Intended User commented on what they had learned through doing the questionnaire, usually that they had learned about useful websites they had not previously known about, but also it had made them think about how they approach their searching.

Q50: We would like to ask a selection of people who have completed this survey a few follow-up questions by email or telephone. Would you like to participate in this further research? (Please tick one box only) Yes, No, n=945

423 respondents agreed to being contacted again and supplied either an email address or telephone number.

Q52: Would you like us to email you the final report of our evaluation? (Please tick one box only) Yes, No

766 respondents requested the final report and several commented that they were particularly interested in seeing the findings.



A.2.2 Market Research Numbered Questionnaire DFID PORTALS EVALUATION: Online market research

Questionnaire issued to Wave 1, Batch 2 onwards

Numbers have been added to the questions (including sub-questions/answer options where appropriate) based on the numbering used in the dataset. This is the questionnaire that was issued to Wave 1, Batch 2 and subsequent samples, and includes some questions not included in the version received by Wave 1, Batch 1. Some respondents will only have been asked some of the questions, based on the answers they gave earlier in the questionnaire.

Q1: Which region are you primarily based in?

East Asia and Pacific Europe and Central Asia Latin America and Caribbean Middle East and North Africa North America South Asia Sub-Saharan Africa

Q1a to Q1h: Which country are you primarily based in? [answer choices are a dropdown list dependent on the region selected in Q1]

Q1a_last10years to Q1g_last10years: Thinking of the last 10 years, for how many of these in total have you been based in COUNTRY.?

Less than 5 years 5 to 10 years Prefer not to say

Q2: Which type of organisation do you currently work for (if you are employed by more than one, please select the main one)?

University department / Research institute / Think tank	Private charitable foundation (e.g. Bill and Melinda Gates Foundation)
Consultancy (private sector or self- employed)	International civil society organisation (charity, faith-based organisation, etc.)
Multilateral organisation (e.g. UN)	National civil society organisation (charity, faith-based organisation, etc.)
Parliament / Political party	Independent library / information service
National Government (excluding overseas aid departments)	Media (e.g. national newspaper)
Government donor agency (e.g. USAID, DFID)	Network (e.g. professional association)
Local government	Other (please specify)



Q2a: please specify

Q3: Which of the following best describes your MAIN role in that organisation?

- Advisor / Consultant Communications / Marketing Community / Development worker Elected representative Fundraiser Journalist / Editor Lecturer Librarian / Information Professional
- Programme / Project manager Programme / Project support Researcher / Academic Research support Student Trainer Volunteer Other (please specify)

Q3a: Please specify

Q4: In which sector do you mainly work?

Agriculture, Food Security and Nutrition Climate Change Conflict and Security Economic Growth and Labour Education Energy Environment Gender and Equality Health Infrastructure Water and Sanitation No specific sector/generalist None of the above (please tell us in which sector you mainly work)

Q4a: Please specify

Q5: Which of the following age categories do you fit into?

Under 18 years 18 to 24 years 25 to 34 years 35 to 44 years 45 to 54 years 55 to 64 years 65 years or older Prefer not to say

Q6: What is your highest level of education?

Masters or Doctoral degree



Bachelors degree or similar Professional qualification High school or baccalaureate or A-levels Other/None of the above Prefer not to say

Q7: Are you

Female Male Prefer not to say

Q8: Which of the following best describes how often you access the Internet for any purpose (i.e. for work/leisure etc.)? This should include access from any device (Desktop, Laptop, Tablet or Mobile) and from any location (home, work, internet café or any other location). (Please tick one box only)

I use the internet many times a day I use the internet a few times a day I use the internet about once a day I use the internet more than once a week but not every day I use the internet once a week I use the internet less often than once a week Don't know

Q9: If you would like to explain your answer, please use the space below:

Q10_1 to Q10_6: Which of the following devices do you ever use to access the Internet for any purpose (i.e. for work/leisure etc.)? (Please tick all that apply)

Laptop or desktop computer Computer tablet (e.g. iPad) Mobile / cell phone Smart TV Other device (please specify) Don't know

Q11_1 to q11_12: How do you use the internet, if at all, to keep up to date with your sector/profession? (Please tick all that apply)

Periodically revisit favourite websites	Email colleagues / contacts to exchange information / articles
Subscribe to email newsletters/alerts	Join email discussion lists



Subscribe to RSS feeds

Sign up to follow blogs

Join groups on online social networks e.g. Facebook or LinkedIn Browse online journals Periodically monitor Twitter Use Google Alerts to monitor news stories

Other (please specify)

Don't know

Q11a – please specify

Q12: Do you ever have to find EVIDENCE of any kind for yourself or other people as part of your work? (Please tick one box only)

Yes No Don't know

Q13: Please think of a time you recently looked for EVIDENCE of any kind for work. What was the subject matter and what type of information or data were you looking for? (Please write in below)

Q14: Do you ever have to find RESEARCH EVIDENCE for yourself or other people as part of your work?

(Please tick one box only)

Yes No Don't know

Q15: If you would like to explain your answer, please use the space below:

Q16a to Q16q: How often, if ever, do you use the following sources to find RESEARCH EVIDENCE for yourself or other people as part of your work? (Please tick one box per row)

Frequently, Occasionally, Rarely, Never, Don't Know

- a) Ask colleagues to recommend sources
- b) Ask friends/family to recommend sources
- c) Help desks / enquiry services (online, telephone or face to face)
- d) National or local newspapers and/or their online sites/apps
- e) Radio programmes and/or their online sites/apps
- f) Television programmes and/or their online sites/apps
- g) Email newsletters/alerts
- h) Email discussion lists
- i) Social networking sites e.g. Facebook or LinkedIn
- j) Twitter



- k) Specialist journals in print or online
- I) Government websites of the country in which you are primarily based, e.g. national data portals
- m) Other organisational websites that make their own research, evaluation findings or data available online e.g. research institutes, bilateral donors, inter-governmental organisations or consultancies
- n) Websites that summarise, profile, link to or report on other people's research, evaluation findings or data
- o) Blogs
- p) Other
- q) Please specify

Q17: If you would like to explain any of your answers, please use the space below:

Q18: You said you use websites that summarise, profile, link to or report on other people's research, evaluation findings or data FREQUENTLY. If these websites were no longer available to you, what difference would that make to your work? (Please write in below)

Q18a: Don't know

Q19: How do you judge whether you can trust RESEARCH EVIDENCE that you find online? (Please write in below)

Q20: Don't know

Q21: Have you received any formal training in how to use the internet to find RESEARCH EVIDENCE?

Yes No Don't know

Q22: How often do you search the internet (from any location and using any device) for RESEARCH EVIDENCE for yourself or for other people as part of your work? (Please tick one box only)

Many times a day A few times a day About once a day More than once a week but not every day Once a week Less often than once a week Not at all Don't know



Q23_1 to Q23_7: Please think about the last time you searched online for RESEARCH EVIDENCE for yourself or other people for work. Which, if any, of the following did you do? (Please tick all that apply)

Visited one or more bookmarked websites Used a search engine (e.g. Google) and typed in one or more words about the subject you were interested in Used a search engine (e.g. Google) and typed in one or more words to find a specific article, report or paper Used a search engine (e.g. Google) and typed in one or more words to find a specific website Other approach to searching online (please specify) None of the above Don't know

Q24_1 to Q24_11: On that same occasion, while searching online for RESEARCH EVIDENCE, did you do any of the following? (Please tick all that apply)

Read an overview, synthesis report or article to orient yourself to the subject

Viewed a video

Viewed a PowerPoint presentation

Listened to an audio clip/podcast

Followed a link to raw data

Followed a link to a related article

Used a website or database's own search engine

Checked an online forum

Downloaded a PDF document

None of the above

Don't know

Q25_1 to Q25_8: On that same occasion what did you do, if anything, with the RESEARCH EVIDENCE you found during your search online? (Please tick all that apply)

Emailed it, or its website address, to a colleague Saved or printed it for future reference Mentioned it on Twitter Mentioned it on a social networking site e.g. Facebook or LinkedIn Sent it to an email discussion list Other (please specify) Nothing - I did not find any useful research evidence on that occasion Don't know

Q25a: Please specify

Q26: If you would like to explain any of your answers, please use the space below:



Q27: What, if any, problems do you commonly experience in using the internet to search for, find or access RESEARCH EVIDENCE for yourself or other people, for work? (Please write in below)

Q27a Don't know/not applicable

Q28a: Can you give us an example of a website (NOT a search engine) that you frequently use to find or access RESEARCH EVIDENCE for yourself or other people, for work? (Please write the name of the website below, including the website address if possible)

Q28b: Don't know/not applicable

Q29: Why do you use this website frequently to find or access RESEARCH EVIDENCE for yourself or other people for work? (Please write in below)

Q29a: Don't know

Q30: Comparing your experience now to two years ago, please select the response which most accurately describes your experience:

'I look online for RESEARCH EVIDENCE for work....' (Please tick one box only)

More frequently than two years ago Neither more nor less frequently than two years ago Less frequently than two years ago Don't know

Q30a: You said that you look online for RESEARCH EVIDENCE for work **[RESPONSE to Q30]**. Please use the box below to explain why this is. (Please write in below)

Q30b Don't know

Q31: Comparing your experience now to two years ago, please select the response which most accurately describes your experience: 'Finding RESEARCH EVIDENCE online for work is...'

(Please tick one box only)

Easier now than two years ago Neither easier nor harder than two years ago Harder now than two years ago Don't know

Q31a: You said that finding RESEARCH EVIDENCE online for work is **[RESPONSE to Q31].** Please use the box below to explain why this is. (Please write in below)

Q31b: Don't know

Q32: Comparing your experience now to two years ago, please select the response which most accurately describes your experience: 'My colleagues and I discuss the quality of RESEARCH EVIDENCE obtained online...' (Please tick one box only)



More frequently than two years ago Neither more nor less frequently than two years ago Less frequently than two years ago Don't know

Q32a: You said that you and your colleagues discuss the quality of RESEARCH EVIDENCE obtained online **[RESPONSE TO Q32].** Please use the box below to explain why this is. (Please write in below)

Q32b: Don't know

Q33a to Q33n: How often do you use the following websites (for any purpose)? (Please tick one box only per row)

Frequently, Occasionally, Rarely, Don't use it but aware of it, Not aware of it, Not sure

- a) BLDS Digital Library
- b) BRIDGE
- c) Communications Initiative
- d) DANIDA Research Portal
- e) Development Experience Clearinghouse (USAID)
- f) Devex
- g) Eldis
- h) Global Agricultural Research Archive
- i) Google Scholar
- j) Open Knowledge Repository (World Bank)
- k) Pambazuka News
- I) R4D (DFID)
- m) SciDev.Net
- n) Zunia

[Q34-38 are asked depending on response given to Q33g]

Q34: You said that you use Eldis FREQUENTLY. Why do you use this website so often? (Please write in below)

Q34a: Don't know

Q35: You said that you use Eldis [OCCASIONALLY]. What changes, if any, would need to be made to the website for you to use it more often? (Please write in below)

Q35a: Don't know

Q37: You said that you ARE AWARE OF BUT DON'T USE Eldis. What changes, if any, would need to be made to the website for you to use it? (Please write in below)

Q38: Don't know.



Q36: You said that you use Eldis [RARELY]. What changes, if any, would need to be made to the website for you to use it more often? (Please write in below)

Q36a: Don't know

[Q39-44 are asked depending on response given to Q33I]

Q39: You said that you use R4D (DFID) FREQUENTLY. Why do you use this website so often? (Please write in below)

Q39a: Don't know

Q40: You said that you use R4D (DFID) [OCCASIONALLY]. What changes, if any, would need to be made to the website for you to use it more often? (Please write in below)

Q40a: Don't know

Q41: You said that you use R4D (DFID) [RARELY]. What changes, if any, would need to be made to the website for you to use it more often? (Please write in below)

Q41a: Don't know

Q42: You said that you ARE AWARE OF BUT DON'T USE R4D (DFID). What changes, if any, would need to be made to the website for you to use it? (Please write in below)

Q43: Don't know.

[Q44-48 are asked depending on response given to Q33m]

Q44: You said that you use SciDev.Net FREQUENTLY. Why do you use this website so often? (Please write in below)

Q44a: Don't know

Q45: You said that you use SciDev.Net [OCCASIONALLY]. What changes, if any, would need to be made to the website for you to use it more often? (Please write in below)

Q45a: Don't know

Q46: You said that you use SciDev.Net [RARELY]. What changes, if any, would need to be made to the website for you to use it more often? (Please write in below)

Q46a: Don't know

Q47: You said that you ARE AWARE OF BUT DON'T USE SciDev.Net. What changes, if any, would need to be made to the website for you to use it? (Please write in below)

Q48: Don't know.

Q49: Any other comments

Q50: We would like to ask a selection of people who have completed this survey a few followup questions by email or telephone. Would you like to participate in this further research? (Please tick one box only) Yes, No

Q51: How would you prefer to be contacted regarding participation in further research? (Please tick one box only) Email, Telephone

Q52: Would you like us to email you the final report of our evaluation? (Please tick one box only) Yes, No


Appendix B. The Country Case Studies

The original plan was to conduct case studies in Ghana, Tanzania and Bangladesh but security concerns in Dhaka led to a change in the third country which, after consultation with DFID, was agreed to be Nigeria.

B.1 Detailed description of methods used

The purpose of the in-country studies was to gather much more detailed evidence about intended portal users' information-seeking behaviour in their everyday work than could be elicited from the market research alone. The case studies employed a set of qualitative methods to better understand the policy-making context and to evaluate the portals' usefulness in context. The methods used were: semi-structured interview, face-to-face session in-country (contextual inquiry plus portal evaluation), research diaries and finally a re-run of the heuristic evaluation conducted during inception, to take on board what was learned about Intended Users from the in-country studies. This combination of these methods allowed us to capture and analyse behaviour regarding portal interaction, stories of use and uptake that illustrate the broader picture of policymaking within which the portals sit, and an assessment of the usability of the portals from the point of view of the intended audiences (both actual and potential users).

B.1.1 Recruitment and sampling

Participants were chosen using purposive sampling, based on the likelihood that they would provide useful and interesting data for our purposes. These participants came from the agreed Southern user categories but they are not expected to be representative of the wider Intended User population. Our aim was to engage Intended Users who were not current users of the DFID portals. This had several advantages:

- the participants were not over-familiar with the portals under study. Regular users of a portal react differently when using the portal than those who have not used it before;
- we could learn about people who are Intended Users but who have not embraced the portals into their working day;
- we introduced the portals to a new set of people.

Participants were chosen according to the following criteria. Participants are sought who are:

- in one of the seven categories of policy actor listed in Table 3;
- a national of the country under study, or have lived in the country for more than 10 years;
- users who regularly seek and use information to inform policy, programmes and practice;
- users who use the internet regularly for some purpose;
- prepared and able to engage with the project.

Participants fitting the following criteria were excluded from detailed analysis. Potential participants who:

- have lived, studied or worked in the North for more than 5 years within the last 10 years; two of the participants from Ghana have lived outside the country for 6 years GH7 and GH8. They are used in our discussions when an interesting comparison can be made with other participants;
- seek and use information to inform policy, programmes and practice less than twice a week.



B.1.2 Semi-structured interview

A standard semi-structured interview was conducted from the UK via phone to explore the Intended User's background, role and activities, and their willingness to take part in subsequent aspects of the study. The aim of these interviews was to locate participants who fitted the recruitment criteria above and who could provide recent examples of using research evidence to influence policy, programmes or practice. It was particularly important that they could provide a specific output such as a report or video or presentation that illustrated the use of evidence in this way. The process is summarised below; steps 2, 3 and 4 were piloted three times with volunteers and refined after each pilot.

The interviews provided useful preparation for the participant and for the researchers who were travelling to the country, but in several cases it was not possible to conduct the interview due to time and connectivity constraints. Where this happened, a preliminary phone conversation was held incountry to confirm the participant's availability and establish a suitable example of evidence use.

The semi-structured interview process

- List of suitable people within the country was compiled to find people who use evidence in their everyday work on policy, programmes and practice; we relied on a 'point person' in each country. This person had knowledge of the country, was used to identify likely participants who fit this criteria. Just about all the participants contacted were carrying out relevant work.
- Contact people: An introductory email was sent by the point person to each contact on their list inviting them to take part, attaching a project information sheet, and copying the OU interviewer. The OU interviewer emailed contacts to arrange a time to call and requesting a phone number to call them on. If this didn't get a response, and there was a phone number, the interviewer phoned the contact.
- Confirmation of interview: An email was sent to confirm the interview time, send a consent form to read and instructions for preparing for the interview:

Please prepare for the interview by identifying a couple of recent and typical examples of looking for and using evidence to develop policy, programme or practice. For example "I was drafting a note related to the use of ICT in schools". I would like you to be able to recall the key activities that you carried out during this work such as: what evidence you used; where you found it; why you chose it; and how it informed your thinking. We will discuss these when we talk.

It would be helpful if you can identify a concrete output or outputs such as a report or presentation or sections of a policy document that demonstrates how the research evidence was used and will provide a focus for our discussions.

Interview

A brief introductory discussion checked whether the participant was ready for the interview and asked them if the interview could be audio recorded (most were). Recording was carried out using an Olympus digital voice recorder equipped with telephone pickup microphone placed between the telephone earphone and the interviewer's. Some notes were also written during the session.

The first set of questions determined the participant's suitability. This was followed by a discussion of their example(s) of evidence seeking. The aim here was to ascertain they had a recent, relevant example which they could talk about fluently and that it was not confidential (which couldn't be used in this study). They were asked to email any outputs they mentioned to be used as a focus during the face to face sessions.



At the end of the interview they were asked if they were willing to take part in a face to face session and as many details as possible were established.

Outcomes

The semi-structured interviews lasted between 5 mins (if a participant had a very restricted schedule) to 30 mins. Participants provided 1 to 3 examples, with none being confidential. The times for many face to face sessions had to be arranged when in-country as they were not able to commit to a time 1-3 weeks in advance. A small summary of key points about each participant was written up for use when preparing for and running the face to face sessions. Table 29 shows a summary of contacts made, and how many of the interviewees were seen in-country.

The interviews were designed to locate suitable participants. Detailed findings about their search behaviour were collected during the face to faces sessions. Seven people did not take part in a subsequent face to face session. Their self-reported search behaviour was similar to others in their category. These are combined with the findings from the face to face sessions.

Table 29:	Phone Interview	vees				
Country	Number in list	Number contacted	Number of interviews	Number of these seen in- country	Comments	
Ghana	28	17	5	4	Two point people in UK.; process took 3 weeks	
Tanzania	60+	11	6	4	Four point people; two in- country and 2 in UK; process took 4 weeks	
Nigeria	20	9	9	5	Four point people; all in- country; process took 4 weeks	

Challenges

The main challenge was the difficulty faced in arranging the interviews. Reply rates to the emails were low. Mobile phones often didn't connect. This was particularly true in Ghana.

The majority of participants gave mobile phone numbers as the best way to contact them. Some interviews were arranged but due to difficulty getting through on the phone couldn't be carried out in time for country visit. It was often hard to hear the participant clearly – a function of the mobile phones and people's accents. This necessitated asking them to repeat themselves. The phone interview schedule fell across some national holidays and across national elections in Ghana. The elections made it hard to contact the MPs in Ghana. One MP interviewed had a particularly interesting use of information, but was too busy electioneering in his/her constituency to meet for a face to face session.

The process described above wasn't followed when the only way to interview someone was to carry out the interview on the spur of the moment. Some people seemed suitable but were out of the country at the time of the sessions. Some email addresses and phone numbers provided by point people didn't work. A number of people were retired, out of the country or on vacation at the time of the sessions, had changed career, were in a different city (some of these were still interviewed). Two people suffered a bereavement during the process, one person had a baby. A lot of people were happy to be interviewed in evenings or weekends.

The process of recruiting participants worked best when the point person personally knew the person and could encourage them to take part, that it was legitimate etc.



B.1.3 Face-to-face sessions in-country

The face-to-face sessions consisted of two parts. The first part was conducted using Contextual Inquiry and focused on an example where the participant had identified and used evidence recently to influence policy, programmes or practice. The example used was identified either during the semistructured interview or immediately prior to the face-to-face session being conducted. In a few cases the example was identified during the face-to-face session. Contextual inquiry gathers data to explicate a user's daily tasks and ways of working. It follows an apprenticeship model with the researcher working as an 'apprentice' to the participant in their place of work, using a combination of observation, discussion, and reconstruction of past events (in our case, the recent example of evidence use).

The second part of the session focused on the three live DFID portals (Eldis, R4D and Scidev.net) and asked participants to use the portals to find information relevant to their example topic and specific articles (as set out in evaluation question 2). The specific articles used were chosen randomly and are listed in the user profiles.

30: Specific articles used in the second half of the face-to-face session		
"How to communicate in an interdisciplinary team" by Jessica Thompson, December 2013		
"Big data for development: Facts and figures" by Emmanuel Letouzé, April 2014		
"Strengthening of health systems for equity and development in Africa", Africa Health Strategy 2007-2015		
"Three tools to unlock finance for land-use mitigation and adaptation" by Falconer et al, July 2015		
"Development Finance Institutions and Infrastructure: A systematic review of evidence for development additionality" 2010-2012		
"Using climate information to achieve long-term development objectives for African ports" by Woolhouse and Lumbroso, 2015		

The face-to-face session was piloted three times with volunteers and the design evolved during that process. Specifically, the importance of focusing on an output from the example of evidence use was emphasised.

Challenges

Once participants had agreed to take part in the study, there were few challenges. These participants welcomed the researchers in-country and were very willing not only to spend time with us but also to engage with the process.

Outcomes

A summary of the data collected for each participant, and the spread of participants across categories and organisations is provided in the main report (section 5). In some cases, the full face-to-face session was not possible because of internet connectivity or because of limited time on the part of the participant. However we collected the agreed number of full face-to-face sessions (8 per country), and were able to supplement this number with several further sessions and informative interviews with relevant participants. Once in country we followed the purposive sampling approach and took the opportunity to collect data from any participants we could access and who would provide useful input to any of the Evaluation's questions.

The sessions were conducted in the participant's normal place of work, using their normal online environment where possible. A small number of participants came to the researchers' location bringing their own laptops. Sessions lasted between 30 minutes and 4 hours, with the majority lasting between 90 and 120 minutes. All participants agreed to be audio-recorded and all but one agreed to be video-



recorded, but in two of the sessions (GH2 and GH13) internet connectivity failed and so videorecording was not required. The video recordings focused on the participant's computer screen.

Detailed user profiles were developed from the data collected during these face-to-face sessions, and these are included in the sections below.

B.1.4 Research diaries

During the contextual inquiry part of the face-to-face session, participants were asked to re-construct their behaviour in the context of a recent example. This provides an authentic task for us to study, but it is necessarily compressed into a short time. The diary was intended to provide a different perspective on the use of research evidence by our participants, through a snapshot of activity captured over a two-week period. During the diary study, participants were asked to record their activities each day using a short online questionnaire that was mobile-enabled, i.e. it could be completed on a smartphone.

Diaries have several advantages: they do not take up much researcher time to collect data; they do not require special equipment or expertise; and they are suitable for recording data about a user's normal everyday work over a longer time frame than contextual inquiry allows.

All participants who undertook the face-to-face session were asked if they would participate in the diary study, and most agreed to try. However, diary studies rely on participants being reliable and remembering to complete them at the assigned time and the data collected depends entirely on the activity of the participant at the specific time when the diary is run.

The diary process

Initially we expected to use SurveyMonkey to run the diaries, and although SurveyMonkey is a popular platform, the design interface and distribution options are limited compared with Qualtrics, which is a far more powerful platform. The team chose Qualtrics for this project, after taking into account the views of the Open University's Student Survey Office, which distributes online surveys to tens of thousands of participants every year. Other than an unexpected fault in the automated distribution of the journals after a few days of the Diary Study, Qualtrics was a very useful platform. Even then, the daily journals could be distributed manually through the Qualtrics interface.

The exercise was designed to send each participant a journal (short questionnaire) each day to be completed during the course of that day. In general participants completed each journal on the day sent, occasionally on the next morning. Four diary sessions were run, each lasting 10 working days. Diarists were sent instructions and a rehearsal diary beforehand, in order to practice using the survey system. A few people (4) had trouble usually due to not understanding to click on a link that took them to the online journal, but were helped to access it. The study itself consisted of 9 daily journals containing the same questions, and a reflection journal on the 10th day which asked participants to consider their activity over the previous two weeks.

During each 10 day diary session several text reminders were sent, as needed, and a thank you email at the end. Individual emails from participants were replied to promptly so as to not interrupt the diary process.

Although over 30 people agreed to complete a diary when asked during the face to face sessions to taking part, and were sent a journal each day, a few (7) never engaged. This turned out to be due to a number of reasons: cost of internet access, internet not working, travelling for work, life events. The reason for the gap between number of journals opened each day and number completed is that on any particular day a few people would open the journal but make no more progress. This was often due to work commitments, internet access, travel and similar reasons.



The diary was developed iteratively with several pilot runs, and one final pilot that was sent to the rest of the team.

Challenges

The main challenge faced at this stage was to secure sufficient engagement from the participants to complete the 10-day exercise.

Concerns about the quality of internet connectivity in the participant countries were raised during the pilot stage and redesign of the online journals mitigated this to some extent (removal of pop-up windows and survey logic requiring higher bandwidth). An email-only version of the survey was designed at a later stage, as an alternative if internet connectivity was very poor, but in the event, this was not required.

Ideally, a Diary Study includes a final interview with the participant, based upon the diary entries. As this was not possible given the time constraints, a Reflection journal was included on the 10th day. This Reflection journal provoked the most discussion amongst colleagues and was not finalised until some of the questions were relocated to the Market Research. These issues were resolved, although the key meeting was held several days into the Ghana in-country study. Fortunately, there was sufficient time to finalise the journal questions for distribution a few days later.

Outcomes

A summary of the data collected for each participant, and the spread of participants across categories and organisations is provided in the main report (Section 5). Across the three case study countries, 16 'complete' sets of diary entries were collected, where 'complete' means that the participant stayed engaged to the last entry on the 10th day.

Details of the questions asked in the daily and reflection journals, and the diary data are contained in the sections below.

B.1.5 Heuristic Evaluation

This is a well-established expert-based evaluation method. Originally pioneered in the early 1990s it is commonly used in commercial practice and has been adapted for some specific types of online product (although not specifically for portals). Nielsen's set of 10 heuristics form the basis of an expert review of the product that combines an expert view of good interaction design and a clear understanding of the user population (Budui & Nielsen, 2010). In this set of studies we conducted an initial heuristic evaluation of the three DFID portals currently online during the inception stage. After the in-country studies, the exercise was conducted again, this time taking into account what had been learned about Southern users.

The results of this second exercise are contained in the sections below.

B.1.6 Generating the user profiles

A user profile was generated based on the project's evaluation questions and the analysis frameworks being employed. The data from the three methods employed to study the participants' information behaviour and research evidence use was the basis for generating a user profile for each participant who took part in a face-to-face session. Data from the phone interview, the face-to-face session and the diary were combined in this one representation for compactness.



The category numbers used in the user profile are listed below:

- 1. Elected member of national government, e.g. Member of Parliament
- 2. Elected member of local or regional government, e.g. member of regional legislature or council, Councillor/local council member
- 3. Civil servant or public servant; a person in the public sector employed for a government department or agency
- 4. International aid/development worker in civil society e.g. employed by a national or international non-governmental organisation, or community based organisation
- 5. Academic/Researcher, e.g. researcher or postgraduate student based in a research institute, university, or think tank
- 6. Development consultant, e.g. employed by a private sector consultancy company
- 7. Knowledge broker/intermediary for policy makers, e.g. Parliamentary committee clerk, Parliamentary researcher, Parliamentary librarian, assistant/secretary to Member of Parliament, Government departmental librarian
- 8. Media professional, e.g. journalist, editor, commentator for online, print or broadcast media



B.2 Country Case Study ICT Context

Our case study participants all relied on accessing portals and websites through computers and mobile devices. This section will talk about the current landscape for such access.



Figure 39 Global trends in access to ICT 2001-2014 (penetration rates per 100 inhabitants)

Access to ICTs continues to grow worldwide with mobile-cellular leading the way and while mobile-cellular growth rates are slowing down, they continue to grow most in the developing world (United Nations, 2014). For instance, whereas the subscription rate in developing countries increased from 22.9% in 2005 to 91.8% in 2015 (a 300% rise), that of developed countries only rose from 82.1% to 120.6% within the same period, representing a 40% rise.



Figure 40 Mobile-Cellular phone subscriptions per 100 inhabitants (ITU, World Telecommunication/ICT indicators database.)



Note: The developed/developing country classifications are based on the United Nations M49 *Data for 2015 are estimated

Unlike Northern countries where access to the internet for most people was initially through fixed lines (e.g. modem and telephone line) and desktop computers and has more recently been available as mobile broadband, in the developing countries it is the growth of mobile networks that is fuelling Internet usage (United Nations, 2014). The graph in Figure 40 Mobile-Cellular phone subscriptions per 100 inhabitants shows that mobile broadband subscription in developing countries grew from 0.8% in 2007 to almost 40% in 2015.







Source: ITU, World Telecommunication/ICT indicators database. Note: The developed/developing country classifications are based on the United Nations M49

There is a similar growth in internet usage in our Case Study Countries with Nigeria leading the way, and as data for each country will show below, this is fuelled by the growth in internet access through mobile broadband. From our own experience with our three case study countries use of internet and contacting participants on mobile phones did seem easier in Nigeria. Individual subscription to broadband requires an access device (computer, smart phone or tablet) and the cost of these can be a barrier. It is for over 80% of people in Nigeria (Nigeria's National Broadband Plan 2013- 2018). In the UK 66% (Q1 2015) of UK adults had a smartphone (Ofcom, 2015).







Mobile broadband is provided over 3G and 4G mobile phone signals²⁰. It offers high-speed data transmission, enables multimedia communication, improves access to information, and supports high-quality internet connectivity. With mobile prices now very low in many African countries, it is anticipated that mobile operators in these countries will increasingly turn their attention to coverage, network quality and value-added services, as areas where they can differentiate themselves (Policy Paper 4 - Understanding what is happening in ICT in Ghana)²¹.

1.1.1.1 Government versus Private Company usage of internet

The World Economic Forum's Network Readiness Index sub-indexes allows comparison of countries on various indicators. Comparing the extent of business internet use against government use shows that business usage is more advanced in Ghana and Nigeria while government usage is more advanced in Tanzania. This will affect the ability of government departments and outside agencies to use research evidence when developing policy.

¹⁹ extracted from http://www.itu.int/en/ITU-D/Statistics/Documents/statistics/2015/Individuals_Internet_2000-2014.xls

²⁰ 4G is up to five times faster than the UK 3G average (Uswitch)

²¹ Research ICT Africa (2012) Understanding what is happening in ICT in Ghana



			N Contraction of the second seco	
	Networked Readiness Index	The political and regulatory environment	Business usage	Government usage
Ghana	101	50	84	92
Nigeria	104	116	79	95
Tanzania	118	83	121	100

Table 31: World Economic Forum's Network Readiness Index sub-indexes (World Economic Forum, 2016)

Other common characteristics of internet access in the South also hold true for our case study countries:

- It is increasingly widespread but levels vary markedly between countries
- Coverage is better in urban areas
- Access through fixed lines is a smaller percentage and power and equipment problems make it less reliable hence mobile broadband access is increasingly more important
- Cost of access is high relative to salaries
- Despite more mobile-friendly websites being available, access via a mobile device remains more limited for many reasons: small screen size, lack of windows, javascript, speed, latency, cost (Zakas, 2013)

B.2.1 Nigeria ICT Country Context

A regional IT manager for West Africa, working for a large organisation, commented that the use of the Internet has increased dramatically especially in the last 5 years; that people use smartphones to access the Internet and that it "follows you everywhere". Fibre is available in the centre of large cities, and if it doesn't go to an office (it is often too expensive to lay this extra fibre) it is available to the last mile. For a large office, the first choice for Internet access is fibre, although an alternative method is needed as a back-up (satellite access or mobile phones) due to reliability issues. The IT manager expected fibre to become more extensive in cities, but not elsewhere and that here wireless will continue be the method of choice as it is easier to set up the infrastructure (one base station with its own power supply connected to a trunk line can supply an area of up to about 10km radius (Public Telecommunication Networks Unit, 2001)).

From 2012-13 the length of fibre optic lines (land and submarine) increased by 20%, the number of Base Transceiver Stations sites for mobile networks by 22%, and there were more microwave radio links (these provide the link between base stations) (2014 Year End Subscriber/ Network Data Report for Telecommunications Operating Companies in Nigeria). As the Nigeria National Broadband Plan 2013 – 2018 says, "Nigeria's International connectivity landscape has come a long way from a single international submarine cable system with 340 GB total capacity installed in 2001 to a total of four cable systems with international bandwidth capacity of over 9 Tbit/s by 2012 (Nigeria's National Broadband Plan 2013- 2018).

Teledensity (the number of telephone connections for every hundred individuals) has increased from 0.4 (2000) to 99.39 (end 2014) – from one of the lowest in the world to leading in Africa with over 99% of this via mobile phones (2014 Year End Subscriber/ Network Data Report for Telecommunications Operating Companies in Nigeria). Note we found many people with more than one SIM for reliability issues therefore 100% penetration does not mean 100% of the population.



The total Internet subscriptions were 76.5 million as at December 2014, with over 99% via mobile network and only 0.2% by fixed wired/wireless (2014 Year End Subscriber/ Network Data Report for Telecommunications Operating Companies in Nigeria).

Problems with the operating environment reported by mobile companies:

- Serious ecosystem issues: heightened state of insecurity in some parts of the country, the vandalism on telecommunications infrastructure, damage to infrastructure (often by agencies of State, Federal & Local Governments) seeking to exert inordinate taxes
- The high costs of generating power at cell sites (required due to intermittent and unreliable power)
- The high cost of bandwidth subscription to the core/backbone network
- Customer churn (people switching between networks) (2014 Year End Subscriber/ Network Data Report for Telecommunications Operating Companies in Nigeria)

B.2.2 Ghana ICT country context

The comments of the regional IT manager for West Africa working for a large organisation above also apply for Ghana. As with Nigeria, infrastructure is increasing. The capacity of submarine cables doubled from 2012 to 2013 (to 12.3 terabits) (Ministry of Communications, Ghana, 2015). Teledensity is at over 100%, and is carried by the mobile network.

Ghana is among the African countries with the most competitive prices for mobile telephony services and it ranked 4th position in the first quarter of 2013 for prepaid mobile and for ICT services mobile telephony is the dominant platform even in business and residential areas that have fixed lines (Policy Paper 4 - Understanding what is happening in ICT in Ghana).

	2010	2011	2012	2013
Teledensity	76.6%	86.1%	102%	108.23%
/Penetration Rate:	(17,714,846)	(21,450,564)	(25,903,408)	(28,296,904)
Fixed Line	1.2%	1.1%	1.12%	1.03%
	(277,897	(284,721)	(284,981)	270,422
Mobile	75.4%	84.6%	101.3%	107.19%
	(17,436,949)	(21,165,843)	(25,618,427)	(28,026,482)

Table 32:	Teledensity in (Ghana (Ministry o	f Communications,	Ghana, 2015)
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B.2.3 Tanzania ICT Country Context

In a phone interview, a regional IT manager for East Africa working for a large organisation made very similar comments to the IT manager in West Africa.

Fibre links are available for offices or can be laid for an average cost of \$500. Subscription costs for a dedicated link are: 2MB average \$500/month, 8MB average \$1380/month with a choice of companies to use. It is quite stable, but they do get break downs that can last 2-3 hours per day. To deal with this they switch to alternate connection methods. The causes of interruption of connection are things like power off



at connection point and fibre disconnections both within and outside the country. The coverage for Mobile phones and dongles (MiFi) is good for 3G, 4G is becoming available, and prices are coming down as there is more competition. For example, 1MB was \$200/month 4 years ago, but now costs \$67/month.

Teledensity in Tanzania is lower than for Nigeria or Ghana at 71% as of 2014, but again the vast majority is carried by the mobile network (The Tanzania Communications Regulatory Authority, 2015). As Research ICT Africa points out, this is a nominal penetration rate as the reality is that an increasing number of mobile users are acquiring second, third and fourth SIMs in order to be able to place on-net calls over multiple networks and take advantage of promotional pricing (Research ICT Africa, 2013).

The Tanzania Communications Regulatory Authority estimates that there are 9 312 272 users of the internet in the country as of 2013, translating into a penetration level of 21% (The Tanzania Communications Regulatory Authority , 2013).

However, RIA point out that "this figure includes estimates of internet café users, organisation/institution use and household and individual use (Research ICT Africa, 2013). The combination of different sources and methodologies makes this estimate very unreliable and, therefore, this high level of penetration is extremely unlikely. The 2012 RIA Tanzania ICT Survey findings put the total number of internet users at 3.5% of the population over the age of 15. This shows how difficult it is to measure any of these figures accurately.

B.2.4 UK ICT Country Context

Similar to Southern countries the rate of growth in mobile data use continues to outstrip that on fixed broadband networks; it grew by a factor of 64% over the past year. However, the volume of data carried over mobile networks is still a small proportion (around 1%) of data carried over all networks (Ofcom, 2015). "Levels of mobile coverage in rural areas continue to be lower than in urban areas. A new study has shown this reflects the higher costs per user of providing coverage in less densely populated areas."



B.2.5 Internet Coverage by Access method

The following tables are indicative only. Each country measures and reports different figures. For example Ofcom reports premises coverage while Nigeria talks about teledensity (the number of telephone connections for every hundred individuals). In terms of understanding the access premises coverage gives a more accurate picture. Figures for the UK are included for comparison only.

Table 33: Internet Coverage by access method (2G, 3G, 4G)

Three generations of technology used to deliver mobile services. It can be used for voice and/or data	Nigeria (2013) (Nigeria's National Broadband Plan 2013- 2018)	Ghana	Tanzania	UK (2015 data) (Ofcom, 2015)
2G provides voice, text services and capable of transferring data, but only very slowly and unreliably The maximum broadband speed is 473Kb (Marling, 2016)	98 % teledensity	Almost 60% of individuals subscribe to a mobile telephone service but close to one- third (28%) have multiple SIM cards (Policy Paper 4 - Understanding what is happening in ICT in Ghana)	As of 2013, 89% of population is covered to the -95dBm signal level, with 54% of geography covered (Research ICT Africa, 2013)	 > 99% premises (outdoors) covered by at least one operator The geographic area cover is 84% No change over last year
3G downloads at over 5Mbps (theoretical limit of 10Mb, but a newer standard called DC-HSDPA allows real-world speeds of 10Mb+ (Marling, 2016)	< 35% and mostly in urban areas. The aim is national 3G wireless coverage to at least 80% of population by 2018.	Exists. Vodafone claims up to 14.4 Mbps on 3G http://www.vodafone.com.gh/perso nal/internet/mobile-internet	Exists	 > 99% premises (outdoors) covered by at least one operator The geographic area cover is 79%
4G Connections speeds of over 10Mbps. Used mostly to provide data access and not voice (But to use 4G requires a relatively new phone or dongle as it is not supported by most older devices (Marling, 2016))		Surfline Communications launched first commercial 4G Frequency Division Duplexing Long Term Evolution (FDD-LTE) network in Accra and Tema and real world speeds are likely to average around 80Mbps (TeleGeography, 2014)	Exists	90% premises (outdoors) covered by at least one operatorGeographic area covered is 48%



Internet Coverage by access method (Broadband) Table 34:

	Nigeria (2013) (Nigeria's National Broadband Plan 2013- 2018)	Ghana	Tanzania	UK (2015 data) (Ofcom, 2015)
Broadband - high-speed internet connection that has surpassed dial- up as the standard way to connect to the internet Provided through: ADSL broadband, cable broadband and 3G and 4G mobile broadband, satellite	Alliance for Affordable Internet shows average broadband speeds of 1Mbps (Alliance for Affordable Internet) Wired: Available 1.5%, Usage 0.5% Wireless: Available 35%, Usage 6% 41.45% of population have access to the internet (Federal Ministry for Communication Technology)	Alliance for Affordable Internet shows average broadband speeds of 4Mbps (Alliance for Affordable Internet) The aim is for 50% Broadband penetration for Ghanaians by 2015 (Alliance for Affordable Internet)	Alliance for Affordable Internet shows average broadband speeds of 0.51 Mbps (Alliance for Affordable Internet)	Coverage of premises, all speeds, is 100% The proportion of adults with broadband in the UK (fixed & mobile) 80% (Q1 2015) (Ofcom). 92% of premises can access more than 10Mps (10Mbit/s appears to be the tipping point beyond which most consumers rate their broadband experience as 'good'.) Those with lower speeds are mostly rural Take-up of any type of broadband is 78% of all premises
Super fast broadband 30Mbps – 300 Mbps	Available through dedicated fibre lines	Vodafone claims to offer ranges from 128k up to 155MB and above. (Vodafone)		Available to 83% of premises with 27% take-up Only available to 37% premises in rural areas Only 68% SME have access
Ultrafast broadband Download of greater than 300 Mbps				2% coverage 0.003% take up





Table 35: Relative cost of 1gb broadband bundle in Ghana, Nigeria and Tanzania

	Average monthly household income (in USD purchasing power parity) (Research ICT Africa, 2013)	Overall NRI Ranking Networked Readiness Index WEF (2011) (Research ICT Africa, 2013) Measures the likelihood of a nation being able to take advantage of ICT to foster economic growth	Government readiness (Research ICT Africa, 2013)	Individuals that own a mobile phone RIA ICT Survey data 2011-12 (Research ICT Africa, 2013)	Cheapest monthly prepaid mobile 1GB broadband bundle per month (in USD) April 2013 (Research ICT Africa, 2013)	Cheapest prepaid product for OECD basket (40 calls per month prepaid (2010)) <u>http://www.researchictafri ca.net/prices/Fair_Mobile</u> <u>PrePaid.php</u>
Ghana	510.66	99 个	116	60%	3.72	Q2 2013: 3.84 Q2 2015: 2.39
Nigeria	404.36	104 ↓	123	66%	50.99	Q2 2013: 6.01 Q2 2015: 3.82
Tanzania	245.01	118	117 ²²	36%	10.17	Q2 2013: 5.44 Q2 2015: 4.00

²² this is ranked much higher than that for business or individual because ICTs are recognised as central to the government's vision of the future



B.3 User Profiles and Diary Entries

B.3.1 Ghana User Profiles and Diary Entries

Table 36 summarises our Ghanaian participants and the data collected from them. This section contains the user profiles generated from 10 of those participants a summary of the daily journal entries.

Table 36: Summary of Ghanaian participants and data collected

Participant	Gender	Category	Sector	Data collected (P, CI, DP, $D^{*)}$
GH1	Μ	Development Consultant	Health	CI, DP, D8
GH2	Μ	National legislature or elected member of local government	Politics	f2f interview (internet not available)
GH3	Μ	Civil/Public Servant	Procurement	CI, DP, D2
GH4	Μ	Civil/Public Servant	Education	P, CI, DP, D4
GH5	Μ	Civil/Public Servant	Education	CI, DP, D8
GH6	Μ	Academic/Researcher	Education	CI, DP, D2
GH7**	Μ	Academic/Researcher	Education	CI, DP, D2
GH8**	Μ	Knowledge broker/intermediary for policy makers	Governance	CI, DP, D7
GH9	Μ	Development worker in civil society	Health	P, CI, DP, D4
GH10	Μ	Development worker in civil society	Health	P, CI, DP, D9
GH11	F	Development consultant	Gender and Equality	CI, DP, D4
GH12	Μ	Knowledge broker/intermediary for policy makers	Economic Growth	P, CI, DP, D8
GH13	F	Civil/Public Servant	Legal	f2f interview (internet not available)
GH14	Μ	National legislature or elected member of local government	Politics	Ρ
14 participants overall	14 participants overall 11 complete f2f sessions 7 complete diary sets (i.e. reflection completed)			

* P = phone interview, CI = contextual inquiry (first half of f2f session), DP = discussion of portals (second half of f2f session), D= Diary, Dx = x number of journal entries returned

** Participant has lived outside Ghana for 6 years out of the last 10, and is not included in main analysis but is useful for comparisons



Knowledge of:	Participant – GH1 Category 6	Information behaviour:
Scidev.net: none Eldis.org: none R4D: none Portal challenges:	GH1 is an Investment/Capacity-Building Specialist. GH1 supervises capacity building activities on a project for USAID. Uses information online a lot but needs to tailor it to clients' needs.	 Opens each source in a new tab, so can easily go back and not waste time pressing 'back' or re-searching Reads headings then first few sentences Uses '+' for searching
 Most internet searches done in Accra because of internet speed Uses phone and hotspots for internet connection outside Accra (last year used modem a lot) 	When looking at reports to determine relevance, the first paragraphs and abstract are key to determine if they are relevant. GH1 talks about 'relevance' a lot. Will copy a sentence from a report if they need to re-find it, maybe to check the reference. GH1 always saves download first before reading in case connection is lost.	 Looks for a page with report Might search within website or report Starting: incredimail search engine, using key words Chaining: from Google to found sources; from found sources to download reports
 Use of information: Shared online: previous project used a group folder, or email link. In current role, only a two-person team Shared offline: no Saved: Yes, GH1 has many folders, and saves for two reasons: 1. poor internet access; 2. to avoid repeat search 	If GH1 wants specific information and knows where to get it from, they will go to the website where they know it will be, e.g. for statistics they go to the Ghana statistical service website, but these sites will also pop up in the general search. If looking for a specific thing they would use the general search (they use the general search engine incredimail) and type in the title. GH1 is more used to the general search than looking for specific articles.	 Browsing: scans titles in Google, scans reports for keywords, scans website for relevant items Differentiating: opens websites in different tabs, downloads reports Monitoring: if comes across information relevant to the sector will save Extracting: uses both general search and website search Processing: see repurposed on LHS
Repurposed: highlights key sentences in source; extracts to Word; populates outline of target document; uses these to (re)write	information online" "downloading takes a bit of time sometimes <laughs>"</laughs>	Assessing validity/use: Relevance – keywords in title/abstract
report Read: read through report, table of contents, searches for keywords	Example use of evidence: Recommendations for UNICEF about using microfinance to provide sanitation. GH1 uses the keywords 'microfinance' and 'WASH' in this task. Uptake: Availability of research evidence has improved. Search skills have improved "It has changed my behaviour and colleagues and how we	 Date West Africa or Ghana specifically Domain knowledge, e.g. a lot of work on latrines is done in Cambodia Reports are better because they describe work that has been done rather than just a project website



interact" Initially you do a lot more on your own,	
reading what others have done. GH1 believes that now	
there is a lot more to read about what others have done	
before starting to do anything. Knowing more and	
reading more means that you can bully colleagues who	
are not reading more. Need to read and read, it has	
changed attitudes". Flow of writing has	
improved because I have read more.	



Partic	ipant – GH1 Category 6	part 2
Scidev.net	Eldis.org	R4D
Steps to find specific article "Big data for	Steps to find specific article "Africa Health	Steps to find specific article:
development: facts and figures":	Strategy 2007-2015":	1. chooses 'browse by theme', and scans list
1. chooses 'browse type' and reads options	1. went to Health and Health Systems	(notices that WASH is in the theme list)
2. chooses 'data visualisations' and scans articles	2. reads the LH menu items	2. chooses economic growth
searches on webpage for 'development'	3. types in search "Health Systems + development	3. enters 'development finance' in the webpage
5. finds article at the bottom of the page	+ Africa" resulting in 4097 documents	search, but no results (hadn't noticed that the
	4. scrolls down scanning titles	search was on projects as well)
Steps to find information:	5. searches again "Africa Health Strategy" and still	4. goes back to simple search on home page and
1. scrolls down the screen	4097 documents "it's more like a	enters 'development finance institutions and
2. returns to central topic menu and looks at each	headache"	infrastructure'
one, reading the titles	6. types "Strengthening of health systems" in	5. error occurred – technical fault
2. goes back to Health, looking for WASH, maybe	search. Still 4097 documents	6. simple search box and checks keywords,
under Health Systems	7. gives up on Eldis, goes back to general search in	7. same error message
3. scans screen and goes to "refine by" and	incredimail and types complete title	8. goes to advanced search and re-enters long
chooses health as well	8. required document is first in the general search	search string
"if I'm frank with you, I will not		9. it's too much for me – advanced search is too
continue with this website" "the	Steps to find information:	much, maybe have it in two stages because all of it
website is not for what I am	1. straight to search box and enters 'microfinance'	is a lot.
	3. reads number of results (494)	10. scans the search results
Parriers to use subject domain	4. looks at the first few titles and decides to refine	"I may be forced to go back to the
(hut CUE's domain was water sonitation))	search "microfinance + WASH"	general search and type in the
(Julidity/user pothing found of interact	5. this results in 616 documents, and they laugh	11 continued looking at the results lists but didn't
Deventered in a nothing found of interest	6. looks at the list to find microfinance and WASH	find the article
Downloading: nothing downloaded	7. looks at page 2 of results, "microfinance	Stops to find information:
Interactive functions: none used	and WASH together should come up	1 scaps the many items on LHS
	IIrst, but doesn' t"	2 moves to Simple Soarch box and enters
	8. goes to page 3 of search results, reading titles,	2. moves to simple sedicit box and effects 'microfinance + WASH'
	services"	3 scans the titles of results and considers whether
	C clicks on this link and roads abstract clicks on	to look at some of them in more detail
	9. CIICKS OIT LITIS TITIK ATTU TEAUS ADSTRACT, CIICKS ON	



 'web' link 10. scans the resultant page. Looking to see if it is key or just interesting 11. on to page 5 of search 12. goes to filter on LHS but no financial services filter, so chooses Health filter. Appears to have lost way – what is this doing? hadn't noticed that the 57 documents in this search are "within HEALTH", and hence that it had filtered Goes back to home page – clears the 'search' box and presses 'return' 	 4. notices 'sanitation' but says that they have to go further "a number of them have microfinance and WASH" 5. chooses one with 'sanitation' - it is a DFID advanced search (111 results) 6. chooses the first three in the list to open in new tab 7. opens one of the tabs to look at it in more detail "it was a bit misleading to me initially. I didn't look hard enough because the one I chose was
Barriers to use: there is a lot of functionality that people don't notice, e.g. search has two tabs: documents and organisations. Search is confusing. Use of tabs is confusing – when choose document a new tab opens but GH1 didn't notice that and was confused Validity/use: As for general searches above Downloading: downloads as above, using tabs Interactive functions: no impact	off" Barriers to use: advanced search is confusing Validity/use: As for general searches above Downloading: downloads as above, using tabs Interactive functions: no impact

Mott MacDonald

Knowledge of:	Participant – GH2 Category 1	Information behaviour:
Scidev.net: not tested Eldis.org: not tested R4D: not tested	Member of parliament for 3 years. Is on the education committee and so is interested in evidence related to education. GH2 was keen to tell us that MPs don't make policy but they sit between the minister who makes policy and Ghana Education Service (GES) who implement policy.	Not tested as the connection in the constituency office did not work. Session was restricted to mostly audio recording and no substantial internet use.
Portal challenges: None observed or mentioned, except that the internet reception was non- existent in his constituency office	"I use the tablet so much to get information from the internet to work with" They draw on primary data collected from schools and research studies, e.g. looking into complementary basic education in order	Assessing validity/use: Source, e.g. World Bank, UN etc.
Use of information: Shared online: none mentioned Shared offline: including it in debate, and by holding up tablet to show people, but not directly sharing – just the main points Saved: yes Repurposed: through debate Read: yes	to place children from hard-to-reach areas into mainstream education. The committee GH2 is on compares the budget to what actually happened. GH2 uses data from GES and EMIS (Education management system (<u>http://moe.gov.gh/emis/index.htm</u>). GH2 also accesses information from UNESCO to compare and make a cogent argument. Information comes from individuals and communities who have checked the data on the ground. This is all about checking the data. "you have to be careful that whatever the content is, it must be a source that is recognised" GH2 uses Google a lot, even to find the websites they know. The	Uptake: Availability of evidence on the internet is "Far better, far better than before" Having evidence easily available is affecting what GH2 does – an ordinary citizen can challenge what is said now, and in parliament it is happening more. On the floor of parliament I have the tablet. "You even see as soon as you quote the source someone puts it in and says no. no." You really have to be ok
	EMIS report tells GH2 what they need to know to debate the situation in parliament, and the core issues in education. Other NGOs produce data and if they are on the net then google will find them. GH2 doesn't visit specific websites, but relies on google to pick out what they need. "If I find evidence from a source I don't know, because of my credibility I normally ignore it, I would not make it an issue on the floor of parliament but draw the attention of minister on the quiet"	about the evidence itself and others will pick it up, read it and authenticate the issues they are presented with. Fellow MPs might hold their ipad or phone and quote from it. "It's forcing the credibility issue on us that we must look for the right information if we really want to debate, otherwise



GH2 is very concerned about their credibility, especially in what	you' d	better	keep	your	mouth
they bring to debates in parliament. Information is difficult to get	shut"				
hold of except on the internet. You can't rely on gossip. There is					
openness of information now but you need to go beyond that					
because people don't yet have the courage to put the real issues on					
the web, so you need to ask others.					



Knowledge of:	Participant - GHA	Category 3	1. Information behaviour:
<pre>Knowledge of: Scidev.net: none Eldis.org: none R4D: none Portal challenges: • Some pages returned errors, but GH4 thinks it is a connection issue • Internet is slow in the afternoon • It takes a long time to download government data. "this is taking longer than it should" Use of information: Shared online: Keeps stuff in Dropbox so can access from any physical location. The division has a Dropbox folder to share. But GH4 doesn't have it available to show us</pre>	Participant – GH4 GH4 is in the Ministry of Education, working at p carrying out monitoring and evaluation. Goes on line to read all the major headlines online, joyfm, peacefm online) to get all that is internationally e.g. at BBC website – for work ar that as a ministry they have to respond to. For discussed on myjoyonline and people didn't u company put a correction on their website. The Ministry has its own website (www.r information about secondary schools on line information and to share with their worker where we have a lot of existing and Example use of evidence: As part of the Secondary Education Improvem know issue with supply of places: "We secondary education was in documentation question arose of the demand for secondary educati admission patterns over the years to be surved government planned would actually be used. own website. The documents for this project are Uptake:	Category 3 policy level, both implementing and from local internet portals (myjoy happening in real time. Also looks of for personal use. Looks for issues r example GH4's project was being inderstand so their public relations moe.gov.gh) and are putting all ne, as a result of requests for rs. "This is our website information already" ment Project (SEIP) they needed to knew that demand for excess of supplyno naturally how do we know con." They needed a firm idea of e that the additional 200 schools The data came from the ministry's e all very long.	 Information behaviour: Uses government-generated data, e.g. enrolment and admission levels in Ghana (EMIS, myjhsresults.net) to investigate the situation When GH4 tried to show us this data through the government website, it had been redesigned and so it could not be found. GH4 then used google to find them "for all the portals for my own work I google." Uses non-govt websites depending on the project Asks a colleague for a website address Starting: types URL address directly or uses google to find known website Chaining: from initial webpage to subpages through links Browsing: on news websites
available to show us	Uptake:	let a let " cince starting ich	Monitoring: saves and prints out lots of
Shared offline: government data also on	in 2005 when connectivity was a problem. I	n 2009, when studying an online	articles and documents
CD	course, used the internet hourly. Online inform	nation is helpful but also brought a	Extracting: none directly
Saved: usually downloads	in touch with you at home and you can be force	d to work. Because of this GH4 has	Processing: see repurposed
information, often prints it	a house rule: "no more browsing in	n the house during the	Assessing validity/use:
out - because it's not easy	_	-	 Keywords and relevance



to find things again or the	weekend, do all your browsing in the office"	• Is it current?
internet doesn't work.	Availability of research evidence on line has improved. "In the past it	 Government's own data
Repurposed: reads education statistics to find evidence to support impression that there is a gap between applicants and available places. Read: if time, the whole document, otherwise the first one to two paragraphs.	<pre>was difficult to prove what you were saying, but now in meetings and conference rooms you can access and link to evidence" It has also affected the way people interact, it keeps them "at bay if you have enough evidence".</pre>	 If there is a trend running through a number of articles then you begin to appreciate it. If you are paying for it you get the feeling that it's a well-researched document. Other people believe information found on the net, even if detrimental, they assume it's correct. "if something is free, it's a good thing, but sometimes you doubt the information if it's free"



Ра	rticipant – GH4 Category 3	part 2
Scidev.net	Eldis.org	R4D
Steps to find specific article "How to communicate in an interdisciplinary team":	Steps to find specific article "Three tools to unlock finance for land-use mitigation and adaptation":	Steps to find specific article "Development Finance Institutions and Infrastructure: A
 typed the full title into the search box reads the number of articles returned 	 typed full title into search box it was top of the first page 	additionality":
(seven)	3. chooses the first one to read	1. had trouble finding home page
3. scrolled down them looking for the title	4. reads first paragraph "very nice, you	2. clicked on DFID logo and went to DFID home
4. clicked on the title (3 ^{ra} one down)	really want to spend more time	page
5. was happy could find it so easily	feading. I like it this way"	3. Clicked off browse by theme
Steps to find information:	Steps to find information:	4. Tead sub-categories looking for anything to do with development institutions finance and
1. scrolled down the home page and back	1. chooses "Evidence for policy and practice" from LHS menu under Resource Guides.	infrastructure
2. hovered mouse over 'Browse type' and	2. reads first two paragraphs of overview in the middle	3. chose miscellaneous infrastructure category
then over five of the other menu options	"this will set the tone for the whole story"	4. scrolled down page but draft till anything
(not 'Communication'), looking for	3. commented would like to spend a whole day reading	6 looking for anything to do with global finance
categorised. It's more obvious	from this page "this is the core of my	institutions, infrastructure
to see than R4D"	work to make sure my work is	7. chooses 'Public financial management
3. researcher points out this is a scientific	informed by evidence"	governance and conflict' as had some of the key
site	4. chooses a story titled "Education in Urban contexts"	words "so many links"
4. thought the banner 'Trading in death'	5. likes the paragraphs describing the document as it	8. scrolled down the page, reading headings
looked interesting so clicked through and	bullet points linking research evidence "it's well	9. went to next page, and then next page, and
article if there is time, but if not the first 1 –	organised and I like that it sets to	then next page (4 ^{cr}), looking at titles
2 paragraphs to get an idea of what it is	tone right at the beginning it's a	10. goes to front page
about	teaser"	11. chooses advanced search and enters some
5. decides to read it later	6. downloads PDF, this happened really quickly	fill out these (sighs and

Mott MacDonald

Barriers to use: none observed	7. saves PDF	laughs)"
Validity/use: interest only as GH4 didn't find	Barriers to use: none observed	12. looks down search results "the numbers
anything on education	Validity/use: relevance to the work	are slowing me there are 3000"
Downloading: no problems	Downloading: fast download	13. chooses the refine by documents on RHS
Interactive functions: not used	Interactive functions:	14. and tried using that but didn't find the article
		Steps to find information:
		1. enters 'www' before R4D URL and researcher points out that it is not needed
		2. reads the introduction on the front page
		3. reads the options and chooses 'browse by country' to see if there is anything on Ghana
		4. chooses 'all projects'
		5. looks for projects DFID have implemented in Ghana "it looks organised if you compare it with other websites, the front page can scare you away" "I don't see anything on Ghana yet"
		6. Searches again, narrowing to West Africa, but internet connection is " bad "
		Barriers to use: commented "Once you get used to a particular site you know how things are arranged it becomes a bit easy. This is my first time here If I'd used it a number of times I would know" Validity/use: keywords
		Downloading: internet connection is slow
		Interactive functions: not used



Knowledge of:	Participant – GH5	Category 3	2. Information behaviour:	
Scidev.net: none Eldis.org: none B4D: none	GH5 works in the non-formal education on complementary basic education (CBE	n sector and has been focusing).	 GH5 uses the phone to connect to hotspot Tries to save information directly from 	
R4D: none Portal challenges: • If it needs to be paid for then needs to go to university to access • Variable internet connection takes a long time to do anything and portals time out "if you really need it then you persist" Use of information:	 GH5 demonstrates ERIC (Education Resources Information Center), which was learned about from GH5's lecturer. GH5 uses JSTOR and ERIC because they publish in social sciences and education. GH5 trusts PDF documents "If I find something that is not PDF, then someone else might have tampered with it" Switches to smartphone hotspot part way through the session as internet connection via the dongle fails. Linking to ERIC is very slow on the laptop and on his phone. ERIC is rendered differently on laptop and on the smartphone. Seems unsure about the navigation of ERIC on the target. 		 the website, else copies the text ar pastes into Word GH5 starts by getting an internation context and then narrows down Ghana GH5 goes to the University to accer journals or portals that have to b paid for Starting: uses Google or a gener search engine to start, will go to portal 	
Shared offline: not directly Saved: saves documents and information so as not to be on	GH5 appears to not be confident in using articles in a portal "I am not venterminologies".	g the internet and searching for ery good with the IT	JSTOR Chaining: on ERIC, browses by category and links through to educational	
Internet too long as this costs money. If this can't be saved directly then cut and paste into Word. Repurposed : read and summarise the content relevant to GH5's purpose, relate the work from other countries Read: title, abstract or any summaries. Look at any statistics and	When accessing through ERIC or JSTOR, usually free, and then goes to the univ required. If they can reach the PDF they their machine. The general search engines make it r evidence. On the portals (such as R4E more focused which makes it easier.	GH5 reads the abstract which is versity to get the full article if would download it and save to nore difficult to find research D), material is categorised and	brocess: social perspectives Browsing: no evidence of browsing Differentiating: relevance, source Monitoring: information is sought for a specific purpose rather than keeping abreast of an area Extracting: cuts and pastes from	
project outputs. Is influenced by the title	Example use of evidence: A report from a project (Complemental provide literacy to children 8-12 years	ry basic education) that was to not in formal education. DFID	website if interesting Processing: as for repurposed Assessing validity/use: Credibility: published journal articles	



farming or other occupations that take them away from form education.	al no news items, JSTOR, source is more important than the form
Uptake: Communication is more prompt. "I should be able respond wherever I am because I can download to my phone". Access to research evidence is easier because t portals categorise materials and have pop-ups and menus that dir you to a topic, as opposed to a general search engine.	 Author's education and experience (profile) Relevance: to topic, other parts of Ghana, or other African countries, methods that others have used that Ghana can use



Partic	part 2	
Scidev.net	Eldis.org	R4D
Steps to find specific article "Big data for development: Facts and figures": "here the search is hidden" 1. types 'big data for development : facts and figures' in search box 2. 16 results 3. scrolls down first page of results reading the titles	Steps to find specific article "Three tools to unlock finance for land-use mitigation and adaptation": 1. types 'three tools to unlock finance for land-use mitigation and adaptation' into search box on LHS. 2. opens first item in the results list to confirm that it is the right one. "it's very fast and the portal is friendly because I was able to scan by the guide headings I could move to a	Steps to find specific article "Using climate information to achieve long-term development objectives for African ports": 1. types 'using climate information to achieve long term development objectives for African ports' into simple search box 2. the typed title is in each item on the first page 3. looks for author and date but can't see it in search regult information
 4. Chooses fourth article infist Steps to find information: 1. reads sub-menus of each main menu item 2. 'children' under the 'Health' menu may be relevant but moves on to others looking for education 	<pre>specific topic" Steps to find information: Tries to open on laptop and smartphone to see which is faster - the smartphone loads more quickly but uses the laptop</pre>	4. chooses the first item "comparing the three, Scidev was easier to see in terms of author and when I clicked it was visible. On R4D it was hidden"
 3. sees 'education' under 'Communication' but it's not children's education 4. decides to look at 'education' and see if it relates to children "education is under 'communication' - why? I feel it is hidden. Maybe I don't understand" 5. scrolls down articles looking at titles, and observes that this is about higher education, so not relevant 	 scrolls to bottom of the page reads resource guide list then goes to other topics – chooses education reads the LHS menu under education, and is interested in 'working children and education' chooses this topic as it is relevant to CBE focuses on the titles of articles in 'latest additions' scrolls back to top of page again 	 Steps to find information: 1. reads items in LHS menu 2. types 'complementary basic education' in simple search box 3. points to the first two articles as being relevant 4. chooses the first one as it is about implementation, and second one is about technology (?) 5. reads detailed summary "it is good to use"
 6. goes back to 'children' under 'Health' but decides that it will not talk about education 7. concludes that this website will not offer the kind of information GH5 is looking for Barriers to use: not appropriate areas 	 7. reads the short abstract that appears in the 'latest additions' list, starting with first article 8. chooses an article on child labour but it won't download the first three attempts 9. reads summary and confirms that this would not be directly relevant because it is not linking to 	Barriers to use: presentation of search results is confusing, especially for the specific article search All of the results except the first are advanced searches in themselves which user doesn't realise Validity/use: topic relevance



Validity/use: relevance to CBE	education	Downloading: opening items automatically in a
Downloading: does not download	Barriers to use: only internet speeds and	separate tab confuses user
Interactive functions: not used	downloads	Interactive functions: not used
	Validity/use: relevance	
	Downloading: downloads as above, using tabs	
	Interactive functions: not used	



Knowledge of:	Participant – GH6	Category 5	Information behaviour:
 Knowledge of: Scidev.net: only newsletter? Eldis.org: none R4D: none Portal challenges: High cost of internet Use of information: Shared online: Shares websites with students e.g. NCBI database, plant genome database and rice database. Shared offline: no Saved: Yes, has many folders; saves for two reasons: limited internet access; It enables detailed reading. Repurposed: GH6 rewrites all the important information they have gathered online and then references them. Read: Reads through the abstract and the important information the access in the important information the access in the important information the abstract and the abstract and the abstract and the access in the access in the abstract and the access in the access in the abstract and the a	Participant – GH6 GH6 is a Lecturer at the University of coordinator of research programmes of Fr GH6 is currently writing a research enhancement. GH6 uses general search er for specific articles for the proposal— available. GH6 types the full title of the res search engine to look for specific articles find the specific article. GH6 also types a engine when looking for specific articles article, GH6 places more emphasis on the source of the article e.g. FAOSTATS Agriculture, Ghana. GH6 reads the abstra document, and if relevant to their work options that allow them to download sp media e.g. Facebook. GH6 follows the al article titled "An overview of post-harvo production in Africa" through Facebook. GH6 then saves the document in a fold document in detail and then copies the their work.	Category 5 of Ghana. GH6 is also the ancophone West Africa. In proposal about Genetic ngines [mainly Google] to look mainly because it is openly search proposal into a general s and alters the keywords to question into general search e. When selecting a specific e closely related titles and the and Ministry of Food and ct and findings of the specific , downloads it. Gh6 opts for becific articles through social bove criteria to download an est challenges facing tomato der. GH6 later on reads the relevant sections to support	 Information behaviour: types full sentence into a general search engine. scrolls up and down. reads the titles on the first page of the search results. opens specific articles in different tabs. saves relevant specific article in a folder and reads at a convenient time. Starting: Enters an important sentence in general search engine. Chaining: pays attention to how related the title is and then reads abstract and findings. Then copies key references into Google search engine to look for more articles online. Browsing: GH6 scrolls up and down the titles and sources in general search engine to find the most relevant items. Differentiating: Downloads relevant reports. GH6 discards those that are
entire document if the document is relevant.	Example use of information: Research proposal on Genetic enhanceme Output: None	nt.	portal on which they were found. GH6 considers the credibility of the author, how recent the publication is, and the relevance of the title to the work.
	Uptake: It has fostered growth in knowledge thro online. Indicates that "I am able to databaseI was surprised to	ough access to data and tools access the Genomic find that such type	Monitoring: If comes across information relevant to work, will save. Extracting: downloads quantitative data



of database exist". Very confident of getting information for	from FAOSTATS and Ministry of
any type of job required to be done.	Agriculture.
	Processing: see repurposed on LHS.
	Assessing validity/use:
	• Relevance – Author and source of the
	article. E.g. FAOSTAT is the most
	reliable for data on Tomato
	production in Ghana.
	• How closely related the title, abstract
	and findings are to their work.



Participant–GH6 Category 5 part 2			
Scidev.net	Eldis.org	R4D	
Steps to find specific article "Big data for	Steps to find specific article "Africa Health	Steps to find specific article:	
development: facts and figures":	Strategy 2007-2015":	1. goes to advanced search and uses 8 minutes to	
1. types the full title of the article topic (as	1. types the whole title into the search box and	enter the title of the article in the advanced search	
indicated above) into the search box.	gets 28853 search results.	page.	
2. scrolls down the first page of the search	2. gets discouraged with the search results—and	2. scrolls down and then finds the document at the	
results.	decides to narrow the search results by clicking	bottom of the page.	
3. finds article in the middle of the first page of	a tab called Health.	3. downloads the article and saves it.	
the search results and amazed to see an	3. unable to find the article.	4. then bookmarks the portal.	
inserted video playing in the article.	4. gives up.	Steps to find information:	
4. pauses a while to watch the video on "big		1. scrolls up and down home page.	
data".	Steps to find information:	2. clicks on "country" but does not find	
Steps to find information:	1 scrolls up and down the first page of the portal.	anything relevant.	
1. scrolls up and down the home page.	2 types keywords "postharvest tomatoes" in the	3. downloads the R4D user guide.	
2. clicks on "Global" then "sub-Saharan Africa".	search box and finds 83 search results—is	4. reads the R4D user guide cursorily, but finds	
3. Scrolls down to look for topics related to	indifferent with the search results "Its a	it time consuming.	
"Postharvest losses in tomatoes", but finds	lot of work going through all	5. did not find anything.	
none.	them [83 search results] but at the	6. types "funding for projects in Ghana" in the	
4. Types "Postharvest losses in tomatoes" into	same time I am happy that there	search box and gets 4390 search results.	
search box but gets zero results. Becomes	tomatoes"	Gives up.	
discouraged. Indicates that "this is not a good	3 randomly clicks one of the titles on the first	7. clicks on advanced search to find	
	page of the search results and downloads the	information on tomato.	
5. reduces the search by typing only "Iomatoes".	document.	8. becomes discouraged with the detailed	
6. becomes encouraged because finds	4 looks for the abstract of the document but	information required on the advance search.	
information that has been published on the	unable to find it.	9. results are not relevant to work.	
university's website with the title New	5 scans through the document and saves it for	10. finds it difficult to go back to the home page.	
security"	future use.		
7 Bookmarks "www.scidev.net"	Barriers to use: The several search results makes it	Barriers to use:	
8 Tries to go back to the homenage but finds it	difficult to identify the exact information on the	1. difficulties in identifying where the home tab	



confusing. Indicates that "this site	page.	for R4D was.
[website] is confusing".	Validity/use: For general search. Same as that of	2. gets discouraged to continue with the
Barriers to use: finds it difficult to navigate to the	Scidev.net	advanced search page because of the detailed
home page. Asks "where is the home	Interactive functions: no impact	requirements.
tab?I want to go to the home		Validity/use: For general search. Same as
page"		SciDev.net
Validity/use: finds a document that has initially		Downloading: downloads specific article.
been published on the university's website. GH6		Interactive functions: no impact.
considers the author. The date of the publication		
(ideally, it must be a recent publication) and the		
relevance of the title to the work.		
Downloading: nothing downloaded.		
Interactive functions: none used.		


Knowledge of:	Participant–GH9	Category 4	Information behaviour:
Scidev.net: None	GH9 works at a sexual and reproductive health c	harity in Ghana, GH9 is	• Searches for information on various health
Eldis.org: None	currently undertaking a project in collaborati	on with the national	related portals. This includes WHO, IPPF, and GSS.
R4D: None	population council.		Conject relevant articles into word. Profess
Portal challenges:	In addition to Google search engine, GH9	uses both local and	to redraft in own words.
Eldis was very slow. Difficult to navigate to the home page on R4D.	International Portals to search for evidence of International Portals includes the World Healt and International Planned Parenthood Federa	h Organisation (WHO) tion (IPPF). The local	• Saves relevant article. Seldom prints since it may be expensive.
Use of information:	(GHS).	d Ghana Health Service	 Becomes uncomfortable when portals are not responding.
Shared online: Shares information with colleagues at work and in the house.	Uses the GHS and GSS portal to look for Ghar related online information. For instance, uses	na specific and health both portals for both ternational portals to	Starting: Starts online search with general search in Google.
Shared offline: No	search for general international information	on health issues, for	Chaining: No evidence found.
Saved: Saves articles after reading them.	example GH9 tries to look for average HIV/AIDS WHO portal.	prevalence rate on the	Browsing: Browses both local and international portals as well as Google search
Repurposed: Copies online article and rewrites them in own words.	Opens every online article on a different tab. publications on these portals. GH9 prefers to information onto Microsoft word and rewrites it	Prefers to search for copy relevant online in own words.	engine. Differentiating: Ensures that sections of articles that are read are highlighted and marked for future reference. Opens every
Read: First reads abstract/summary and if relevant, reads the entire	search on health related issues. In doing so, GHS words into Google search engine. For instance	 Does a lot of general prefers to type in key GH9 prefers to type 	online article on a new tab. Monitoring: Constantly checks health related
article.	keywords of a specific article into Google search	n engine when looking	portals for new information on health.
	for general information on health. GH9 demonstr key words "adolescent reproductive health". Get	ates this by typing two s 7.4 million results.	Extracting: Copies new online information identified from recognised health related
	Reads the brief summaries below each title or	the first page of the	portals.
	search results to find the most relevant ones. Clip Saves the article. Prefers to read through thorous calient points in the article. Often was sticked	cks on the second title. ughly and highlight the	Processing: Rewrites all online evidence that is copied.



Vo	lume	Two:	App	pendices

	significant parts.	Assessing validity/use:
	Also likes typing names of authors who are authorities in their field. For instance, GH9 demonstrates this by typing the name of a Ghanaian medical professor who has done a lot of work on adolescent health.	 Considers the author. Sometimes types the name of an academic authority in particular health related field to access valit information. Also considers the date and source of articles
	Example use of evidence:	
	Republic of Ghana adolescent reproductive health policy.	• Also considers the date and source of article.
	Uptake: Able to get information faster and more easily.	



Participant–GH9 Category 4 part 2			
Scidev.net	Eldis.org	R4D	
Steps to find specific article:	Steps to find specific article:	Steps to find specific article:	
1. Types the specific article into the search box of the portal.	1. Tries to look for specific article. Uses keywords in the title of the specific article as a guide searching.	1. Navigates with cursor to the home page of the portal. Clicks on themes in search for specific article.	
as it should. Waits a while. Portal uploads.	2. Decides to look for the topic "finance" and	2. Tries to look for specific article with the	
3. Types the keywords of the specific article into the search box of the portal. Scrolls down slowly. Finds the title of the specific article on the first page of the portal.	"land use mitigation" since they are the keywords in the specific article.3. Finds 5762 results but the specific article was not found.	keywords in the title. Was not successful. 3. Clicks on advance search and realises it requires a lot of details. Becomes discouraged to continue with the advance search.	
Steps to find information:	4. Then types the keywords of the article into the	4. Types the keywords of title of the specific	
1. Types the URL of the portal into the find bar on the internet.	results but still the specific article was not found.	5. GH9 finds the specific article on the first	
2. Takes a careful look at the portal. Then clicks on the topic "health" on the menu bar. Further clicks on	of publication and then finds the article on the	author and reads the summary below the title.	
the sub-topic "HIV/AIDS" on the menu bar.	first page of the search result. Clicks on the specific article	Steps to find information:	
3. Indicates that the portal is useful but the content of the articles on the portal are not detailed enough.	Steps to find information:	1. Types the URL of the portal into the find bar of a laptop.	
4. Tries to go back to the home page. Finds it difficult to locate the home tab. Finds it later on. Clicks on it to go back to the home page.	1. Types the URL of Eldis into the find bar of the portal but the portal fails to upload. Decides to try it for a second time.	 Looks carefully at the portal. Clicks on "Theme". Indicates that the portal is well ordered. 	
Barriers to use: Portal responds very slowly. Also finds it difficult to navigate to the main portal.	2. Eventually gets the portal uploaded. Scrolls up and down. Browses through the resource guide section of the portal	3. GH9 indicates that "the topics have been put into thematic areas	
Validity/use: Because portal is a DFID funded portal. Downloading: No significant evidence.	3. Scrolls further down to "other topics" heading and then clicks on "children and young people".	4. Was impressed with how the various topics have been broken down into various sub-	



Interactive functions: No significant evidence.	 Tries to look for something around family planning and abortion. Clicks on the second title on the first page of the portal. 4. Takes careful look at the abstract, year of publication, name of publisher and author, since that is what attracts GH9 to make further searches. 5. Finds an article related to family planning. Downloads and saves it. Barriers to use: Portal did not upload properly. Had to try for the second time. Validity/use: Since it is a DFID funded portal. Downloading: Downloads a general article. Interactive functions: No significant impact. 	 topics. Indicates that "this has been broken down into reproductive health, strengthening health systems, HIV/AIDS,it is good" 5. Clicks on the topic "reproductive health". GH9 subsequently clicks on the third title of the first page of the search results. 6. Likes the presentation of the article on the portal. The portal shows the name of the author, date and the fact that DFID is funding the portals makes it credible. 7. Tries to click on the second page to look for more relevant article. Finds no relevant article. 8. Decides to browse the portal by country. 9. Clicks on the heading, "country/region". Finds no relevant information. Was expecting to get health related online articles that are specific to Ghana. 10. Goes back to the home page. Barriers to use: No clear barriers realised. Validity/use: see SciDev.net on the LHS. Downloading: No evidence. Interactive functions: no impact.
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Knowledge of:	Participant–GH 10 Category 4	Information behaviour:
Scidev.net: Yes, since 2010. Subscribes to their	GH 10 is a development civil society worker, working on projects related to sexual experiences of young people, used to educate groups, e.g. the police, develop	• types the URL for the Ghana Statistical Service Portal.
newsletter. Found it through Google. Often	policy on things like rape. Relies on public information from highly recognised institutions in Ghana. For	• Opens each of the articles on a different tab.
Eldis.org: None.	instance, GH10 uses various local internet portals like Ghana Open data platform and Ghana Statistical Services (GSS) database to look for data on the Ghanaian	• Finds and save the most relevant article.
R4D: Familiarity, based on newsletter.	youth. Uses the Ghana Statistical Service portal a lot because it is easier to get data and policy documents. Finds the GSS portal reliable because it belongs to	 Shares articles and URL of relevant article.
Portal challenges:	GH10 types the URL for the Ghana Statistical Service Portal. Scrolls down and then	Starting: Starts online search with Google.
Portals are not user	Decides to look for the Ghana Demographic and Health Survey report. Clicks on	Chaining: No evidence of chaining
friendly.	one of the new tabs. Finds the Ghana Demographic and health survey report. Downloads the report on the portal. Finds the keyword contraceptive by typing it	Browsing: Searches for information on GSS portal. Opens relevant articles on a
Use of information:	into a search box in PDF and then uses the enter key on the keyboard of the	different tab.
Shared online: Yes	GH10 writes down various facts and figures related to the keyword adolescent in	Differentiating: Saves relevant articles and discards unwanted ones.
Shared offline: No	the report as personal notes.	Monitoring: Checks the GSS portal
Saved: Saves only relevant articles.	GH10 downloads data and uses the data for power point preparation and report writing.	regularly to ascertain whether there is any new information related to sexual
Repurposed: uses online	Shares online information on social network platforms on Facebook called	experience of young people.
power point presentations.	"noyawa". Also shares online information in the form of videos and pictures. GH10 shares URL on the platform as well. This encourages GH10 to look for more online	Extracting: Download data from the GSS portal.
Read: Reads full articles	research information online.	Processing: Prepares power point
omme.	Example GH10 accesses information on Ghana Demographic and Health survey report from the Ghana Statistical Service website.	presentation with new downloaded article.
	Also relies on internationally recognised portals like World Health Organisation,	Assessing validity/use:



International Labour Organisation, and Knowledge for health.	• Emphasises on current information.
In determining the validity of information on the portal, GH10 emphasises how current the information is. Also considers how data were organised for the preparation of the document. The source of the online information is also important.	 Considers articles from international sources.
Example use of evidence: Digital Story telling Project (which includes elements of Sexual Violence) is based on real life stories of some young people in Ghana.	
https://www.YouTube.com/watch?v=TAbGzMLt_iY	
Uptake:	
It has increased knowledge acquisition. Information access is now very cheap and easier to access.	



Participant–GH10 Category 4 part 2			
Scidev.net	Eldis.org	R4D	
Steps to find specific article:	Steps to find specific article:	Steps to find specific article:	
1. Types the name of the author of the specific article in the search box of SciDev.net.	1. In search for the specific article GH10 types the name of the author into the search box of the portal. Finds no results. Search results are rather	 Uses the advance search topic on the home page of the portal in the first tab to search for specific article. Types keywords title of specific article into advance 	
2. Finds the articles on the first page of the portal.	related to "Climate Change". 2. Clicks on the topic "agriculture and food" to see	search but realises that it requires more information.	
3. Clicks on it and reads the title.	if the title of the specific article can be found is available. Out of 307 search results. GH10 did	box, GH10 selects types and puts the full title in	
Steps to find information: 1. Types the phrase "reproductive health"	not find the specific article.	quotation. Unly two articles were realised on the search results.	
 into the search box of the <u>www.scidev.net</u>. 2. Finds the search box very easy to use compared to going through the various 	3. Decides to open the same portal on two different tabs. Types keywords of the specific article in the search box of the Eldis portal on	4. Realises that the two search results are closely related articles. Identifies the article at the top of the	
	the first tab.	5.Reads the title and the summary.	
topics on the portal. 3. Scrolls down and clicks on the fifth title on	climate change. This is because the specific article is related to climate change.	6.Clicks on the actual document which is attached as PDF.	
the first page of the search results.	5 Types the keywords of the article into the search	Steps to find information:	
Barriers to use: None observed Validity/use: DFID funded portals are	box of the portal. Finds the article on the portal on the second tab.	 Clicks on the topic country or Region and opens it on a new tab. 	
always reliable because DFID will not	Steps to find information:	2. Does this to keep the home page opened.	
compromise its credibility. Downloading: Downloads only relevant article.	1. Types the URL of Eldis into the search box of Google search box.	3.Selects Ghana and finds the various articles on the search result.	
Interactive functions: No impact	2. Pays attention to the latest documents on the portal.	4. Looks for health related topics but does not find an article that is relevant for the current work GH10 is	
	3.GH10 scrolls down and opens each relevant article on a new tab. Clicks on the last topic on the bottom left of the portal. Finds articles on	doing. 5.Does not find the portal user friendly—mainly because, of the search results presents a mixture of	



"ICT for development" and "Mental Health".	"documents" and "projects".
4. Download the PDF attachment of the document. Scrolls down the downloaded article. Reads the summary under the title "Education technology topic guide" on the portal.	6. Goes to the home page and then clicks on themes. Finds the presentation on the portal orderly but indicates that there are so many topic
Barriers to use: The portal is slow Validity/use: See SciDev.Net on the LHS. Downloading: Downloads article in PDF format Interactive functions: No clear evidence	 Barriers to use: Not user friendly mainly because of the article Validity/use: Did not specify Downloading: downloads specific article Interactive functions: No impact



Knowledge of:	Participant – GH11 Category 6	Information behaviour:
Scidev.net: none Eldis.org: none R4D: none	GH11 carries out research, monitoring and evaluation with civil society organisations and international development partners, and also	 GH11 mainly uses Google, even using a general search engine (bing) to find the Google website will go to a specific website if GH11 knows they have a lat of good meterial and they have also a specific website.
Portal challenges: • None observed Use of information: Shared online: central repository and email Shared offline: doesn't print unless has to (e.g. travelling at airport) Saved: may save document for use later on Repurposed: reads, takes paper-based notes on key points, maybe copy a sentence electronically to collate in a word document and then re-phrase and re-organise Read: none mentioned Portal challenges: Portal challenges: Portal challenges: Portal challenges: Portal challenges: Portal challenges: Postory and email Postory and email	designs capacity building programmes, promoting good governance and good advocacy. GH11 has worked on DFID-funded programmes for over 10 years, in different programmes and for different organisations. GH11's reason for looking for information or research evidence is driven by client's requirements. GH11 goes to specific organisational sites when they know that this organisation has done relevant work. However "usually I would google for what I want". GH11 also uses books and conference materials as sources, and is careful to cite the work properly. GH11 is surprised that they do not know any of the portals "Its' interesting, I've worked on DFID's programmes most of my working life". When going via google GH11 doesn't pay attention to the end source. GH11 tends to think it's their fault when they can't find things in the portals. GH11 returns to the point many times that they are amazed GH11 has never heard of these DFID-funded portals before nor come across them "I've never heard of these anywhere. I feel shameful especially if you are working on a DFID-related project, you want to be efficient"	 have a lot of good material and they have done relevant work, e.g. ODI, and gets to their website through google personal domain knowledge of, e.g. ODI and ITAD, informs GH11's choice Starting: uses google or a general search engine Chaining: chooses relevant links from general search or in particular pages Browsing: no evidence of browsing Differentiating: content is key, fit to client's requirements Monitoring: information is sought for a specific purpose rather than just to keep abreast Extracting: cuts and pastes elements of a website or article if relevant Processing: as for repurposed Assessing validity/use: Pays more attention to the document and its 'fit' (relevance, content) than to the source (website, author) A document that is comparable with what GH11 is trying to develop, e.g. a similar strategy document for a similar organisation Fits the requirements of clients to the evidence and other strategies being found Country context – choosing a strategy from Europe cannot be imposed on Ghana



Example use of evidence:	• Titles plus focus/relevance, e.g. legal definitions
A gender strategy for PLAN (international NGO focusing on child rights), to use within their organisation	
Uptake:	
Agrees that there is a lot of information available but that care is needed to decide where to choose things from. Authenticity is very important, and there are some sites you wouldn't go to. The easy availability of research evidence has also influenced interactions. "you can refer people to it and it's easy to access when having a conversation you can easily refer to it "	
In my advocacy training we encourage trainees to look out for data - facts and figures so the arguments are backed up with facts and figures you can compare with other countries, e.g. how a particular policy is faring in one country compared to others	



Partic	cipant – GH11 Category 6	part 2
Scidev.net	Eldis.org	R4D
Steps to find specific article:	Steps to find specific article "Strengthening of	Steps to find specific article "Using climate
Not attempted as SciDev.Net focuses on scientific	health systems for equity and development in	information to achieve long-term development
topics	Africa":	objectives for African ports":
Steps to find information:	1. can't find home page	1. thinks about what to do for a minute
Barriers to use:	2. enters 'health systems'	2. types 'climate information' into simple search
Validity/use:	3. reads titles on first page	box
Downloading:	4. goes to search box on results page and adds 'for	3. reads first page of results and chooses third in
Interactive functions:	equity and development'	the list
	5. reads the titles on first page of results	4. reads that it is 'in Rwanda, not African ports' and
	6. returns to search box on results page and	downloads linked PDF
	changes search to 'Africa health strategy 2007-	5. returns to search results page
	2015'	6. returns to tab with PDF download and notices
	7. required article is first in the list, GH11 chooses	that it is 'in Rwanda'
	it to check.	7. returns to search results page "these are
	Steps to find information:	not complete sentences so" it is hard
	1. scrolls half way down front page	to see
	2. chooses Evidence for policy and practice on LHS	8. chooses the eighth search result "some show
	3. chooses Governance on LHS rapidly. Governance	the author so it's easier"
	is GH11's key interest	Steps to find information:
	4. reads the first paragraph on Governance	1. scrolls down the front page
	5. scrolls to the bottom of the article list, and back	2. chooses 'Browse by country'
	to top again	3. enters Ghana in the 'Country' box and Western
	6. looks at sub-topics on LHS "they've broken	Africa in the 'Region' box
	it down and that's interesting"	4. checks the documents and projects options and
	7. reads the titles of the article list looking for	chooses Browse button
	anything on Ghana	5. scrolls down the first page of results "It's
	8. notices country profile and chooses More	interesting I haven't found a
	countries "there's no west Africa	need to " come to this website



here"	6. returns to browse by country options, chooses
9. chooses Ghana in the Africa south of Sahara	'current projects' and 'projects', i.e. not documents
category. "I was expecting to see West	7. reads the titles "I haven't found the
Africa"	kinds of projects I know"
10. reads the titles of articles page 1, page 2.	8. decides to search for a specific project they
"there's so much information in	know, but can't find how to go back to that search,
here"	and can't easily just change the browsing
	parameters
Barriers to use: search is confusing to use	9. chooses completed projects in Ghana Western
Validity/use: relevance	Africa
Downloading: no problems	10. when search results are displayed, looks down
Interactive functions: not used	the refine options on RHS because wants to be
	able to put in the name of the project
	11. goes though the first two pages of the search
	results but can't find what looking for. Does not
	want to go through 724 records
	12. returns to home page and enters STAR-GHANA
	in simple search
	13. scrolls down results pages, but can't see STAR-
	Ghana
	Barriers to use: can't find projects they are or have
	been engaged in
	Validity/use: focuses on projects
	Downloading: not used
	Interactive functions: not used
	<pre>here" 9. chooses Ghana in the Africa south of Sahara category. "I was expecting to see West Africa" 10. reads the titles of articles page 1, page 2. "there's so much information in here" Barriers to use: search is confusing to use Validity/use: relevance Downloading: no problems Interactive functions: not used</pre>



Knowledge of:	Participant–GH12	Category 7	Information behaviour:	
Scidev.net: None	GH12 is a research officer at Parliament of Ghana. W	Vorks with different	Starting:	
Eldis.org: None	parliamentary Select Committees in Ghana and is cu	urrently working on	• Starts by typing the full sentence of	
R4D: None	an International Trade Bill.		specific article in Google search	
Portal challenges:	In addition to the use of paper books, GH12 also	looks for evidence	engine.	
• Unreliable internet access.	online for the preparation of the bills. GH12 indica do is to getinformation on	tes that "what I International	 scrolls down. reads the titles on the first page of the 	
• Difficulty in accessing top quality	[Trade] Commission from in other	jurisdictions	search results.	
document on the internet in the office in Parliament.	online". GH12 uses Google search engine to look for evide	nce online—mainly	 opens specific articles in different tabs. 	
Use of information:	because it is easier and accessible. Types keywo	ords "International	 saves relevant specific article in a 	
Shared online: Via email to colleagues	Trade Commission Functions" into Google search bo	DX.	folder and reads at a convenient time.	
at work or WhatsApp group.	Scrolls down and clicks on the third title of the search	h result, but did not	Chaining: GH12 copies key references in	
Shared offline: No	get any relevant online research evidence. Clicks or	one relevant document into Google		
Saved: Saves only relevant documents	of the search results but finds no relevant online ev	ridence. GH12 clicks	search engine to find more relevant	
in a folder.	to scroll down further.	results and decides	Browsing: GH12 scrolls through titles on	
Repurposed: GH12 makes own paper	Opens the last but one search result with the title	e "A review of the	the first page of the search results.	
notes on documents taken from the	International Trade Administration Commission's	Tariff Investigation	Differentiating: GH12 separates	
internet.	Role and Capacity" on a different tab. Clicks the new	w tab and realises it	relevant search results from the	
Read: Yes, first reads title and if	is a report. Reads the title again and cursorily loo	oks at the table of	irrelevant ones by opening the relevant	
conclusion before deciding whether	content to ascertain whether there are/or is section that is relevant for the preparation of the GITC hill.	(s) of the document	ones on a new tab. Saves only relevant	
to read the whole document.	sections. Saves it in a folder for future thorough read	ling.	article.	
	Ascertains the validity of an article by determining	whether the article	Monitoring: None.	
	has been published in a peer reviewed journal.	For instance, NGR	Extracting: Download and saves	
	indicates that "I go to the University	to look for		
	peer reviewed journals". Also cor	nsiders articles that	Processing: See repurpose on the LHS.	
	have been recommended by experts to Parliament	ot Ghana. Example	Assessing validity/use:	



parliamentary select committees are expertsand they recommend papers for consideration". Relies on some of these articles that have been recommended to parliament for the preparation of the bill. Shares online research evidence with colleagues through email or WhatsApp. Thirdly, relies on some internationally recognised country specific portals like United States of America International Trade Commission website (https://www.usitc.gov/). Example use of information: GH12 was working on a Parliamentary bill.	 Relies more on journal articles and articles. Articles recommended by experts to the Parliament of Ghana. Also relies on country specific portals that focus on International Trade Commission Bill. For instance, United States of America International Trade Commission website (https://www.usitc.gov/)
Output: Has completed a first draft. Uptake:	(https://www.usitc.gov/).
Research evidence on the internet has made research easier, but access to peer reviewed journals remains a challenge. For instance, GH12 indicates that "for this office I don't get much journal articles because we don't subscribe to themI am able to get access to them when I go to the University [University of Ghana]". Access to internet can also be a major challenge. For instance, "I don't get internet in my office regularly, and even when it is available, it is not always fast".	



Particip	ant–GH12 Category	7 part 2
Scidev.net	Eldis.org	R4D
ParticipScidev.netSteps to find specific article:1. Types key words (i.e. Big data for development) of specific article into the search box but gets zero result.2. Modifies the search by typing the full title of the specific article "Big data for development: Fact and Figures".3. Scrolls up and down twice before identifying the article on the first page of the search result.4. Reads the brief summary below the title of the article. Clicks on the title of the article. Reads the article summary.Steps to find information:1. First moves the cursor on the search titles on the portal.2. Clicks on the title "Governance" and then "policy". Types the sentence Fiscal regimes of the oil sector in Ghana into the search box of the article but finds zero results. Gets disappointed.3. Modifies the sentence by typing "Fiscal	ant-GH12CategoryEldis.orgSteps to find specific article: Portal did not loadSteps to find information: Types www.eldis.org into Google search engine and realised the website was down. GH12 believes it is not an internet issue since the other two portals (i.e. www.scidev.net and R4D.dfid. gov.uk) worked with the same internet source.Barriers to use: No data were obtained Downloading: No data were obtainedDownloading: No data were obtained	 7 part 2 R4D Steps to find specific article: Types the full title of the specific article (i.e. Development Finance Institutions and Infrastructure: A systematic review of evidence for development additionality) into the search box of R4D. Scrolls down and then up. Begins to read the titles and the brief summaries below the titles on the first page of the search result. Finds the specific article on the first page. Opens it on a different tab. Reads the summary of the article. Steps to find information: Glances through the home page of the portal to see what it entails. Types International trade commission into the search box of R4D but does not get any relevant information though the total search result is 1590. However does not go beyond the first page of the search result.
 3. Modifies the sentence by typing "Fiscal regimes + oil sector + Ghana" but still gets zero results. 4. Realizer Scidey net is a science bias portal as 		4. Modifies the search by typing international frade Commission Dumping and carefully scrolls down to see if there is something relevant to the GITC bill. Does not find any relevant article.
such decides to type "health insurance + farmers" but gets 2 results which are not related to key words that was typed into the search box.		 Barriers to use: Finds it frustrating when looking for an article for the GITC bill. As such gets discouraged in going further with the search.



5. Widens the search by typing only "health	• Finds the portal to be slow.
insurance ". Gets 4 search results that are search	Validity/use: Focuses on peer reviewed articles.
results.	Downloading: downloads specific article
Barriers to use: Finds it confusing to navigate	bownoading. downloads specific article.
through the portal.	Interactive functions: No impact.
Validity/use: No impact.	
Downloading: No downloading activity.	
Interactive functions: No impact.	



Knowledge of:	Participant–GH13 Category 3	Information behaviour:				
Scidev.net: None	GH13 is a lawyer who advises on legal related issues and contracts. Also	Starting: Starts searching for general				
Eldis.org: None	works on policy related issues in the oil and gas industry, government	information so as to get detailed knowledge				
R4D: None	and Non-governmental organisations.	about a subject. Uses Google search engine to start general search.				
Portal challenges:	Uses Google for general search. Demonstrates this by searching for	Chaining: No evidence.				
No evidence to show.	petroleum laws that are relevant for contract negotiations. Tries to	Browsing: Uses Google for general browsing				
Use of information:	international to ascertain which of them best suits the context of GNPC	However, looks for specific articles or				
Shared online: Shares online	and Ghana.	information on specific portals. For instance				
articles with friends and colleagues at work through email.	Also uses Google search engine to looks for general issues and not necessarily law. This is to get a detailed and general knowledge about a subject. For instance uses Google to look for policy related issues on	will prefer to look for law related stories on the Thompson Reuters portal. Will also like to get best practices in the oil and gas industry in Northern economies from the				
Shared offline: Does not share article offline.	best practices for policy formation in the petroleum industry. This does not necessarily focus on Ghana.	European Commission portal. Uses the Nigerian Department for petroleum				
Saved: Saves only relevant articles.	However, GH13 uses specific portals to search for specific information. For instance, looks for information on petroleum laws on Nigerian	resources to ascertain best practices in developing countries.				
Repurposed: GH13 rewrites in Microsoft Word all online articles	oil producing countries in the world. European Commission is also a very good source of information for European laws.	Differentiating : Saves most relevant online articles.				
in own words.	Also subscribes to databases for relevant data in the petroleum field.	Monitoring: Subscribes to portals such as				
Read: Reads online articles a lot.	For instance, subscribes to the Thompson Reuters portal—gives up to date information on laws. The Thompsons portal is very current and	Thompsons Reuters so as to get the most relevant and current law related information.				
	they send emails on various rulings across the globe. The portal contains legal databases where contract samples and published articles	Extracting: Seldom copies online articles. Prefer to read and make own notes.				
	can be found.	Processing: Reads and then writes in own				
	judgement on whether the article is credible or not. Also considers	words the sections of the article that are relevant.				
	articles from recognised portals like that of the European commission.	Assessing validity/use:				
	Also likes PDF documents since they provide the name of the author,	Articles from reliable sources such as				



title, etc. of the article. Also triangulates by enquiring from others to check whether the document is credible.	Thompson Reuters and the European Commission.				
Shares with friends and colleagues through email. Also shares information pertaining to the organisation through the GNPC intranet. Though relies on of portals at the Ministries, Departments and Agencies in Ghana, GH13 does not rely on the GNPC local portal since it contains less information.	 Also have confidence in articles in PDF format. Likes to use own judgement to determine the credibility of an article. Also triangulates by ascertaining the matter of the formation of the formation. 				
Example use of evidence:	credibility of an article from others.				
Did not show an example of research evidence.					
Uptake:					
GH13 does not buy books anymore—mainly because almost all research evidence can be accessed online. Makes working easier and also save time. Some websites are updated on daily basis so it helps GH13 to get most recent information. Able to get very current information in every part of the world. Helps to learn new things easier and faster. This builds GH13's confidence.					



Table 37: Ghana Research Diary Summary Table

Particip ant	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
GH01	find/retrieve	Found: used an online search engine	Found: used an online search engine/ received info in an email from a person	Retrieved: stored digitally	x	0	0	X	0	Found: used an online search engine Retrieved: stored digitally
	why source	It was a general online search which I normally use when looking for information	To support me with ideas on facilitation of capacity improvement workshop	Because of its relevance in my previous usage	x	N/A	N/A	x	N/A	This was a general internet search which I normally use for information gathering.
	validity	I did directly modify parts of the document to suit my assessment report. For example, relevance of governance structures and public relations of an association. I did use the findings to reflect my introductory write up on governance and public relations for an association's	The document was used for similar purposes for similar audience in North America	Had used portions of it previously and it passed the reliability test already	X	N/A	N/A	X	N/A	Incorporated part of the materials into the PowerPoint Presentation and others into templates for capacity improvement sessions



Particip ant	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily <u>08</u>	Daily09
		report I was developing								
	use	read/ repurposed	saved/ repurposed/ other: received a shared copy from a colleague	repurposed	x	0	0	x	0	saved
	type/purpos e	Took notes and directly used it to update an organisational capacity assessment report	Made notes on a presentation/facilita tion of a capacity improvement planning workshop for an association	Made notes on organisation al capacity assessment and improvemen t planning and tailored language to suit my audience.	X	0	0	X	0	Was preparing to facilitate a workshop later in the day on organisationa I capacity improvement planning and had to rely on internet materials to as part of preparations towards the workshop
	influence				х	0	0	х	0	
	research evidence	NO	NO	NO	х	0	0	Х	0	NO
	DFID portals	not used today	not used today	not used today	x	0	0	x	0	not used today
GH5	find/retrieve	x [no response recorded for this question]	0	Found: on paper Retrieved: stored on paper	Found: other [no response in free text box]	Found: other: it was an examination question Retrieved: remembered	x [no response recorded for this question]	x	x	Found: on paper Retrieved: contacted a person
	why source	x [no response recorded for this question]	0	N/A	N/A	[???] I read about the it on a printed material.	N/A	x	х	Because the soft copy was not available so I had to



Particip ant	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
								,		photocopy it
	validity	x [no response recorded for this question]	0	N/A	N/A	By observation and experience in the university.	x [no response recorded for this question]	X	X	It is a national policy which gaining social acceptance /
	use	x [no response recorded for this question]	0	0	0	other: I wrote examination on it	saved	x	x	other: we discussed it in a forum
	type/purpos e	x [no response recorded for this question]	Ο	N/A	N/A	The attitude of Ghanaian University students toward increasing user fees	N/A	X	X	l participated in a conference on discussion of the guideline for the Council for Technical and Vocational Education and Training (COTVET) for Ghana.
	influence							х	x	
	research evidence	NO	NO	YES [???] I read about Ghana's 2016 budget statement and economic policy for the Daily Graphic	NO	YES: The evidence is conspicuous in the slow reaction of university students toward increasing user fees.	NO	X	x	YES [???] I searched for the soft copy of the guide from COTVET website
	DFID portals	not used today	0	not used today	not used today	not used today	not used today	X	x	not used today
GH8	find/retrieve	0	Retrieved: repeated	Found:	x	x	0	0	x	Retrieved:



Particip ant	Evidence	Daily01	Daily02	Dailv03	Daily04	Daily05	Daily06	Daily07	Dailv08	
		Builyon	online search	received email from a person	Dunyon	Danyos	Danyoo	Bullyon	Bunyoo	stored digitally
	why source	0	Was discussing the subject with a visitor who had come to my office	l was looking for information on the subject	X	X	0	0	X	I was brainstorming on the subject for some research write up that I am working on, so I needed to reconfirm some thoughts I had gathered from the source
	validity	Ο	It was a published document that I was previously aware of and knew the author	The author and publisher	X	x	ο	Ο	x	This is a source I had stored from a reliable source. The source is from a respected journal
	use	0	other: downloaded and saved	saved/ read	x	х	0	0	х	read
	type/purpos e	Not Applicable: Mondays are my program management meetings so no real research	Report on Abuse of incumbency for electoral/partisan gains	Looked through two journal articles on MPs Accountabilit y and saved them on my desktop	x	x	x [no response recorded for this question]	x [no response recorded for this question]	x	Read through a study on politics of inclusive development
	influence				х	х			х	
	research	0	YES [???] I did an	YES: A	NO	NO	x [no	x [no response	NO	YES: This



Particip ant	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
	evidence		online google search; I typed in the phrase "monitoring abuse of incumbency +Ghana" and found what I was looking for among search returns	friend sent me two research articles from a reputable researcher/ author. I looked through and stored it t return to it at a later date			response recorded for this question]	recorded for this question]		research evidence is based on empirical source to explain a phenomena, leading to some conclusions about it.
	DFID portals	0	not used today	not used today	x	x	not used today	not used today	x	not used today
GH9	find/retrieve	0	x	x	x	0	x	Retrieved: stored digitally	x	x
	why source	Ο	X	x	X	Ο	x	It was relevant to the discussions and it was the most current information source with respect to the subject matter under consideration.	X	X
	validity	0	x	x	х	0	x	It is a very reliable document	x	x
	use	0	x	x	x	0	x	Other: We had a group discussion around using research for advocacy	x	x
	type/purpos e	0	X	x	x	0	x	l used the Ghana Demographic and Health	X	x



Particip ant	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
								Survey 2014 report. I used the findings to discuss with my other colleagues to develop strategies for advocacy to improve Comprehensive Sexuality in schools		
	influence		х	x	х		x		х	x
	research evidence	NO	x	x	x	NO	x	NO	x	x
	DFID portals	not used today	X	x	x	not used today	x	not used today	x	x
GH10	find/retrieve	Found: other website: Facebook timeline	0	X	Found: received in an automated message	0	0	Found: talked to person/ use online search engine/ used online RPP: statsghana.gov. gh Retrieved: had stored digitally/ remembered	Found: talked to person/ use online search engine	Found: talked to person/ use online search engine Retrieved: remembered/ contacted a person with access to info
	why source	I needed to make references to aspects of it during the chat with said friend since I could not recall all the details of the text off head.	0	X	SciDev.Net provides timely information on global science and development issues. They provide consistent info on antibiotics	Ο	0	The Ghana Demographic and Health Survey is the standard tool for accessing key information pertaining to demographic trends in Ghana / / The adolescent	They are routine sources used in my line of work	Routine sources used in my line of work



Particip ant	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
					and their efficacy against bacteria.			reproductive health policy and SDGs contain critical information important to my line of work (youth reproductive health) / / All the above sources are deemed as reliable due to the institutions behind the information.		
	validity	I checked the source of the information - alliance for reproductive health and rights (mamaye.org.g h) / I checked the date of publication - March 2015 to determine relevance/timeli ness / I compared some details given with my field experience in the district	0	x	x [no response recorded for this question]	0	0	Time for making presentations were limited so there wasn't much scrutiny. However I had used some of this information in the past.	Checked two or more sources to verify information	Cross- checked with information obtained by colleagues with whom I was working with on the assignment
	use	other: discussed it online	0	x	shared online	0	0	shared offline	shared offline	saved/ repurposed
	type/purpos e	I discussed an incidence of	0	x	l read an article on	0	0	I used portions of Ghana's	Used information	Used information



Particip	Evidence									
ant	USEd	bally01 teenage pregnancy in South Dayi District with a friend who works in another organisation, based on information she earlier shared on Facebook. We tried to understand the thought processes of a 13 year old girl who chose to get pregnant because she wanted more attention from her mother (her sister was pampered when she got pregnant).	Danyo2	Daliyo3	SciDev.Net on the negative effects (bacterial resistance) of increased use of antibiotics in developing countries. I shared the link to the story on Twitter.	Dally05	Dally06	reproductive health policy, the Demographic and Health Survey, as well as UN SDGs to identify gaps in SRH programming in Ghana during a workshop	from various sources on youth SRH to begin work on an advocacy plan	from various sources on youth SRH in Ghana to begin work on an advocacy/poli cy engagement plan
	influence			x		0	0			
	research evidence	NO	Ο	NO	YES: The story on SciDev.Net website comes with links to recent research synthesised by the likes of CDC. This might be worth looking at in detail in the future	NO	NO	YES: The contraceptive prevalence rate and youth SRH trends, including teenage pregnancy rates, were gleaned from the Ghana Demographic and Health Survey. The data were used	YES: We found critical evidence in a study that 50% of parents want children to taught sexual education in schools	NO



Particip ant	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
								for a presentation identifying gaps/opportunit ies for advocacy in a workshop /		
	DFID portals	not used today	0	x	SciDev.Net	0	0	not used today	not used today	not used today
GH12	find/retrieve	Found: talked to person	Retrieved: had stored digitally	X	Found: used online search engine Retrieved: had stored digitally	Found: used online search engine Retrieved: had stored digitally	Found: on paper/ used online search engine Retrieved: had stored digitally	Found: used online search engine Retrieved: had stored digitally	x	Found: on paper/ used other website: ministry of finance Retrieved: had stored digitally
	why source	To get first- hand information on the subject matter	I remembered I had an information of that sort	x	I remembered that it was going to be useful	Remembere d it was relevant for my work	Related to the topic	To meet a deadline	x	Found it to be relevant
	validity	Interviewed two more people	x [no response recorded for this question]	x	Went to an International trade Commission website in an advanced country. THIS WAS WHEN I HAD READ THE ARTICLE I DOWNLOAD ED	Searched other database sites	Browse from IMFwebsite	Searched other organisational website	X	Checked from world bank and bank of Ghana website
	use	read	repurposed	x	saved	repurposed	repurposed	repurposed	x	repurposed
	type/purpos e	Made notes about the challenges of	Challenges faced by pubic accounts committee of	x	Functions and structure of International	Made notes about how unequal	Role of parliament in managing	Made notes on role of parliament in	x	Budget information, summarized



Particip ant	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
		implementation of public accounts committee of Ghana	parliaments		trade Commission	distribution of wealth is a threat to democracy. I am to write a conference paper for a member of parliament	external debt. A request by a member of parliament for publication	curbing illicit flows of financial and national natural resources from Africa to be delivered at a conference		and analysed it for a publication
	influence			x					x	
	research evidence	NO	NO	x	YES: With this information I communicate d to the members of parliament who were considering the bill	YES: Efforts by the government of Ghana to reduce wealth inequality. Found it from various articles to write the paper	YES: Ghana debt level and sustainabilit y. From Google search fir the write up	YES: Illicit flows in the extractive sector to be presented at a conference	x	YES: Ghana shared growth and development strategy, have a hard copy, extracted data from it
	DFID portals	not used today	not used today	x	not used today	not used today	not used today	not used today	х	not used today



B.3.2 Tanzania User Profiles and Diary entries

Table 38 below summarises our Tanzanian participants and the data collected from them. This section contains the user profiles generated from 11 of those participants and a summary of the daily journal entries.

Table 38: Summary of Tanzanian participants

Participant	Gender	Category	Sector	Data collected
TZ1	Μ	Development worker in civil society	Agriculture	CI, DP, D7
TZ2	Μ	Academic/Researcher	Economic Growth	P, CI, DP, D3
TZ3	Μ	Knowledge broker/intermediary for policy makers	Generalist	P, CI, DP, D3
TZ4	F	Academic/Researcher	Gender and Equality	CI, DP, D3
TZ5	М	Civil/Public Servant	Agriculture	CI, DP, D10
TZ6	F	Knowledge broker/intermediary for policy makers	Science and Technology	CI, DP, D7
TZ7	F	Academic/Researcher	Economic Growth	CI, DP, D5
TZ8	F	Media professional	Generalist	P, CI, DP
TZ9	Μ	Academic/Researcher	Economic Growth	f2f interview on influencing policymakers
TZ10	F	Development worker in civil society	Health	P, CI, DP
TZ11	F	Academic/Researcher	Science and technology	f2f interview on influencing policymakers
TZ12	Μ	Academic/Researcher	Economic Growth	CI, DP, D1
TZ13	Μ	Civil/Public Servant	Education	Р
TZ14	Μ	Media Professional	Generalist	Р
14 participants ove	rall	10 complete f2f sessions	5 com (i.e. re	plete diaries eflection complete)

* P = phone interview, CI = contextual inquiry (first half of f2f session), DP = discussion of portals (second half of f2f session), D= Diary, Dx = x number of journal entries returned

University University

Knowledge of:	Participant – TZ1 Category 4	Information behaviour:
Scidev.net: none	T71 works in an advance organisation, an umbrolla	 Starts new search in Google
Eldis.org: received their weekly reports in the	for bringing together private companies and local	 Downloads PDF documents to read
past, may still be receiving them but haven't	and national NGOs and farmers' organisations. The	 Will skim the table of contents
had the time to read them. Sometimes share	organisation focuses on academic research but also	 Don't need to save everything you've opened but
within organisation. Went to website maybe 2	what is working and what is not, in agricultural	can open in a different tab to have access before
years ago.	policy. They use the learning to influence	deciding to save
R4D: none.	government and donors.	 Several tabs may be open from several
Portal challenges:	TZ1 usually downloads documents found that are	Institutions
• Many organisational websites and portals	relevant, e.g. by looking at the title and table of	key words may include the source organisation.
are complex, but Google searches within the	contents, and some interesting figures, skims	Chaining: from Google to found sources: from
site and you get the relevant report more	through the document to look for specific topic of	found sources to download reports; may open
airectly.	current interest. May also look for reports to	several from one institution/organisation.
the nortal and found the advanced search		Browsing: scans titles in Google, didn't move from
complicated.	In Tanzania, they have problems with the data.	front page in Google, scans downloaded reports for
• "we understand we have poor	Organisations and government have different figures	table of contents, interesting figures, key words.
connection " but there may be different	to agriculture For example in Uganda they	Differentiating: opens different documents from
reasons; not many people are using it on a	"include the budget for military in	the same organisational website in different tabs,
Sunday (Eldis).	the agriculture budget because you	downloads reports and saves if relevant.
Use of information:	need security in order to farm - if	Monitoring: keeps up-to-date with changes in
Shared online: internal within organisation,	there is war then you can't farm".	CAADP (comprehensive Africa agriculture
by email, point to specific interesting	They use the information offered by the government	development programme).
information in it.	and other sources to see how much of the budget	Extracting: extracts budget figures and also
Shared offline: discourage printing.	they say has been allocated to agriculture. They also	farming motor bike availability how do they offer
Saved: Yes, TZ1 saves interesting reports for	look at regions to see what allocation is there, and	services etc.
future reference, keeps address and closes	resource allocation generally. How many deployed	Processing: see repurposed on LH
online source.	extension stall are there in urball areas compared to	
Repurposed: uses paper to note source, and	Whending culture is not that much	Assessing validity/use:
reterences, identifies figures, charts and	in the country people want to see	Itle for relevance
tables to refer to, and if there is a focus on	ready-made things. They don't have	• Author
social groups, e.g. poorest groups. Can't	-caal made onings, they don t have	 Credible source organisation: FAO, IFPRI



extract directly if source is a PDF (which it	time to torture their brains	"Author and credibility of the					
mostly is).	<laughs>"</laughs>	organisation has a lot to do with					
Read: read through report, table of contents, searches for keywords.	Sometimes when something has been shared and then followed-up, people say that they haven't seen it.	the quality of the information." It doesn't mean that new sources are not credible but it takes time for people to trust the source.					
	Example use of evidence:						
	Ongoing concern with agricultural budget, updated every 6 months or so. Within the organisation they assess this programme to see how much budget is going to rural development etc. The target is 10% budget allocation to agriculture. TZ1 authored reports about this programme. May also look at gender or youth budget.						
	Uptake:						
	"There is a lot of evidence						
	available online, but the question						
	I have in mind is "so what?"". The						
	politicians don't need the portals to change, they						
	need the information on their table to make						
	decisions and move forward. The research needs to						
	be more accessible in terms of presentation but also						
	in terms of the steps to take to implement change.						
	Politicians want steps for how to change, and						
	unfortunately researchers are not doing that. We						
	need to create a link between the researchers and						
	the politicians – to translate between research and						
	practice. Translating research into practice should be taught. Having evidence online is not sufficient. Also						
	need to create platforms between						
	research/academic and the practice. For example						
	ReSaKSS aims to link research and country context.						



Partic	ipant – TZ1 Category 4	part 2
Scidev.net	Eldis.org	R4D
Steps to find specific article "Big data for	Steps to find specific article "Three tools to unlock	Steps to find specific article "Using climate
development: facts and figures":	finance for land-use mitigation and adaptation":	information to achieve long-term development
1. types in 'data for deve facts figures' to search	1. types 'tools unlock finance land-use falconer	objectives for African ports":
box on top right	2015' into search box on LHS	Doesn't usually look for a specific article any more
2. returns zero results	2. required document is first in the results list of	1. types "climate change long term development
4. tries to correct search to 'data for development	12915 documents	Africa woolhouse 2015" into simple search box
facts figures' but editing in box only allows deleting	Steps to find information:	2. first item in search results.
the characters from the right and re-entering	They have a lot of information on agric, and so TZ1	Steps to find information:
5. types in 'data for development facts figures' to	became interested. TZ1 doesn't remember how	1. reads home page information to decide whether
search box on top right	they found out about it, maybe 2002.	to continue with portal
6. receives 58 results, scrolls down first page and	1. took a while to load (59:16 1:02:0) so over 2	2. reads the LHS menu structure
returns to search box to enter person	minutes " very slow ", so went to SciDev.net	3. observes that this appears to be research for the
7. adds 'emmanuel 2014' to search terms	2. returns to Eldis 30 mins later and the home page	government
8. article is the only one in the results list	loads quickly	4. chooses the LHS menu item "Browse by country"
Steps to find information:	3. goes to LHS set of menus to see what's of	5. looks for Tanzania but it's not there – is under
3. 1. reads the top strap line and says "I've	interest: evidence for policy and practice, gender	United Republic of Tanzania
never heard about this"	and governance	6. looks at region, but doesn't choose anything
2. scrolls down the home page	4. chooses evidence for policy and practice, and	7. opens the document Searching R4D, was
3. points to the main menu items Agriculture (1),	comments that this is 'user friendly'	expecting to see further information on the
Environment (2) and (pause) Governance (3) and	5. identifies 'country profiles' on LHS and sees that	country "maybe this is a waste of
says would only concentrate on those	it is easy to get information about the country "I	time reading this" and scrolls through it.
4. looks under the agriculture menu and reads the	hope the profile is not static"	Says will go back and fumble around the website
sub-menus	6. chooses 'more countries', then Tanzania, and	8. chooses documents
5. considers whether the 'Home' button refers to	scrolls down the information.	9. looks at titles for the first page of results
home for Agric or home for the site and is	7. highlights the main Tanzania box and says	10. says would like to be able to add extra
confused about it	"outdated" because the population figure is	information in the browse by country search page.
6. chooses fisheries sub-menu and looks for data	incorrect	11. goes to advanced search and enters keywords
7. looks at RHS refinement menu but nothing there	8. chooses governance from LHS menu under	"agricultural budget gender". Now it's no longer



to help	country profile	for the country-specific. Includes Tanzania in the
8. scrolls down the articles "that looks	9. scans the results and chooses one article on	keywords
interesting"	political dynamics of economic growth, downloads	12. Tries to complete the advanced search fields
9. chooses data menu item, and it goes to fisheries	PDF	"this is very complicated"
articles again	Barriers to use: country information is out of date	13. submits search
10. goes back and tries again. The page returns	Validity/use: in abstract, found keywords of	14. one project is returned and it is outdated
articles about data and not data, which they	interest: "political determinants of economic	15. returns to browse by theme and looks for
expected	growth"	country
11. "for me the data would have been	Downloading: downloads as above, using tabs	16. chooses agricultural innovation, finds a project
something like statistics. Maybe	Interactive functions: not used	on farming innovations in sub-sahara but can't see
the word 'data' has been misused"		if it includes Tanzania
Barriers to use: position of 'home', 'data',		17. looks for completed reports, and for Tanzanian
'multimedia' buttons is confusing; expects 'data' to		information "first and foremost my
be a subset of, e.g. 'agriculture' and to find data for		country"
fisheries etc. rather than a main menu for data;		Barriers to use: advanced search is complicated;
navigation and links between different sections		guidance for searching wasn't what was expected;
Validity/use: nothing found of interest, although		accessing Tanzania-specific information in the field
there was a lot on agriculture		of interest was hard
Downloading: nothing downloaded		Validity/use: date, completed reports, Tanzania-
Interactive functions: not used		specific information about agriculture
		Downloading: none attempted
		Interactive functions: not used



Knowledge of:	Participant–TZ2 Category 5	Information behaviour:
Scidev.net: None Eldis.org: None R4D: None	TZ2 is an academic and researcher in innovation econo Works for a science and technology think tank in Dar es Sa Tanzania.	Starting: Starts online search purposively. Searches for quantitative data online through the World Bank, International Monetary Fund and Industrial Statistics or the National Bureau
 Fortal challenges: Eldis was very slow and TZ2 spent 10 minutes trying to download it and still was not successful. Internet connectivity was also a problem—mainly because of erratic power supply. 	the report. Collects online economic data from the World Bank p Collects online data from the World Bank portal because da the portal is collected from various sources like the Na Bureau of Statistics, Tanzania and has been referenced by s authors. Copies the online data into excel for further proces present the data in a table format and them uses them to	 of Statistics portal. Chaining: Copies references from relevant articles and then pastes them in the search box of Google scholar for further search. Browsing: Browses with both the Laptop and the mobile phone. Likes to read titles of online articles when looking for relevant articles. Also plot a scrolls up and down during online search.
Use of information: Shared online: No Shared offline: Shares online articles with friends and the director of the institution. Saved: Saves every data downloaded in order to avoid going back to the online source for the same article. Also enables TZ2 to save time. Repurposed: Reads online article, rewrites it in own words and uses it to prepare the report or the PhD proposal. Read: Reads article online. Also reads saved articles. In some instances TZ2 will prefer to print out the article before reading.	<pre>graph. TZ2 saves the data in order not to lose it. TZ2 said that ". is because I want to keep it. I can even back tomorrow to verify. [I save] becau am even if I lose this report I still the data to produce it againalso s time for searching the data again". Also uses Google scholar to search for relevant online an Prefers open access articles. For instance, tries to downlo article from Google scholar and realises it is not for open a Tries to see if the same article can be downloaded in a dif format for free. TZ2 indicates that "this paper is u purchase and I find that there is and opportunity for this one [a PDF version the same article] to be downloaded for f so I download it". Downloads the article on Google scholar and then looks for relevant references in the article. Indicates that those article cannot be saved or downloaded on Google scholar are enline TZ2 reads important sections of the online article cannot be saved or downloaded on Google scholar are enline TZ2 reads important sections of the online article.</pre>	 Differentiating: Copies relevant online quantitative data into excel data and saves it. Monitoring: No evidence found Extracting: Extract quantitative data from both international and local internet portals. Also tries to write in own words articles on Google that cannot be saved. Looks for relevant online articles on Google scholar. Downloads open access documents. Processing: Rewrites articles in own words. Also prefers to use quantitative data for analysis in excel. For instance, TZ2 uses data downloaded from the World Bank portal to plot a graph in excel. More s that used Assessing validity/use: The source of the online information must be recommended by someone else who is



cannot be saved after scrolling up and down. Writes down the article in own words. TZ2 closes the article on the page.	 Is also interested in how relevant the abstract is to an ongoing work.
Looks for online article by typing keywords in the title of the article. TZ2 was unable to find the article and so decides to narrow search by further narrowing the research title by adding "developing countries". Scrolls down the first page of the search results and carefully reads the titles of each search result. Finds the most relevant article and then downloads it. TZ2 prefer to read the abstract of the article to find out whether the article is relevant. If relevant, TZ2 proceeds to look for more relevant references in the article for further online search.	
Indicates other portals such as "Industrial Statistics" and the National Bureau of Statistics of Tanzania are also very important for the report and the PhD proposal. Shares article with the director of the organisation. Internet goes off.	
Spends 22.04 minutes trying to get the internet connection on again.	
TZ2 trusts portals that have been recommended by others in the area of study. This boost's TZ2's confidence about the portal. For instance, TZ2 explains that the World Bank and National Bureau of Statistics portals have been tried and tested both with and outside Tanzania and so have confidence in those portals.	
Example use of evidence: Writing a report in the area of innovation in formal and informal	
micro-enterprises.	
Uptake: Able to learn new concepts/things online For instance T72	
indicates that "I did my masters in development	
studies but I am now in the area of	
innovation and so I am able to look for information online to help me understand this new area [i.e. innovation]"	



Participant–TZ2 Category 5 part 2		
Scidev.net	Eldis.org	R4D
Steps to find specific article:	Steps to find specific article:	Steps to find specific article:
1. Goes back to the home page of the portal to	No access	1. Types the URL of the portal into the search
look for specific article with the title "Big data for	Steps to find information:	box of the portal. This was after the network
development: facts and figures".	No access	started working again.
2. Types the full title of the specific article into	Barriers to use: The network goes down just after	2. Types the full title of the specific article
search box of the portal. Reads the first four titles	the specific article for SciDev.Net was found. TZ2	"using climate information to achieve long
of the portal. Identifies the fifth title as the specific	spends another 10 minutes trying to fix the internet	term development objectives for African
article.	so as to be able to download the Eldis portal.	ports " into the search box of the portal.
3. Clicks on it, reads the speed read section of the	Becomes unsuccessful and so decides to move on to	3. Realises the network is off again.
article and indicates that it is the right article.	R4D.	Reconnects to another network and then
Indicates that the article cannot be saved.	Validity/use: No access	continue the online search.
Steps to find information:	Downloading: No access	4. Types the specific article into the search box
1. Decides to use mobile phone to access internet	Interactive functions: No access	again.
since the fixed lines are no more working.		5. Reads the titles on the first page of the
2. Scrolls down the home page of the portal after		search results, and finds the specific article.
downloading the portal.		Downloads the article in PDF format.
3. TZ2 reads each title while scrolling down the		Steps to find information:
home page of the portal.		1. Types the URL of the portal into the find box
4. Clicks on an article with the title "Patents fail to		on the mobile phone. Able to download R4D.
boost crop yield". Indicates that was expecting to		Indicates that Eldis was unable to download
find such types of articles on the portal.		partly because the portal is "not working
Barriers to use: Poor internet connectivity was the		properly".
main issue during the online search on the specific		2. Scrolls down and then reads the titles on the
portal.		left hand side of the portal. Clicks on "browse
Validity/use: Indicates that the portal may be a		by theme" button on the left hand side of the
DFID portal but will prefer that it is recommended		portal.
by others who are familiar with the portal. This		3. Scrolls and reads topics from up to down
will boost confidence in the use of the portal.		and left to right on the portal on the mobile
Downloading: Clicks on the specific portal but		phone.
finds no attachment. Indifferent about the fact		4. Clicks on the sub topic "economic growth".
that there is no attachment to be downloaded.		And then reads the various topics on the


Interactive functions: Likes the interactive	results page. Clicks on the fifth research title.
functions but will only share a link on the portal if	5. Reads the summary and looks at the source
the portal is known to be reliable.	of the online article. Downloads the online
	article in Microsoft word format.
	6. TZ2 does not understand the objective of
	the portal.
	7. Power goes off. Network on the phone also
	goes off since TZ2 was using a different
	network.
	8. Connects to another network on the phone.
	Barriers to use: Poor network connection as a
	result of frequent power cuts made online
	search very difficult. For instance, the power
	went off twice during the online search.
	Validity/use: Source of the article must be
	referred by someone who is familiar with the
	portal.
	Downloading: Downloads specific article.
	Interactive functions: No significant impact.



Knowledge of:	Participant – TZ3 Category 7/5	Information behaviour:
Scidev.net: none Eldis.org: none R4D: has been to the portal when someone suggested/shared an article available through the portal but hasn't before studied the portal itself	TZ3 works in a think tank whose research is focused on influencing policy around science, technology and innovation. TZ3 produces policy briefs and follows the research produced by the think tank to determine whether the government makes any changes as a result of what they did. TZ3 works on communication and policy engagement strategies.	 Starts search in Google, to get background to the topic, e.g. definitions and countries involved Identifies research papers Looks for organisations' work Starting: looks for keywords, and/or for organisations, starts with general topic and then becomes more specific in the second second
 Portal challenges: Universities don't have online platform in place for all of their research Some power problems, e.g. if it is rainy, but it doesn't happen often 	TZ3 also conducts their own research and is studying with the local university. Information is found through Google search or ministries' websites, or websites of other institutions, and universities. TZ3 wants detail and is hence most interested in journal papers. TZ3 search in Google includes "research on."	search, e.g. special economic zones, then China, then household. Uses acronyms in search Chaining: from Google to PDFs for downloading, checks references and searches for references of interest
Use of information: Shared online: internal within organisation, by email as a link or as an attached document Shared offline: through presentations	keyword, or specifically "journal paper". TZ3 reads from different sources to get different perspectives. "this is a powerpoint presentation, which by itself is not enough"	Browsing: scans titles in search engine, says that sometimes might have to go to second or third page but doesn't do so in this demonstration
Saved: Yes, in folders on PC Repurposed: extracts references from one source to conduct a new search on that reference. Uses an empty word document to type in points from the paper including the reference (for the papers that TZ3 has concluded that they are useful for current work). Always write in your own words Read: reads details for the publication, then the abstract. TZ3 doesn't read all the paper, only the relevant sections, identified through	The organisation has internal quality control processes for documents produced, e.g. internal presentations to colleagues and to Board members, who are senior researchers. Also, they sometimes use plagiarism software to check. Social sciences research is very subjective. Universities are their partners, there are researchers there, we may share with each other, there are calls for papers, events to attend Example use of evidence: Policy brief on export processing zones. Policy says there are	Differentiating: looking for journal papers that are relevant to TZ3's topic Monitoring: regularly checks Dar es Salaam University website, and other university websites Extracting: identifies lines of interest in the paper, copies the source reference and uses it in a new search. May influence the focus of investigation. Writes notes in empty word file Processing: see repurposed on LHS
the table of contents	a number of incentives for innovation so we do research to see how the incentives work out. We then influence decision making as to how the system can be improved. We then	Assessing validity/use: • Title, it must be on the topic





follow where sult of we science and part of the	ether the government makes any changes as a nat we did. The government is currently reviewing d technology policy which is not out yet. We were task force group about the policy.	 Research papers, published journal articles, or policy documents Wants full papers and as much detail as possible
Uptake:		• Knows that some organisations work in
There is m many these	ore research work available online, but there are as from universities that are not accessible.	the right areaAcademic universities and specific
"very f	ew universities have managed to	departments
put in	place online platforms where you	• Date – if a more recent document is
can rea	d all their research papers for	found that supersedes an existing one
some it	's just an obligation to fulfil	being used, then the older one is
for you:	r graduation but for me it's very	dropped
importar work"	It to have access to that research	Has been sent links on R4D by colleagues
Eor. organi	sations doing policy research communicating	and so knows that it has important
research is	sations doing policy research, communicating	information
There's or	ne primary target audience and also some	
secondary	targets who can put pressure on the decision-	
makers. Co	mmunication is primarily to people in ministries,	
but also to	partner organisations. Access to online evidence	
has absol	utely changed the way TZ3 interacts with	
colleagues.	Without online access "where would I get	
it from?	Go to the university? " People used to	
visit minist	ries and other institutions to get information, but	
that was e	xpensive in time and money, especially because	
without an	online platform the procedures were long. TZ3 is	
confident b	ecause access to information gives power.	



Partic	ipant – TZ3 Category 7/5	part 2
Scidev.net	Eldis.org	R4D
Scidev.netSteps to find specific article "How to communicate in an interdisciplinary team":1. scrolls down home page, scanning, then returns half way up the page2. chooses the magnifying glass icon at top right3. enters "Jessica Thomson" in search box, nothing returned4. deletes the large print "Jessica Thomson" in the middle of the page and enters over the top of it "How to communicate in an interdisciplinary team" The double 't' isn't noticed because the end of the search string is obscured by the magnifying glass icon5. receives 0 results6. looks over the screen and chooses the magnifying glass icon that is to the right of the	Eldis.org Steps to find specific article "Strengthening of health systems for equity and development in Africa", Africa Health Strategy 2007-2015: chooses 'global health' from LHS menu scans the titles of the 'latest documents' enters in the search box on LHS, within health "Africa health strategy 2007 – 2015" scrolls down the first page of results looking for the title "because what I inserted is not the full title" goes to end page of results (4111 results returned) goes back to page 2, scans it, and then page 3, scans and then page 4 edits term in search box (still in Health) to "strengthening health systems for equity and 	K4DSteps to find specific article "Using climate information to achieve long-term development objectives for African ports":1. chooses "browse theme", then "climate and environment"2. scans the results list three times 3. goes to page 2 of results, then 3 then 4, reading the titles4. chooses 'search again' and this goes back to browse by theme.5. chooses 'climate and environment' and 'search again' "I want to use a short cut"6. waits for 'refine your search' options to load 7. goes to page 2 of search results 8. chooses 'documents' in refine your search option
large print in the centre of the screen 7. goes to google and types "Jessica Thompson, 2013, communicating in interdisciplinary team" 8. article is fourth in Google's first page and TZ3 chooses it from there and is taken back to SciDev.Net	<pre>development in Africa" 8. scans first page (still 4111 results) "where is it hiding? There's no author's name?" 9. goes to page 2, scans it, and then page 3, scans and then page 4</pre>	 9. finds article on first page and downloads PDF Steps to find information: 1. types "PEC" into the simple search box 2. reads the titles of first three results and modified search term to "policy engagement and communications"
 Steps to find information: 1. scrolls down the home page 2. returns to the main menu and chooses Agriculture, then Food Security 3. reads the abstracts for several of the articles on this page 4. chooses one article on smallholders gaining from nitrogen-efficient maize 	 10. TZ3 shakes head, "there are 400 pages you keep looking until you are tired" 11. edits search box and adds "Africa Health Strategy 2007 - 2015" 12. (same number of results returned) scans first page. "this is hard to find" 13. scans page 2 and page 3. "I would look 	 scans the first page of results, and returns to the top. chooses third item in list "Policy and Research Programme on the role of media and communications in" scans the details of the project goes back to search list and scans again. Several



5. reads 'speed read' and hovers over the social	for the name of the author"	items are of interest in his work - e.g. "policy
media icons on LHS	14. goes to google and enters "strengthening of	influencing and media engagement training
6. reads the article "this is very	African health systems for equity and	workshop"
summarised. It is good to	development, Africa Health Strategy 2007 – 2015"	7. looks for the home page button and says "I am
summarise but it is good to give	15. scans first page then edits the search to	experiencing troubles to go back
somebody the option to read	"strengthening of African health systems for equity	to the home page"
further"	and development"	8. chooses browse research contacts and looks at
7. clicks on a paragraph that refers to household	16. opens one PDF and says "the name of	evidence-based health care centre. TZ3 finds the
food security, that appears to be a hyperlink. This	the author is really important"	information available interesting
goes to the sub-section on food security again. TZ3	(in fact TZ3 did find the document in the searches	9. returns to home page and chooses 'browse by
is surprised "I expected it to maybe	but didn't recognise it as looking for author name)	theme'
explain what food security means,		10. looks through the options and reads out
but it is a pictorial	Steps to find information:	several topics
9 continues to browso by sub monumouing next	1. scans the menu items on LHS then goes to	11. returns to home page and chooses 'browse by
a. continues to browse by sub-menu, moving next	Topics tab	country/region' "this portal is nice
to investock	2. goes to resource guides on LHS 'evidence for	It is simple and it is rich in
9. asks about submitting articles to the portal	policy and practice'	terms of resources"
10. chooses news article on biosiences research	3. reads the headings in brown/green banner	Barriers to use: none observed
11. would like to be able to read more through a	4 chooses an article called "Food safety in	Validity/use: relevant topic – site is trusted and so
link or to download but recognises that this is a	developing countries: an overview"	all information is good
news site and appreciates the pictorial	5 chooses the 'web' view full report option and	Downloading: none – downloading was fine
presentation. "I picked this article	PDF downloads	Interactive functions: not used
of the photo"	6 returns to home using the 'home' menu item	
12 goes back to home have by using the back key	"there is also resource guides. I	
12. goes back to nome page by using the back key	hope this guides you how to use	
because 125 did not see the nome link	the site"	
Permisers to use likes the summarized nature of the	7. chooses resource guides menu item and scans	
Barriers to use: likes the summarised hature of the	the information there.	
information to read in denth	Barriers to use: search function was difficult to use	
Malidity/user Nana absorved	effectively	
valiaity/use: None observed	Validity/use: wants detailed information	
Downloading: chose link and downloaded into new	Downloading: downloads fine	
	Interactive functions: not used	



Interactive functions: not used	



Knowledge of:	Participant–TZ4 C	Category 5	Information behaviour:
Scidev.net: None Eldis.org: Seen and used it before— through the organisation's library, but does not know it is a DFID	TZ4 has being working with a think tank since 20 gender and social protection issues. TZ4 has w and reports on gender and social protection.	012. Works mainly on ritten several articles	Starting: Starts online search with Google general search engine. Prefers the start online search by typing keywords (in some cases phrase) of the title of the article.
portal. R4D: None Portal challenges:	Uses Google search engine for various online sea prefers to use keywords or short phrases w specific article. TZ4 demonstrates this by typin general article "disability policy in Tanzania" into	arch activities. Mostly then searching for a ng the keywords of a o Google search box.	Chaining: Copies most relevant titles in the reference section of an article into Google search engine for further search.
Scidev.net did not respond well during the CI session.	Reads titles of the articles on the first page Identifies a relevant article in PDF format on search result	of the search result. the first page of the	Browsing: Scrolls up and down the pages of a search results. Reads hurriedly the titles on the page.
Use of information: Shared online: Seldom share information since they may not be	Clicks on the title of the article to download it the process of doing so, TZ4 glances through th the article to find the most relevant section of th	. Scrolls down and in e table of contents of ne article.	Differentiating: Highlights most relevant sections of an article before saving. Monitoring: No evidence.
Shared offline: No Saved: Yes, saves most relevant articles.	Finds the page where the most relevant section be found. Prefers to work electronically, as highlight the most relevant section of an arti- future use. Saves the article after use.	of the document can such, would like to cle for immediate or	Extracting: Copies most relevant section of an article. Processing: Re-writes copied section of an article.
Repurposed: Copies, only relevant sections of an article. Writes the article in own words. Highlights sections copied. Read: Reads the abstract.	TZ4 copies the highlighted section and rewrites For instance, TZ4 shows a highlighted section indicates that "I copied this part [t section] from an online paper write it in my own words".	it to suit own words. on of an article and the highlighted .I am going to	Assessing validity/use: In assessing the validity of an article, TZ4 considers the following: • Name of author • Source of article
background or conclusion of the article to ascertain whether the article is relevant.	In looking for the most relevant document, TZ4 read the abstract, background information ar downloaded article.	sometimes prefers to nd conclusion of the	 Source of article Also prefers articles in PDF format.
	Indifferent about the age of the article, but co the article and source as the important for crea documents from sources like DFID, World Bank.	nsiders the author of dibility issues. Prefers	
	Example use of evidence:		



Has written an article on social inclusion of people with disabilities.
Uptake:
Access to information is now very easy and has saved a lot of time for
TZ4. Does not need to go to the library to look for information.
Indicates that "even we don't use our library"



Par	ticipant–TZ4	Category 5	part 2
Scidev.net	Eldis.org		R4D
Steps to find specific article:	Steps to find specific article:		Steps to find specific article:
No access	1. Types the keywords of speci	fic article into the	1. Types the keywords of the specific article into the
Steps to find information:	search box of the portal.		search box of the portal.
Types the website address into the find bar,	2. The portal did not respon	dent on the first	2. Reads the title of the specific article. Realises that
but SciDev.Net did not upload well. TZ4 makes	attempt. But decides to give it a	second attempt.	the first article on the first page of the search results
several attempts to no avail. TZ4 gives up the	3. Types the keywords of the s	pecific article into	is the specific article.
search.	the search box of the portal on	ce more. This time	3. Clicks on the specific article. Looks carefully at the
Barriers to use: Scidev.net did not upload	portal uploads.		title, the source, date and the name of the author of
properly.	4. Finds the title of the specific	article on the first	the specific article. Realises it is the same article.
Validity/use: No access	page of the portal. Clicks on th	e portal and then	4. Downloads the article.
Downloading: No access	reads the summary of the specif	ic article on portal.	Steps to find information:
Interactive functions: No access	5. TZ4 is of the view that the	number of search	1. Types the website address in the find bar. Looks
	results may not be an issue. Will	narrow the search	very closely at the DFID and UK aid logos on the left
	to get fewer search results in c	ase the number of	and right hand sides of the portal respectively.
	results is many.		2. Decides to click on the heading "browse by
	Steps to find information:		country/region". Looks for "United Republic of
	1. Looks at the portal again to s	ee if it is the same	Tanzania". TZ4 then clicks on "current projects".
	in the organisation's library.	Confirms it is the	3. Finds 1735 search results. Decides to narrow down
	same.		the search. Decides to go back to the home page.
	2. Scrolls down the portal and	finds the heading	4. Clicks on "theme" on the home page. Under the
	"gender". TZ4 clicks on it.		heading "Education" TZ4 clicks of the "focus on girls'
	3. Does not find any relevant	article. Decides to	education". Becomes impressed with how the various
	find a different article. Types	the phrase "cash	themes have been arranged on the portal.
	transfer" into the search box o	f the portal. Finds	5. TZ4 finds 65 search results. Scrolls up and down to
	2579 documents and 129 organ	nisations. Indicates	find a relevant article. Initially does not realise that
	the search results are too many.		the search results comprise of a mixture of "projects"
	4. Decides to narrow the searc	h since the search	and "documents".
	results are not only focused or	n Tanzania. Selects	6. Realises later that there are "project" and
	"Tanzania" on the menu and the	en clicks on search.	"documents" on the same page. TZ4 then clicks on
	Find a relevant article on the find	rst page. TZ4 clicks	"documents" to differentiate the content from that
	on it.		of "project".



Barriers to use: No evidence found Validity/use: Considers the date, name of author, and source of the article.	Barriers to use: No evidence found. Validity/use: see Eldis on the LHS. Downloading: Downloads specific article.
Downloading: Downloads and save specific article. Interactive functions: No significant impact.	Interactive functions: No significant impact



Knowledge of:	Participant – TZ5 Category 3/6	Information behaviour:
Scidev.net: subscribed to their newsletter and has used portal before, most recently 'yesterday' Eldis.org: none R4D: has been to it before, but not frequently	TZ5 works in an analytics unit on monitoring and evaluation. Conducts mostly quantitative fieldwork as well as a little bit of qualitative research. In TZ5's unit, credible data is very important. They will use data from other ministries in order to compare and check data, even one unit difference can change your decision.	 Starts new search in Google (favourite search engine) Includes 'PDF' as one of the search terms "most of these (reputable) publications have been published in PDF"
Portal challenges:	TZ5 has very focused information behaviour. Reads a lot of	Opens each paper in new tab. This saves time while others download
 Navigation – this was evident on a think tank website that TZ5 is familiar with, but TZ5 could not find what they were looking for. Also in comments during the session that documents may be "hidden" Even if in the field TZ5 has to have connections so uses hotspots through smartphone which is generally reliable "Yesterday we had very big problems with Tigo network" 	material, in a focused manner and in detail "more than even eating, I like reading". TZ5 reads and then conceptualises points for study. TZ5 is very concerned with finding credible reports or papers and will check the publisher's credentials as well as the article itself. TZ5 is not thrown by finding documents that are not relevant, either by searching or by browsing -they just keep looking. Driven by interest and relevance and is able to process a lot of evidence/reading quickly. TZ5 has a clear approach to evidence and is particularly interested in quantitative data.	Starting: uses key words in Google; prefers Google as a starting point rather than a portal Chaining: from Google to found sources; read only the first page of results (in our session), but works through each one systematically. As only wants PDF no further online linking Browsing: reads titles one by one in Google search results
Use of information:	Example use of evidence:	Differentiating: reading helps to rule out
Shared online: none reported Shared offline: waste of resources to print lots of papers, but policy briefs are hard copy. Sharing verbally through presentations	A report on the adoption of agricultural innovations in Tanzania, specifically sunflower farming innovations for smallholder farmers: their adoption rates, the challenges, and influential factors, and how do these innovations help the farmers.	information. After initial assessment, reads the whole article. Treats each article/source according to its type, e.g. blog, journal article. Compares data from several sources to inform work
Saved: reads from the screen before saving	Uptake:	Monitoring: always online looking for
extracts quotations, conceptualises from what they have read Read: reads title, abstract and conclusion to	"When you go to advise politicians you have evidence in hand. Especially for us we are working closely with our president you need to have the evidence"	Extracting articles Extracting: works systematically through found resources
decide whether to save. Reads whole article	The President is interacted in evidence if presented in the	
thoroughly and quickly.	right form. Politicians are not interested in detailed	Publications from reputable journals



lume Two:	Appendices
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quantitative information	ion such as t-test results; these have to • Publisher "I go to history of
be re-packaged and r	reduced in volume because they don't the publisher – I assess
have the time. Re-pac	ckaging means including specific results what kind of publication it
and justification for ho	bw you obtained those results. is because there are many
"You give them	n your whole document but that are fake"
sometimes they	will assign someone to read • Content: methodology, objectives and
this for them a	nd compare it to the brief" highlights of results
They are very strate	gic, for example looking through the • Trusts documents in the DFID portal (R4D)
references to check the	eir credibility.
More evidence is available	ilable for free online. This has made a
difference, because if	you have many sources it widens the
basis of knowledg	ge. "Now you have free
publications, i	t doesn't mean they are not
credible". Ministr	ry data is online too; a recent open data
conference included	l government, public and private
organisations.	



Partie	cipant – TZ5 Category 3/6	part 2
Scidev.net	Eldis.org	R4D
Steps to find specific article "Big data for development: facts and figures":1. types in "big+data+development" to search box.2. scans down first page of 206 results reading titles, document is not there3. adds "+facts +figures" and comments that they're not sure if it is PDF4. target document is number 5 of 13 results5. checks the article's author before confirming that it is the right documentSteps to find information:1. scrolls down the whole home page, reading titles2. chooses 'browse type' from top menu and reads through them - to see what is there3. types into search box "agricultural innovations"4. the first item in the list is titled "Open data underpins equality". Although not distracted by this, TZ5 agrees it not what they expected to see "No, I keep on searching" "but there may be a word agriculture in the document"5. chooses the Q&A "Put farmers at heart of 'adoption revolution'" and reads "I'm not looking for citation from here I can just read to get the highlight, and would then go to search for publications"Barriers to use: none observed Validity/use: most of the things are credible boxes the publications	<pre>1. types in "eldis.org" and receives "No data received" message. "Sometimes if you are in a rush and you are looking for many documents it can discourage you" "I would just go to another portal" 2. tries reloading the page 3. after over 4 and a half minutes (1.13.55 to 1.19.08) minutes gives up Barriers to use: unable to load Validity/use: No access Downloading: No access Interactive functions: No access</pre>	Steps to find specific article "DevelopmentFinance Institutions and Infrastructure: Asystematic review of evidence for developmentadditionality":1. types "development+finance+institutions" intosimple search box2. first item in search resultsSteps to find information:1. scans left hand menu2. chooses Browse by Theme3. goes straight to Agriculture and AgriculturalInnovation4. reads titles in detail and considers each in turnas to whether it might be of interest (TZ5recognises the first project in the list)5. chooses the top project and reads objectives,then background. This is of interest to TZ5Barriers to use: none observedValidity/use: as aboveDownloading: none attemptedInteractive functions: not used



Downloading: none attempted	
Interactive functions: not used	



Knowledge of:	Participant – TZ6 Category 7	Information behaviour:
Scidev.net: subscribes newsletter because it has different types of information "I find it so informative". Looks for call for proposals Eldis.org: knows Eldis well, mentioned it during first half of session without prompting. Uses Eldis if looking for information that is not on Tanzania. TZ6 knows that Eldis is a bit richer. Visits maybe twice a month. Eldis helped them to set up tzonline R4D: none – seen it listed on DFID website but not used it Portal challenges: portals are targeted but Google has everything Use of information: Shared online: there is a subscription list for tzonline (30,000) and material is shared via this list. TZ6 is in charge of distributing information within their organisation Shared offline: The young generation get things online but the old generation still want someone to help to search, to choose keywords Saved: Saves and then prints Repurposed: reads policy documents to compare with fieldwork results and make recommendations Read: title, short abstract, then whole	 Participant – 120 Category 7 TZ6 works at a not-for-profit institution for research and policy analysis, supported by various organisations including UNDP and the Tanzanian government. TZ6 also writes assessment reports that make recommendations to the government. TZ6 also writes assessment reports that make recommendation plans (e.g. mkukuta), ministerial project manuals, Vision 2025 document and local and national government policies. TZ6 uses these to compare plans, policies and strategies with fieldwork findings, and to make recommendations to the government. All of the relevant documents are available on tzonline so does not use any other portal for this kind of work. This means that TZ6 does not have to go to each different ministerial site to get the documents. The latest policy documents are scanned and put online. Research documents may be added to tzonline or sometimes will link to another site. If the document is only available in hard copy, it is scanned and put online (with permission). They have a policy document for what to include on the portal and what not. Tzonline (launched in 2000): 30k mailing list users, 50% in Tanzania and 50% outside. 26k to 28k people visit tzonline per day. Tzonline provides one place for these documents rather than going to ministerial websites. It used to be that when policy needed to be revised, all the 	 Starting: Uses tzonline.org as main source of information. Searches within tzonline. If looking for a new topic, will use google, or will look at categories on portal, e.g. Edis, and if not there then an open search. Mostly uses google because it takes you straight to the article Chaining: from first page of results to the chosen source Browsing: none observed Differentiating: uses their own policy on downloading documents for tzonline. Other differentiating see below Monitoring: people send documents to put on tzonline. TZ6 also searches for documents online to add to or link to tzonline Extracting: no direct evidence of systematic searching, but TZ6 does look for materials for tzonline Processing: see repurposed on LHS Assessing validity/use: Institution, author Focuses on Tanzania Relevance Transferrable/applicable to Tanzania Date (wants things in the last 2 or 3 years)



source/document	necessary information was scattered, but now it's in one place (tzonline).
	TZ6 searches for topics others require, in which case goes to google. TZ6 also helps people to search, particularly the older generation. Finds that people are motivated to look for it. Young
	Most of the research is informing government policy, and most of the information we'd like to review is the policy so look at old policy and related policies. If writing a research proposal then have to take an international perspective, and decide which practices to include. In this case other portals like Eldis may be used.
	Example use of evidence:
	A report on a study to assess institutional capacity and mapping of best practices and development opportunities in one District in Tanzania. The study included focus groups and fieldwork to produce recommendations to the Government as to what should be done regarding poverty and environment. The study combined fieldwork with searching for evidence online and looking at policy documents.
	Uptake:
	"It has been easy because you can search anywhere, at home if you
	have access to internet before we used to go to the library and
	get the physical book ". Also easy to get information beyond Tanzania, up-to-date
	information, some people only do it online and



not hard copy. This think tank is invited to assess	
policies and write recommendations.	



Partic	ipant – TZ6 Category 7	part 2
Scidev.net	Eldis.org	R4D
Steps to find specific article "How to communicate in an interdisciplinary team": 1. says that they can search by author or by title 2. types 'jessica thompson december 2013' in search box 4. zero results "then I have to go back and take the title". Thinks would have got it first time in Google	Steps to find specific article "Strengthening of health systems for equity and development in Africa", Africa Health Strategy 2007-2015": 1. comments that they could search by health strategy or put the title 2. types 'Africa health strategy 2007-2015' into search box on LHS. Comments that putting in the title will result in a lot 2. 20227 results	Steps to find specific article "Development Finance Institutions and Infrastructure: A systematic review of evidence for development additionality": 1. types "development finance institutions and infrastructure" into simple search box 2. opens first item in search results to check it is the right one States to find informations
5. types now to communicate in an interdisciplinary team'	4. opens first item on first page to check it is the	1 reads home page information briefly
6. 7 results, scrolls down page and finds the article	right one	2. chooses 'Browse by Country' to see what
at number 3 "I don't know why it	Steps to find information:	information there is on Tanzania
<pre>didn't pick my first one (search)"</pre>	1. knows that Eldis has topics, and if the required	3. looks for 'Tanzania' then chooses 'United
Steps to find information:	topic is there then TZ6 would go to the topic menu	Republic of Tanzania'
1. scans the first page "it's more informative"	2. in this case, looking for youth policy, enters 'youth policy in africa' into the search box	 reads the options (projects, documents, both, all projects, current projects, completed projects)
 reads Noticeboard at bottom right of home page, looking for grants scrolls back to the top "they also put it 	 3. 30804 results "oh, this is good" 4. scans the first page "if there is a lot, I search it again" 	5. reads the first project summary on results page, says that she's not sure if it is a call for proposals or a finished project
by subject which makes it easier"	5. hits back button	6. reads the next project summary, is looking for
4. looks at 'Browse type' and then scrolls down the home page "I don't see where I can search put it more easy to see" 5. scrolls back to the top still looking for search	 6. changes search to 'youth policy in east Africa' 7. 31978 results "still this is a lot" 8. scans first page and then hits back button 9. modifies search to 'youth policy and Africa' 	things that are of interest 7. reads the project summary information but says "what is confusing - it could say a bit of what is this"
 4. 6. types 'tanzania' in search box because the topic menus will take them to generic information rather than for Tanzania 5. 7. gets 'unable to connect' message and checks if the problem is internet connection or 	10. 8930 results "so what I do is go to page one because what it does is it puts the most relevant up, I can go page one, page two". It puts the most relevant first by keywords	Barriers to use: doesn't recognise where the home page is, i.e. logo Validity/use: relevance Downloading: not used Interactive functions: not used
SciDev.Net		



8. goes back to home page and chooses Enterprise	11. scanning first page and reads titles.
Innovation tab – just to see if internet is working	12. chooses one that has employment and youth in
9. goes back to home page and enters Tanzania in	the title but doesn't open it
search box again. Looks to see if there is something	13. scans second page and mentions one but its
to link to tzonline or to pass on to a researcher.	date is 2005 "this is a bit too old"
Sometimes you get new things	14. mentions another on page 2 on South Africa
10. scrolls down results list reading titles	"so far I haven't got a document
11. points out a multimedia on Tanzanian farmer	that I feel is worth opening it
12. scrolls back to top of screen and types 'tanzania	and saving it"
and youth' in search box	15. hits back button until home page and changes
13. two results but neither has Tanzania in title	search to 'youth policy and Tanzania'
"so it means there is no	16. misreads the number of hits as 166, which is
information on Tanzania and youth"	the organisation tab
Barriers to use: portal is targeted but google has	17. scans titles on first page and considers some,
everything	based on title and based on year. Opens none of
Validity/use: Tanzania	them
Downloading: nothing downloaded	Barriers to use:
Interactive functions: newsletter is a good prompt	Validity/use: title for relevance. Seems to assume
to look at information. "I always find one	that everything on Eldis is worth considering.
or two things that are	Considers date
interesting"	Downloading: downloads as above, using tabs
	Interactive functions: not used



Knowledge of:	Participant – TZ7 Category 5/6	Information behaviour:
Scidev.net: has heard of it, but doesn't recognise it Eldis.org: "I have used it in the past but not for 10 years" R4D: none	TZ7 is a researcher based in a think tank. Holds a first degree in statistics and a qualification in finance. In current job, gets involved in a range of research areas and currently focuses on research in micro-finance. TZ7 performs research according to the requirements of	 tzonline is hosted by this think tank, but TZ7 did not enter the URL, they went to the think tank's website and linked to tzonline from there. relies on tzonline for Government policies and strategies. uses Google to find the portal even though theyk
Portal challenges:	(supply driven) and commissioned research (demand	now its name, e.g. microfinance gateway.
 No challenges observed when TZ7 uses Government portals and other known portals Requirement to pay for an article is a barrier "the connection is good but sometimes it is a 	driven). This think tank was consulted by the Government when they developed the Tanzanian Development Vision 2025. They also conducted a review of the Vision in 2010. TZ7 demonstrates knowledge of specific portals in the micro-finance area as well as relevant Government policies and strategies and how to access them. TZ7 uses	 Starting: goes to known portals, e.g. tzonline, Bank of Tanzania, microfinancegateway, National Bureau of statistics, Ministerial websites Chaining: uses google to get to known portals, then navigates those portals Browsing: will read on the internet to get ideas for research proposals, tries to link it to Tanzania; others
problem"	microfinancegateway (CGAP) to get to reports on	in the team are also tasked with identifying relevant literature for specific projects
Shared online : shares with colleagues in the team, using a mailing list.	research/data from others. TZ7 uses a combination of google searches and known portals/websites to obtain relevant evidence.	Differentiating: no bookmarking evident, googles to find known websites
"Every day someone is	Example use of evidence:	Monitoring: Government websites and colleagues
sharing"	Review of the National Micro-finance policy, using both	Extracting: specific extractions of data
Shared offline: no comments	primary and secondary studies. Minister of Finance was	Processing: see repurposed on LHS
Saved: on laptop for future reference	the client. They conducted a systematic literature review,	Assessing validity/use:
Repurposed : reads from several reports and then re-writes in own words. Where specific data is to be	and used different reports and finance-related policies from the ministry, for example the Co-operative Development policy and National ICT policy.	 Known and trusted sources, but not everything on a known source is necessarily trusted reads whole document to decide use
used from another publication then	Uptake:	 If uses a google search will look for who has
also learn writing style from others' articles Read: in detail	Agrees that there is more research evidence available online. "I get to know what others have done and mostly in the country and outside for regional studies". It has improved TZT's confidence "Of course" and the way	published it Date of reports – needs up-to-date



TZ7 interacts with others "especially for the
people that I meet who haven't been to
the portals, because my argument will
be different from theirs". "If you're in
a workshop then they ask you for
information and where to get it".





Barriers to use: none observed	Interactive functions: not used
Validity/use: no comment	
Downloading: none attempted	
Interactive functions: not used	



Knowledge of:	Participant – TZ8 Category 8	Information behaviour:	
Scidev.net: none "I haven't seen this, why?" Eldis.org: none "imagine - I haven't seen this before!" R4D: thinks has seen the link but does not appear to know it at all	TZ8 works for the Presidential Delivery Bureau delivering on the "Big Results Now" (BRN) programme. BRN was set up to ensure that priority projects are well- implemented so that they deliver the planned results. BRN was set up in response to a realisation that Tanzania was lagging behind other countries and despite	 TZ8 looks for recent articles and new items related to BRN and its projects TZ8 uses data from ministerial sites TZ8 uses sites they know about, such as ministerial sites and michuzi blog Starting: uses 'michuzi blog' – photographer of the President – to find out what is happening "if vou 	
 Portal challenges: Doesn't use research portals particularly, is registered to news sites and professional bodies, BBC Portals have a lot of information. "going through everything will distract my attention. I may need it later but I don't need it now" Google goes straight to what is wanted now 	good plans, priority projects had poor delivery mechanisms. The goal is for Tanzania to be a middle- income country before 2025. TZ8 is tasked with making sure BRN communicates to the public and to the implementers, supporting communication officers in the ministries to be proactive. "Now we are bringing in a new concept of communication". BRN has very few people who have worked for the government before, they come from private sector such as telecoms, banking, NGOs, activist groups. "We were criticising the government and now we have been given the opportunity to show by example". TZ8 looks for up-to-date information and news that is	 President - to find out what is happening "if you don't post for a week, everything will get lost". Also Facebook; google to find specific sites such as ministerial sites Chaining: from internal reports Browsing: skims headlines Differentiating: chooses items that are about BRN, does comparisons from multiple sources as part of job Monitoring: every day, through blogs, through media monitoring, through project reports, activist sites, professional bodies, news channels Extracting: combining/synthesising Processing: as communication officer much of what they find is passed on, or used to frame further 	
Shared online: uses email, Facebook, YouTube. Shares links, stories, media monitoring with all the BRN teams, with friends and public Shared offline: BRN prints less but shares a lot online Saved: saves and reads in the morning, also uses email as a filing system for some things	media monitoring, project reports, google and popular blogs, popular online platforms. TZ8 visits online sources every day for anything new about the government that needs a quick response. TZ8 looks for information for analysis and comparison or monitoring purposes, e.g. comparing examination results before BRN started (2 years ago) and now. TZ8 keeps track of what the President is doing and saying (through michuzi's blog) and shares this information with BRN staff, ministries and public at large, as appropriate. TZ8 shares a lot of information online, using YouTube. Facebook. and	 Assessing validity/use: Focuses on BRN, its activities, what is being said about the programme, and what the President is doing Wherever it comes from, whatever is of substance to BRN "we only use reliable websites" Recent (2015) articles and news 	



Repurposed: compares, copies and pastes to communicate on, uses various channels to send links. Also analyses data for monitoring and to use in reports or for videos etc Read: TZ8 reads online, sometimes using phone to read articles	WhatsApp groups to disseminate. Projects share weekly progress reports, TZ8 reads them, identifies interesting stories to follow up, maybe by phone or on WhatsApp. Tanzanian institutions that conduct research, e.g. REPOA, send BRN research as they are on the mailing list, sometimes TZ8 will visit their website. TZ8 becomes tired in the last 20 mins of the session	share we s interes WhatsAp search, the ma	ekly sting p. e.g. ailing
	Example use of evidence:		
	The annual report of the BRN programme, specifically some stories related to the projects being supported. Field visit involving interviews with people and photos, using contact information through Facebook. These stories focused on training farmers to use agricultural innovations. Another example is in education where the exam results were compared across the years and they investigated why schools were doing well or poorly. Produced a YouTube video for this topic.	e, specifie g suppor and pho book. Th e agricult on where ars and t Il or poo	cally rted. otos, hese tural they they orly.
	Uptake: I wouldn't be able to work without the internet because I have to find information and share it. Receiving and sharing of the information online has contributed to the success of BRN. For example in transport sectors we wouldn't know how the Tanzanian port is regarded, e.g. corruption, speed of handling, that the roads are being blocked by trucks.	rnet beca eceiving buted to sectors egarded, ds are b	ause and the we e.g.



Partic	part 2	
Scidev.net	Eldis.org	R4D
Steps to find specific article "Big data for	Steps to find specific article "Strengthening of	Steps to find specific article "Development
development: Facts and figures":	health systems for equity and development in	Finance Institutions and Infrastructure: A
1. types 'big data' in search box, only two words	Africa", Africa Health Strategy 2007-2015":	systematic review of evidence for development
because it will take time to type the whole title	1. types 'strengthening of health' into search box	additionality":
2. scrolls the first page of results reading the titles	on LHS	1. types 'development Finance institutions and
3. chooses an article on India's drugs war because	2. 15175 results	infrastructure' into simple search box
they have some issues with that	3. scrolls down first page of results reading titles	2. opens first item in search results into a new tab
4. reads the 'you might also like' pointers "it is	"how to search all. I can't see it	3. scrolls down the first page of search results to
so much interesting"	here"	see if there is anything else
5. types 'big data' in search box again	4. goes to search box above 'filter by topic' and	4. goes to document record for file found in step 2
6. scrolls down the first page looking for it and	adds 'systems for equity'	5. downloads PDF "so that when internet
points out articles on food, on coffee farmers "I	5. 21972 results	is gone, I can read it"
have a lot to read here"	6. points out that there are 21972 results	Steps to find information:
7. chooses an article on virtual reality	7. adds the rest of the document title in search box	1. goes to Google to enter the website address
8. scrolls through the images at top of article	8. " oh my " 28988 results	2. chooses website as first item on google results
9. comments that there's a lot of information here,	9. reads the titles on the first page of results and is	3. points out the logos DFID and UKaid at the top
and so many sectors, and so many people come	confused that it's not on the first page	4. types in 'open government' to simple search box
here "and so it seems it's a	Steps to find information:	5. scans the first few items of the results and
reliable source"	It takes time to open so we move on to R4D and	chooses the third item on Transparency
10. scrolls down the article and looks at the	then Scidev.net	"because to me transparency is
comments from others	1. goes straight to 'share' icon and looks at the list	key"
11. decides to sign up and enters contact details	of social media	6. also identifies the fourth in the list as of interest
"I'm sure they do research on who	2. goes to Regions and Countries, chooses Tanzania	Barriers to use: lots of information that may be
subscribes. It's important to know	3. scrolls the Tanzania information and gets to the	distracting from what doing now
who has subscribed	articles	Validity/use: picks up on key words, particularly
Change to find information.	4. scrolls down the article list and reads the titles	transparency in government
Steps to find information:	5. opens article on TANESCO, which is 'under' BRN	Downloading: no problem
1. goes to Google to enter the website address	6. reads the abstract article	Interactive functions: not used



2. chooses website as first item on google results	7. chooses the Tanzania link on RHS to go back to
3. goes straight to 'Governance' menu, then	country information
chooses 'Sustainability' because TZ8 is concerned	8. chooses 'governance' from LHS menu list
that BRN ends soon. How can it be sustainable?	9. scrolls down the articles, reading the titles "I
4. scrolls down the results, reads titles, saying that	am looking fro an interesting
several are interesting but it is not what they need	topic"
5. sees that there are 176 results for sustainability	10. goes to page 2 "I miss really
6. scrolls again down the list of results "the information provided here will be	<pre>important articles because of poor titles"</pre>
food for everybody"	11. looks for 2015 articles and says that there
7. chooses one article on sustainability science	should be somewhere to navigate to get to 2015.
"what I am looking for is to learn	Comments that there is a lot come up in the search
how we can make BRN sustainable	and it will take a long time to go through
but others may be interested in	12. goes back to home page and looks for new
how richer nations are using	information in the carousel at the top
technology in sustainability"	13. goes down page to 'other topics'
8. chooses 'Communication' menu and then	Barriers to use: there is a lot of information and
'Influencing'	TZ8 finds it difficult to navigate and to find recent
9. chooses an article on south-south influence and	articles. Behaviour becomes less focused
scans it, picking out the quotations "it's very	Validity/use: title for relevance. Seems to assume
user friendly"	that everything on Eldis is worth considering.
10. goes back to the top menus and scans them	Downloading: downloads as above, using tabs
Barriers to use: became distracted from what we	Interactive functions: not used
were asking and what TZ8 was looking for	
(comments on this as quoted above)	
Validity/use: interest and relevance to BRN	
Downloading: downloads into new tab and keeps	
for later reading and maybe saving	
Interactive functions: points out the social media	
links on LHS and says that this is good because TZ8	
likes to share	



Knowledge of:	Participant – TZ9 Category 5	Information behaviour:
Scidev.net:mistookitforsciencedirectEldis.org:recognised the nameR4D:not known	Works in a research institute. TZ9's responsibility is in growth and development – economic growth and how that impacts livelihoods of the people: agriculture, constraints to growth and how that can be transformed to accelerate inclusive growth, national resources we have and how those can be used to accelerate economic	Not tested as TZ9 did not have sufficient time available to take part in the whole study. Session focused on the process of how research evidence is used to influence policy, programmes and practice.
Portal challenges:	growth, employment and how that relates to household income	Assessing validity/use:
Local websites don't include data from other countries, so you need to look at international websites for comparison data sets.	and so on. TZ9 does a combination of looking for others' research and conducting primary research. "The web facilitates our work by providing the relevant literature to	• Source, e.g. World Bank, National Bureau of Statistics, UNDP, IMF etc. It depends on the data you want as to where you will go, so each source has its own definitions and
Use of information:	get a theoretical framework to help inform	specialisms
 Shared online: not commented on Shared offline: discussion at technical meetings and briefings, and hard copy Saved: not commented on 	our work." TZ9 accesses datasets from the National Bureau of Statistics and other government departments and agencies for analytical purposes, and those from World Bank, UNDP, etc. Having online access is a positive thing because if you want to access international data to compare statistics across countries it is easier.	 Author and institutional affiliation, publisher who is known Open access publications preferred but will subscribe if the work is relevant and credible Uptake:
Repurposed: to inform own work, provide theoretical framework Read: yes	The negatives include if people publish data that is incorrect or inconsistent but as long as the data is credible, it's a good thing and it causes dialogue between people on techniques as well as data. A negative is that we don't go and speak to other people, discussion is a good thing but with online access TZ9 doesn't have to move from the desk. Without it, TZ9 would have to take evidence/data from the hard copy and compile it, but now it can be ready to use in excel format which is easier. " Overall the power of the technology and the benefit it provides far outweighs the costs and disadvantages ". Access to information is empowering and helps in promoting a more informed dialogue. We used to be able to talk about	Availability of evidence on the internet allows work to be done more efficiently and hence to complete more work. "Now it's online I don't have to move around libraries to look for literature it definitely makes life a bit easier and makes us work more efficiently, produce more output in a shorter period of time."



	only Tanzania but many countries because we can get comparable
	data, e.g. generic statistics such as GNP, population, per capita
	health spending, age structure are all easily accessible. If we are
	able to do many more pieces of work than could have been done
	10 years ago, it also means that we can engage in many more
	dialogues than before "Information is power so
	whoever has privilege to information access
	would definitely be more confident in what
	they are saying".
	In some cases our research findings go straight into plans and
	strategies. An example is a recent effort to inform the
	development of industrial policy, because of dramatic differential
	in productivity between Tanzania and Vietnam e.g. for cashew nut
	and coffee, which was almost the same in 1970s and is now very
	different. In Vietnam the government's policy was to proactively
	promote good farming practices. The Tanzanian government has
	adopted some of these in its recent initiatives. That happened
	through policy and forums but also direct engagement by TZ9 and
	colleagues with those making the policy, specifically they make
	available their research papers, policymakers ask questions and
	they provide answers and changes are taken on board.
	T79 is a member of a technical team, where there is direct
	application of research findings into policy making The team bas
	working sessions where they take all the materials they have
	literature data eventhing They cread the week reading
	discussing making tables trends then coming out with
	recommondations for what needs to go into the plan. These
	meetings (a week long) are date and knowledge intervice. Using
	interings (a week long) are data and knowledge-intensive. Having
	access to data and interature is important. "If you want to
	make some cross-country correlations between
	supply every data is there . food
	production productivity yield rates by grop
	type, for any country, prices every type of
	- Jype, Lot any Councily, Princes, Cype of



data".	
Definitions vary between different statistic data sets, This impacts how the data can be used and we are very careful to see what definitions have been used, and the impact that has. Sometimes we use both definitions. In Tanzania, management information systems are not so robust, which is why we complement our work with primary data, depending on what is the research question we want to ask. Reliability of the evidence/data depends on the nature of the data, and we wouldn't go to a website that is not credible. "We know which ones are credible by their very nature. So I am confident when I quote the source."	



Knowledge of:	Participant–TZ10 Category	6	Information behaviour:
Scidev.net: None Eldis.org: None	TZ10 holds an MPH degree from the United Kingdom and is a de	evelopment	Starting: Starts searching by signing in into Gmail account.
R4D: None	communication strategy. Looks for online information to prepare repo	orts on the	Chaining: No evidence.
 Portal challenges: Poor internet connectivity. Eldis and to some extent R4D responded slowly. 	 project. Signs in to Gmail account and then types the information required into box through the Gmail account. Types in the phrase "communication strategy" into the search box account. Search results open on a different tab. Clicks on the first title of page of the search result. Has no reason for searching through Gmail account. 	the search of Gmail on the first	Browsing: Endeavours to read all titles of the search results so as to ascertain the most relevant article. For instance in search for the specific articles TZ10 took time to read all the title on the first page of the search results.
Use of information: Shared online: Share information with colleagues through email. Shared offline: Shares hard copies of document	Reads the content of the article thoroughly to get ideas for the consult. TZ10 indicates that "what I want to get from this docu the "specificity"". In order to confirm what is already kn reads through every document downloaded. After that TZ10 copies a Microsoft Word and modifies it to suit what is required. TZ10 also ack the source. Save the article on a removable disk for future use.	ancy work. ment is own, TZ10 article onto anowledges	Differentiating: Discards irrelevant articles. TZ10 sometimes opens new online research articles on a new page. Also shades the most relevant section of any article copied in order to remind TZ10 that the article was copied online.
with colleagues. Saved: Only relevant articles.	Relies on basic knowledge and experience in ascertaining the vac credibility of an online article. Discards irrelevant information and only relevant ones.	alidity and v keeps the	Monitoring: No evidence.Extracting: Copies sections of relevant.Processing: Modifies the copied article
Repurposed:Rewritesonline articles in a bookand later transfers intoMicrosoft word.Read:Prints and readssaved online articles.	Example use of evidence: Communication strategy in the health sector. Uptake: Rate of learning has increased, mainly because there is a log information on the internet that one can use for meaningful work.	t of useful	 to suit desired output. Assessing validity/use: Does not have any specific criteria. Only relies on experience and knowledge.



Par	part 2	
Scidev.net	Eldis.org	R4D
Steps to find specific article:	Steps to find specific article:	Steps to find specific article:
1. Goes back to the home page.	1. In finding specific article, TZ10 clicks on the heading	1. Type the full title of the specific article into the
Types specific article into the search box of the portal. Finds 16 search results.	"global health" on the resource guide column of the portal. Finds 0 search results.	search box. 2. However, the number of characters in the title
2. Doesn't recognise where the search results are since all the search results are complemented with picture illustration.	2. Goes to the home page of the portal. Types the full title of the specific article into the search box of the portal.	was more than what the search box takes.3. Reads each article title on the first page of the search results.
3. Finds the article in the middle of the search result.	3. Carefully reads the title of each article on the first page of the search results.	4. The second title gives the result for the specific article.
Steps to find information:	4. Finds the specific article but the wording of the title	Steps to find information:
1. Type the URL of SciDev.Net into the find bar	that they are the same article. Clicks on the title.	1. Reads the introductory part of the portal thoroughly to ascertain what the portal is about
2 T710 tries to find out what the nortal is	Steps to find information:	Types the phrase "maternal newborn child" into
about by carefully reading the background information on the portal.	1. Types the URL of the portal into the find bar. In search for online evidence related to "communication	the search box of R4D.2. Reads all the titles of research evidences that
3. Asks the question "what are the issues here?"	articles and headings on the home page of the portal.	appear on the home page of the portal. Finds no relevant article.
4. Tries to look for a general article.	3. Indicates that reading the online article in detail is a habit. Finds no information.	3. Goes back to the home page to start searching for the specific article.
5. Moves the cursor on each title and reads the various title on the home page carefully	4. Finds no result on the home page. Decides to look for information on medicine.	Barriers to use: Portal was very slow to upload.
and at the same time, scrolls down slowly.	5. Clicks on the heading "health" and decides to look	Validity/use: No specific criteria, relies on
6. Find no relevant article.	for articles related to communication. Finds a relevant	credibility of the specific article.
Barriers to use: Portal was slow to load.	article titled "designing a social and behaviour change	Downloading: Downloads specific article.
Validity/use: relies on experience Downloading: downloads specific article.	into Microsoft word and then saves it.	Interactive functions: No impact.
Interactive functions: No evidence realised.	6. Unable to realise that the full article is attached to the document. Later on realises that the full article is	



attached. Clicks on the full article and opens it on a different tab.	
Barriers to use: Portal was slow in responding.	
Validity/use: No specific criteria	
Interactive functions: No evidence.	



Knowledge of:	Participant – TZ11	Category 5/7	Information behaviour:
Scidev.net: not tested Eldis.org: not tested R4D: not tested	TZ11 works in a think tank whose research policy around science, technology and inno is use-oriented. TZ11 and colleagues us	th is focused on influencing vation, hence their research e online portals to access	Not tested as TZ11 did not have sufficient time available to take part in the whole study. Session focused on the process of how research evidence can be used to
Portal challenges: None observed or mentioned.	Globelics conference website and SPRU at is used to inform their own studies.	Sussex University. This work	influence policy, programmes and practice.
Use of information: Shared online: their own research appears on their own website.	From their own experience, how policymal (which they call policy linkage) is a majo problematic one. They have a researc	kers access online resources r area of work and a very h department but also a	Assessing validity/use: Source, e.g. relevant conference, university etc.
internally and externally Shared offline: hard copies of their	communication department. "We have that is not being used". So ex	a lot of research tra work is needed to make	Uptake: Availability of evidence on the
own policy briefs given to policymakers and other stakeholders	sure the research is being used. They have a communication strategy for different stakeholders, both public and private sectors. The research is summarised in order to communicate it to policymakers. To	a communication strategy and private sectors. The nicate it to policymakers. To	internet allows work to be done more quickly. Although TZ11 has a good
Saved: yes Repurposed: to inform their own	bring the research to their attention, you them, invite them to take part in the rese	need to talk to them, entice arch itself, work with them	collection of books, "Now when I'm writing a paper I rarely
studies Read: yes	and once finished call them up to tell prepare a policy brief, and aggressively sell is no demand for research their policymaking."	once finished call them up to tell them about the research, are a policy brief, and aggressively sell the ideas to them. "There no demand for research outputs to use in ir policymaking "	what is current is online"
	TZ11 visits the government offices a lot ar do you get the objectives to form a policy may be based on a directive from the mir "It's rare to hear that they	nd talks to them about how ? TZ11 has been told that it hister or from the president have been reading	
	to understand the underly information has to be pushed out there, to	ing problem ." The be sold to policy makers.	
	Influencing policy making is a process, Innovation requires a process, and in Tanza this now. Whenever the government is o and technology they call this think tank, effort to get to that situation. Innovation	not just an end result. ania the policy makers know oing something on science but it has taken time and needs to be supported by a	



system, and this has been reviewed for Tanzania. A new policy on innovation is being put in place because of this review.	
An example where their research influenced policy is a project on the role of vocational education, where they wanted to know whether this training increased productivity in the small state enterprises. The research found that it was not, and it identified problems concerning the design of the curricula. Those involved in the education and the policy were invited to see the results and that then influenced what was done. "It is a process that is so painful, you've got to be persistent when it happens it's very satisfying". It was successful because we took the evidence to them, and were persistent.	
Science, technology and innovation is not a popular research area in Africa.	



Table 39: Tanzania Research Diary Summary Table

Partici pant	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
TZ 01	find/retriev e	Found: used online search engine Retrieved: repeated previous online search/ had stored digitally/ remembered	Found: received automate d message	Х	x [no response recorded for this question]	Found: used online search engine Retrieved: had stored digitally	X	X	x [no response recorded for this question]	x [no response recorded for this question]
	why source	I needed to be sure if the same information is reflected in other sources. But I could not. Also the source is assumed to be credible, at least for now in the country	x [no response recorded for this question]	X	x [no response recorded for this question]	I wanted to substantiate my article and advice/ recommendations with what other sources are saying about similar issue	x	X	x [no response recorded for this question]	x [no response recorded for this question]
	validity	Information from government website (Parliament and Ministries) could be compared with other sources, such	x [no response recorded for this question]	x	x [no response recorded for this question]	It was a video and I remember to have heard the speech but did not have the full Speech by the President	x	x	x [no response recorded for this question]	x [no response recorded for this question]


Partici pant	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
		as think tanks and universities whether they bear same data. Also the level of details differ								
	use	shared online/ saved/ read	o [did not do anything with info today]	X	o [did not do anything with info today]	shared online/ saved/ read/ repurposed/ other: writing an article for local newspaper	x	x	o [did not do anything with info today]	o [did not do anything with info today]
	type/purpo se	I accessed information on National Budget for agricultural sector (various sources). I digested it and some of these documents were shared with staff	l was attending a meeting, and had limited time to visit the website	X	x [no response recorded for this question]	This was the President's inauguration speech for the 11th Parliament in Tanzania which was made on 20th November in the parliament. The President Hon JP Magufuli underscored the importance of agricultural industrialization. I used his speech to write an article using Jim FitzPatrick/ANSAF (2013) research report, where it was found out that Tanzania losses US\$ 110 million annually by exporting Cashew in raw form to India.	X	X	x [no response recorded for this question]	x [no response recorded for this question]
	influence			x			x	x		
	research	YES: It is	NO	х	NO	[YES ????]: I used	х	х	x [no response recorded	x [no



Partici pant	Evidence	Dailv01	Dailv02	Dailv03	Dailv04	Dailv05	Dailv06	Dailv07	Dailv08	Dailv09
	evidence	about ANSAF research on budget allocation, in relation to potential and poverty levels across the regions, and also viewed				the president's speech signifying the commitment to develop industries and linked with the previous research findings and recommendations			for this question]	response recorded for this question]
	DFID portals	not used today ???	not used today	x	not used today	not used today	x	x	x [no response recorded for this question]	x [no response recorded for this question]
TZ5	find/retriev e	Found: used online search engine	0	Found: used online search engine	Found: used online search engine/ other website: www.escjournals. net/UAE	Found: SciDev.Net	Found: R4D	Found: R4D	Found: used other website:india.foodsecurit yportal.org	Retrieved: had stored digitally
	why source	I was very much interested in the subject as an additional information I had to search for it.	0	I used the source because I found it valid, reliable and accessible	I used the source because I trust the content within.	This source is rich in information of my interest.	This source is most trusted to me because most of the contents posted are of high research quality, reliable and valid.	This source is full of credible information for researchers like me.	Because I was looking for the information which is credible.	This source is full of informatio n of my interest.
	validity	The information was credible	0	lt contained the data	Scientific methodology used in the paper, it is	I trust the http://www.scidev.ne t/global because I	The informati on are	The information posted in	The portal is reputable in producing information which are acceptable in	Publicatio ns within the source



Partici pant	Evidence	Daily01	Dailv02	Dailv03	Daily04	Dailv05	Dailv06	Dailv07	Dailv08	Dailv09
		to me because was published by the reputable journal with World known Author.		which were researche d under scientific methods.	found in the peer reviewed journal.	have been receiving the credible ideas from this web such as farming systems of various countries and adoption level of smallholder farmers.	well research ed with credible data coupled with cases, plus the scientific argumen ts on technolo gy transfer.	this portal is of high quality, the information is reviewed before being posted, and it is a world wide accepted portal in publishing research papers/repo rts.	the world of research.	are well researche d and peer reviewed.
	use	read	0	saved/ repurpose d/	shared offline	read	repurpos ed	shared offline/ saved/ repurposed	read	shared offline/ saved/ repurpose d
	type/purpo se	I made notes on the adoption of agricultural innovations for smallholder farmers.	Ο	I made notes on the need of technolog y transfer for socio- economic developm ent.	I made notes on use of modern agricultural technologies.	I conceptualize the ideas in the content.	I made some notes from the informati on I serached	I shared the data to justify the importance of using research in fast-tracking economic developmen t.	I made notes about rural transformation.	I made some notes on the need to transform rural livelihood to my colleague s.
	influence		0							
	research evidence	YES: Improved maize varieties or hybrids are finding their way to smallholder farmers in sub-Saharan	Ο	Yes: Technolog y transfer by FDIs through vertical linkage with buyers and	YES: Even distribution of resources and services to ensure balanced agricultural development	YES: The foundation (Bill & Melinda Gates Foundation) has huge global influence in different sectors	YES: Technolo gy transfer and sustaina ble rural develop ment	Yes: Many inventions have had positive impacts on the poor	YES: There is an emerging consensus that the well-being of rural households improve with the blending of farm activities with non-farm economic activities	Yes: The fact that agriculture continues to employ a large proportion of the total labour force



Partici	Evidence									
pant	Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
		Africa		suppliers						(about 74%)
	DFID portals	not used today	0	not used today	not used today	SciDev.Net	R4D	R4D	not used today	not used today
TZ6	find/retriev e	Found: used online search engine (google) Retrieved: other: searched using key word	0	0	Found: used different type of website: google and UN websites Retrieved: repeated previous search online	X	x	Found: used online search engine/ used online RPP	0	x
	why source	Since it was a broader topic, google search was perfect, it was able to give me more relevant link	0	0	`i used google because, It direct you other links with relevant information	x	x	I used the source because, I was sure of getting the information I needed, I used Tanzania Online database. www.tzonlin e.org	0	x
	validity	I just wanted general information/k nowledge all information was treated the same	0	0	I used Information from Unated Nations, which is a trusted webside	X	x	Tanzania Online is a national database with information which have passed through a check list procedure for validity	0	x
	use	saved/ read	0	0	repurpose	x	x	shared offline/	0	x



Partici pant	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
								repurposed		
	type/purpo se	I seached information on ICT4D and innovation and saved it, I will use it on my work this week	NOT APPLICA BLE	Ο	I research information on how to localize SDGs,, country and global examples. The information will be part of national communication strategy for SDGs lam worling on	x	x	l wrote a project report on capacity for Developme nt Results Based	I did not use any information , I was attending meeting	x
	influence		0	0		x	х		0	х
	research info	NO	0	0	YES The information obtained today will inform/ or give input the national SDGs communication strategy	x	x	Yes The information was on impact on different Innovations on Agriculture and Fisheries sector this was a policy document published by the Government	0	x
	DFID portals	not used today	0	0	not used today	x	x	not used today	0	x
TZ7	find/retriev e	Found: received in email from person	Retrieved: had stored digitally	0	X	Found: online RPP: R4D	х	x	x	x
	why source	This was part of my activities today. To read through	Was called by funders to defend research	NA	x	This was part of literature review exercise for poverty study in Tanzania	X	x	x	x



Partici pant	Evidence Used	Dailv01	Dailv02	Dailv03	Dailv04	Dailv05	Dailv06	Dailv07	Dailv08	Dailv09
		the report and fill in any technical gaps then submit to the client	proposal							
	validity	This was a report that we wrote and shared with technical team for comments. I received it for a final eye check before we submit to the client	Reliable sources eg from governme nt statistics dept	NA	x	Very reliable	X	x	x	x
	use	read	other: in defending proposal	0	x	saved	X	х	x	x
	type/purpo se	Read through a report on the Mining policies/strate gies and programmes in Tanzania	Was looking for income statistics for Tanzania population	NA	x	Information that focused on poverty dynamics from R4D site. Was a part of literature review on a study on sustained pathways to poverty in Tanzania	x	x	x	x
	influence			0	x		х	х	х	х
	research evidence	NO	NO	Ο	x	YES: Source: R4D website. The research was done by ODI, ESRF and REPOA back in 2012	x	x	x	x
	DFID portals	not used today	not used today	0	x	R4D	x	x	x	x
T74	6	used or line								
124	inid/retriev	used online	X	U	X	X	X	X	X	X



Partici pant	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
	e	search engine/ email from a person/ repeated previous search online								
	why source	I already know the website link.	x	0	x	X	x	х	x	x
	validity	I know the website	х	0	Х	X	х	x	x	x
	use	read it	х	0	х	х	х	х	х	x
	type/purpo se	I read the information about the Commitment to Equity (CEQ), especially the new grant by Bill and Melinda Gate's Foundation and the goals of the grant of reducing inequality in developing countries. I read it because I am involved in a similar study with CEQ from two years ago, of which we are ready to disseminate	x	0	X	X	X	X	x	X





Partici pant	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
		an email about the new CEW grant and decided to go and read it from the CEQ website.								
	influence									
	research evidence	NO	х	0	X	x	x	x	x	x
	DFID portals	not used today	X	0	X	Х	x	x	x	X



B.3.3 Nigeria User Profiles and Diary entries

Table 40 below summarises our Nigerian participants and the data collected from them. This section contains the user profiles generated from 8 of those participants and a summary of the daily journal entries.

Table 40: Summary of Nigerian Participants and data collected

Participant	Gender	Category	Sector	Data collected
NIG1	М	Development consultant	Education	P, CI, DP, D4
NIG2	М	Development consultant	Water and Sanitation	CI, DP
NIG3	Μ	Media professional	Media	P, CI, DP, D4
NIG4	Μ	Academic/Researcher	Education	P, CI, DP, D10
NIG5	F	Media professional	Media	CI, DP
NIG6	М	Media professional	Media	CI, DP
NIG7	F	Knowledge broker/intermediary for policy makers	Education	CI, DP, D2
NIG8	Μ	Civil/Public Servant	Education	P, CI, DP, D10
NIG9	Μ	Development consultant		CI, DP, D2
NIG10	F	Development consultant	Gender and Equality	CI, DP
NIG11	Μ	Media Professional	Media	CI, DP
NIG12	Μ	Development worker in civil society	Health	P, CI, DP, D8
NIG13	М	Media Professional	Media	Р
NIG14	Μ	Media Professional	Media	Р
NIG15	М	Media Professional	Media	Р
NIG16	М	Development worker in civil society	Health	Р
16 participants ove	rall	12 complete face-to-face sessions	4 comple	ete diaries

* P = phone interview, CI = contextual inquiry (first half of f2f session), DP = discussion of portals (second half of f2f session) D= Diary, Dx = x number of journal entries returned



Kanadan afa		
Knowledge of:	Participant–NIG1 Category 6	Information benaviour:
Scidev.net: None	NIG1 is currently a development consultant and currently working	• Starts searching by typing keywords of an article into Google search engine.
Eldis.org: None	on a DFID funded project which seeks to improve the quality of	 Easures on the date and how well sited the
R4D: None	education in private schools, especially those serving children	article is.
Portal challenges:	from low-income households. As part of the project, NIG1 has	• Prefers reading the brief summary below
 Navigating through the portals can be very confusing. 	Uses the internet very often for research work. NIG1 searched for	the titles of the portal.
• For instance it was difficult to find	online information to write the above article. In demonstrating how	summary or introductory part first and
the topic "education" on	the online evidence was searched for, NG1 types key search terms.	then saves them if relevant.
Scidev.ivet.	NIG1 looks for how often the online article has been cited, on the	starting: Starts online search with Google
• Search results on Eldis were mixed	that the article is well cited indicates that "this article is	search engine.
Use of information:	gooda lot of people have cited it".	Chaining: Subscribes for newsletters from
	Unable to find the article date of publiching but realizes that the	Journal (e.g. SSRJ and other internet portals.
Shared online: Shares online research	article is a recent one since most of the references are dated	Browsing: Scrolls up and down and reads the
with coneague.	between 2015 and 2011. Reads the first few sentences of the	various titles cursorily before deciding on the
Shared offline: No	article hurriedly. Indicates that there are very relevant keyword in	most relevant article.
Saved: Yes, saves only relevant	the summary which means that the article is a relevant one.	Differentiating: Makes sure that no
articles.	Downloads the article and then saves it. NIG1 prefers to read the	unwanted article is copied or saved. Unly
Repurposed: Rewrites article in own	article thoroughly later. After reading, NIG1 copies the relevant	instances prints the most relevant article
words and ensures that it is original.	sections and indicates that, will re-write it later. Records the	Monitoring: Subscribes to portals and
Also shades the most relevant article.	source. For example the website and author's name. Likes to	journals in order to be informed about the
Read: Reads the summary/	subscribe to portals and other online sources (e.g. the Social	most recent and relevant information on a
background section first and then	Science Research Journal (SSRJ)) so as to be receiving very current	subject area.
later reads it more thoroughly.	mormation. Also prefers open access portais than those that are	Extracting: Shades and highlights the most
		relevant section of an online research.
	Example those of University of Lagos website.	Processing: Copies, rewrites, saves the most



Example use of evidence: NIG1 has written an unpublished article regarding effective teaching.	relevant article. Assessing validity/use:
Uptake:	 Looks out for the Date, author; and
NIG1 indicates that internet enables working across different	 How well cited the online article is.
research areas. Can discuss issues related to governance though	
focuses more on education related issues. NIG1 explains that	
because NIG1 is able to find information very easily online. Has	
made demand for more robust research evidence higher.	



Participant–NIG1 Category 6 part 2								
Scidev.net	Eldis.org	R4D						
Steps to find specific article:	Steps to find specific article:	Steps to find specific article:						
1. Types the full title of the specific article into the search box of the article. Indicates that the search	1. Moves the cursor on the menu. Clicks on the search box.	1. Navigates to R4D home page and then types the full title of the specific article.						
results are also colourful.	2. Types the specific article into the search box.	2. Finds the specific article on the first page.						
2. Asks whether the keyword below each research title is of significant importance for looking for the specific article. Clicks on "data"—one of the keywords.	3. Finds the specific article on the first page of the portal. Clicks and download the portal.	3. Clicks and downloads it. Reads the title again to ensure that it is actually the article						
3. Scrolls up and down the first page. Unable to find the	4. Indicates that the portal is really slow but	required.						
specific article on the first page.		Steps to find information:						
4. Then moves to the second page. Finds the specific	Steps to find information:	1. Type the URL of the portal into Google.						
article. Clicks on it. Likes the speed read section of the article, but indicates that information on the portal cannot be used if there is no internet since no article on it can be downloaded.	 Type the URL of Eldis into Google search engine. Finds the portal and wonders what the portal is about. Scrolls up and down twice to browse the 	2. Scrolls down and then quickly types two keywords of the prepared article "Classroom observation"—into the search box of the portal.						
Steps to find information:	content of the portal.	3. Gets 318 results. Becomes impressed that						
 Types the URL of SciDev.Net into the find bar. Finds the portal very lively and colourful. Moves the cursor on the menus. Clicks on each topic 	3. Looks for the topic "education" on the menu but unable to find it. Indicates that this portal is among the few I have seen with education not on the main bar [main menu].	the search results are many.4. Identifies two relevant articles on the first page. Downloads them and quickly saves them. Signs up to the portal.						
on the menu. Realises that "education" is under the heading "communication". Gets confused and asks whether there is a reason why "education" is under "communication".	4. Scrolls to the bottom and finds "education" at the bottom section of the portal. Indicates that "I did not expect this here". Clicks on it.	Barriers to use: Finds it difficult to navigate to the home page. Validity/use: Because it is a DFID funded						
 Scrolls up and down the front page to see if there is any relevant article. Indicates that the portal is more science and innovation biased and does not focus on area of 	5. Like the content since it is consistent with research area. Download the fourth and seventh articles on the home page of the portal. Scrolls down the two articles.	portal. Downloading: Download specific article Interactive functions: Signs up for the portal.						
research. 5. Indicates that there is no attachment and the	6. Saves the two articles after cursorily scrolling down the table of content of the two articles.							



referencing. As such cannot be used for any serious job. 6. Finds it difficult to navigate to the home page.	7. Writes the URL in a book. Indicates that the portal contains a lot of "reliable and relevant detailed" information	
 Barriers to use: Unable to download an article. Unable to navigate to the home page. Validity/use: Believes it is a DFID portal but the portal cannot be used for academic purposes. Downloading: Unable to download articles on the portal Interactive functions: No evidence. 	Barriers to use: Slow to respond. Validity/use: Indicates that portal contains a lot of articles from "top class" authors. Downloading: Download general article. Interactive functions: Subscribes to the portal.	



Knowledge of:	Participant–NIG 2	Category 6	Information behaviour:
Scidev.net: None Eldis.org: Yes, have search for online information on it for an agriculture project before. R4D: None Portal challenges: Finds it difficult to go back to the	Participant–NIG 2 NIG 2 is a development consultant in Nigeria, funded programme that provides support to 1 resources more efficiently and effectively. NIG 2 uses Google for online research evidence have any favourite website. This is because Goog relevant document or website for NIG 2. For instance, NIG 2 types the phrase results base Google search engine. Reads aloud the various t	Category 6 working on a DFID help Nigeria use its search and does not gle is able to link the ed management into titles that appear on	Starting: Uses Google for general search.Chaining: clicks shared websites of a relevant article on Twitter and WhatsApp on phone.Browsing: Clicks each page of the search results and also scrolls carefully to find research evidence.Differentiating:Downloads relevant information on tablet or phone to read;
home page and also locate the site map.	the first page of search results. Clicks on the seco results. Gets the document from the United N Group website.	nd title of the search ations Development	especially when travelling. Discards irrelevant articles by closing or deleting them.
Use of information: Shared online: shares the website link of the article with colleagues	Reads the abstract of the document and finds it article in a folder. Clicks on subsequent pages to find more relevant	relevant. Saves the research evidence.	Extracting: Reads online research evidence and the makes paper notes.
via email. Also uses WhatsApp or Twitter on mobile phone /or tablet for sharing.	Reads through relevant documents and make pape NIG 2 reads the abstract or executive summary read the entire document. Downloads and occ	per notes. y before deciding to casionally prints the	Processing: Saves relevant documents. Assessing validity/use:
Shared offline: Shares paper flyers and Magazines with colleagues. Saved: Saves relevant online	document. Shares relevant website links of research evide through emails. Twitter and WhatsApp.	nce with colleagues	 Date of publication Reliability of author Source of information
resources in named folders. For instance, NIG 2 has created a folder for the programme.	Also uses Twitter and WhatsApp on phone to sh research evidence. Also follow bloggers for useful NIG 2 prefers not to focus on scholarly articles th	nare website links to I research evidence. nat usually appear as	
Repurposed: After reading relevant articles online, NIG 2 makes note on computer for ongoing work.	the first title on the first page of the search rest they are often for sale and are also too technical. NIG 2 determines the validity of the source	of online research	
Read: Reads online using tablet or phone.	evidence by ascertaining how recognised internationally. Example NIG 2 explains that "I international think thanks like UNDG".	the sources are most rely on UNDP, ODI,	

Also consider the date and the credibility of the author to determine



the validity of the article.
Example of research evidence: NIG 2 is developing a document on Performance Management Systems.
Uptake:
Information access has become relatively easier as a result of improvement in the ICT infrastructure in Nigeria.



Participant–NIG 2 Category 6 part 2				
Scidev.net	Eldis.org	R4D		
Steps to find specific article:	Steps to find specific article:	Steps to find specific article:		
1. Finds it difficult and confusing navigating to the home	1. Types the title of the specific article (i.e.	1. NIG 2 finds the specific article by typing it (i.e.		
page. Tries to look for site map for the portal to see if it	three tools to unlock finance for land-use	Using climate information to achieve long term		
will help but to no avail.	mitigation and adaptation) into the search	development objectives for African ports) in		
2. Scrolls up and down to see if the topic "articles" can be	box of Eldis.	the search box of r4D.		
located on the home page of the portal but was not	2. Likes the way the content of the specific	2. Scrolls up and down three times and then		
successful. Click the topic "communication" on the home	article is presented. Indicates that "I	finds the specific article as the fifth title.		
page to find specific article but unable to find any	like the summary	3. Becomes surprised that the specific article is		
information related to specific article.	providedit helps you to	not the first title. Also realises that the specific		
3. Type the full title of the specific article (NIG 2 misspells	decide whether to download	article automatically opens on a different tab.		
some of the words in the process of typing) into the	The article of not".	4. Likes the presentation. Indicates that this		
search box of the portal and gets 0 results.	5. Downloads that specific article.	provides you open free access, the author, year		
4. Types the full title of the article into Google search	Stops to find information:	of publication and the link to the main source of		
engine. NIG 2 finds the specific article as the first title of	1 Scrolls up and down and the types the	the document. Also presented in different forms		
the first page of the search result.	nhrase "agric information" in the search	in word, PDF, and there is the option for		
5. Clicks on the citie and gets to <u>www.scidev.net</u> .	hox of Fldis	printing.		
5. Clicks on the article and downloads it.	2. Scrolls down the first page and realises	Steps to find information:		
7. Find the presentation of the specific article contains a brief	there are 1075 search results. Finds the	1. Scrolls up and down the r4D portal. Reads the		
summary of the article date name of author and the	number of search results "packed" and	2. Wonders what the partal is about Indicates		
main article	"clumsy".	2. Wonders what the portal is about. Indicates		
Stops to find information:	3. Tries to find an introduction of what the	about Types in the phrase "nublic sector		
1 Scrolls up and down and concludes that the SciDev Net	portal is about. Finds the title "what is	hudget in Nigeria" in the search box for R4D		
is focusing on climate change—mainly because NIG 2 finds	Eldis " at the bottom of the portal. Indicates	Scrolls up and down the portal twice		
more climate change related stories on the portal. For	that "this topic [what is	3. Clicks on the third title of the search results		
example on the home page alone. NIG 2 finds topics such	Eldis] should have been at	on the first page. It opens on a different tab of		
as disappearing islands. African climate fever, negotiating	the top here".	which NIG 2 is happy with. Realises that the		
climate future.	Barriers to use: number of search results	search results only highlight the keywords in the		
2. Scrolls up and down again to see if there is information	discourages NIG 2.	above phrase in the brief summaries under each		
on results based management. Clicks on "Governance" on	Validity/use: Documents on DFID related	title of the search result. Tries to go to the home		
the home page to see if there is an article on performance	portal will be credible.	page but finds it very difficult to navigate.		
	Downloading: Downloads specific portal	,		



management. But believes they are all focused on climate	Interactive functions: No impact	4. NIG 2 gives up.
change issues. Bookmarks <u>www.scidev.net</u>		Barriers to use: Not clear as to what the portal is
3. Likes the pictures and colourful nature of the portal.		about.
Barriers to use: Finds it difficult to navigate to the home		Validity/use: The credibility of the author, the
page. Unable to locate the site map of the portal.		reliability of the source, the date of publication.
Validity/use: DFID related portals are valid and useful.		Downloading: None observed
Downloading: downloads specific article on the portal		
through Google.		Interactive functions: No impact
Interactive functions: No impact		



Knowledge of:	Participant–NIG 3 Category 8	Information behaviour:
Scidev.net: None	NIG 3 is a media professional for a radio station in Lagos Focuses	Starting: Uses Facebook and Twitter as well
Eldis.org: None	mostly on reporting developmental and political issues in Lagos. Was	as local and international portals to start
R4D: None	part of the 'Occupy Nigeria' group, a non partisan group that was	Chaining Marrie from and martal to another
Portal challenges:	formed to fight corruption in Nigeria.	in search of information. As such nicks the
 No significant challenge was encountered for Scidev. 	Very active on social media— Facebook and Twitter. Shares information on Twitter and Facebook. Before a story goes on air, NIG 3 checks the Twitter handle and Facebook wall of the FM station to	source of information and then looks for that source online.
• NIG3 could not identify any relevant online article on Eldis because the search results did not show it on the first two pages.	ascertain the most trending stories in Nigeria and beyond. Then looks for the source and those who are commenting and posting further details and pictures on the story. Makes follow ups with public figures who have commented on the	Browsing: Browses for online information on various portals including international and local ones. For instance, looks for international news on the BBC and CNN.
• Navigating to the home page on R4D was difficult for NIG3.	story to get their views for the station. Also finds public figures who are in charge to seek their views and the actions they've taken. Then	Searches for local news from The Punch and The Vanguard website.
Use of information:	writes the story, presents it on air and subsequently posts it on	Differentiating: Opens every piece of online
Shared online: Shares information via Facebook wall and Twitter handle.	Facebook and Twitter for feedbacks. Quotes the source of information. For example the name of the resource person or public figure. The source can also be an internet	evidence on a different tab. Copies the most relevant articles and then posts them through the Twitter handle of the FM station.
Shared offline: Does not share information offline.	Daily Mail, The Punch of Nigeria etc. NIG 3 indicates that international news are ascertained from the above named international news	Monitoring: Checks on several portals to see if there are new stories. Also looks for
six months and after that discards it.	portals. Checks the same story from all the above mentioned portals to ascertain the actual facts before making a story. Indicates that "the Oscar Pistorius case for example was very	Extracting: Copies information from different sources and then redrafts the
Repurposed: Gathers online evidence, looks for evidence to show that the online research is	tricky to reportI heard from some of the Western media that the man has been freedso I quickly told my people to hold on for a while I checked several western media	stories to suit what the station wants. Processing: Writes own stories, broadcasts them and subsequently posts the story on
accurate. Rewrites the story in own	including the BBC and realised that it wasn't	Twitter and Facebook.
Read: Mostly reads online articles	the final judgementso we then had to put the nieces together before reporting"	Assessing validity/use:
through Facebook and Twitter.	Likes Twitter and Facebook because they suggest the sources of the	• Triangulates by checking the same stories on different internet portals.

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information and so it makes follow-ups easier. • Relies on independent observers. • Looks for evidence from people in highly Helps NIG 3 to access the number of people who absorb information placed positions. from the FM station in Nigeria and beyond. For instance indicates that "we posted this news item on our Twitter handle vesterday and you can see that it has reached a total of 7,214 people....1,378 people have also liked the story. This shows how the FM station are [is] performing". Makes a lot of validity checks by any (or a combination of them) of the following approaches: 1. Checks from different sources to confirm a story before reporting. 2. Looks /or waits for highly placed sources for reports. 3. Checks other news portals both international (see above) and local (e.g. The Punch, The Vanguard, etc). 4. Relates with neutral sources to confirm information. This includes local Non-governmental Organisations (NGOs) like Enough is Enough (a local NGO). Also works closely with international NGOs like the Red Cross and DFID for first-hand information. NIG 3 gave an example "the for Boko Haram case example....the abduction of the school girls,.... the government was denying it initially...so we had to confirm the story from the International Red Cross who were on the ground before broadcasting the story". Also said that "An accident happens and 10 people die...and the Nigeria police is saying only 3 people died and you have an eye witness who says he counted 10 dead bodies....you will place more premium on the eye witness' story....that eye witness has nothing to lose". Also looks for online information from various internet portals through Google. For instance, types the full name of the organisation responsible for population data in Nigeria-the National Population





Partic	cipant–NIG3	Category 8	part 2
Scidev.net	Eldis.org		R4D
Steps to find specific article:	Steps to find specific article:		Steps to find specific article:
1. Types the keywords of the specific article into the search box of the portal.	 Tries to look for specific community page but was not 	ic article on the Eldis successful.	1. Types keywords in the title of the specific article into the search box of a portal.
 Unable to find the article on the first page. Click the next page and still could not find it. 	2. Types the full title of the box of the Eldis Community p	article into the search bage.	2. Finds the specific article on the first page of the search results. Indicates that it is good to
4. Types two keywords in the title of the specific	3. Gets no relevant results. G	ives up.	have the name of the author, the source, and date of the article. Indifferent about the fact that
article into the search box but was unsuccessful.	Steps to find information:		the article is presented in a PDF format. Reads
Steps to find information:	1. Types the URL of the Eldis	portal into the find bar	the full title and summary.
1. Types the URL of SciDev.Net into the find bar	of the computer.		Steps to find information:
on the computer.	2. Downloads the portal.		1. Types the URL of R4D into Google search box.
2. Moves the cursor on the main menu bar and then clicks on "Governance".	Clicks on Eldis Community of the portal—the interactive	on the right hand side page of the portal.	Downloads the portal. Looks at the website and then types "Nigeria" into the search box. Not
3. Subsequently clicks on "human rights" under the topic "Governance".	4. Types "Nigeria" into the s Community" page.	earch box on the "Eldis	really interested in the number of search results since NIG3 is only interested in the first two
4. Scrolls down and reads the titles aloud to find out which of the general articles is relevant to	5. Unable to find relevant expected.	stories on Nigeria as	pages of the search result. 2. Unable to find any relevant article. NIG3 then
the work at the FM station. 5. Finds no relevant information. Decides to look	6. Clicks on the profiles o discussed issues on the page.	f Nigerians who have	types "Electricity and Nigeria". Scrolls down and then clicks on the second title of the article on
for energy related articles.	7 Clicks on one of the c	omments to view the	the first page of the search results.
6. Gets no relevant result. Then types "fossil	content after scrolling down.		3. Reads the title and conclusion of the article.
fuels".	8. Will prefer the dates on	the comments to be	4. Finds it difficult to navigate to the home page.
7. NIG3 then scrolls down and reads the titles on	more conspicuous.		Indicates that this will be very difficult to use on
the search results page.	Barriers to use: No evidence	found.	view of the portal at a time on a phone.
8. Clicks on the second title, scrolls down gradually and then reads the "speed read"	Validity/use: See SciDe Downloading: Unable to fi	ev.Net on the LHS	Barriers to use: Navigating to the home page of
section.	on Eldis as such could not download.		the portal was a major issue.
			validity/use: See SciDev.Net on the far LHS



9. Copies the link to the article.	Interactive functions: Clicked on the Eldis	Downloading: Downloads relevant article.
10. Pastes the link on the Twitter handles of the FM station and then posts it. Indicates that "I will be expecting comments from those who will read it".	community page to find out the type of people who interact on the Eldis community. Also decides to look at the profiles of those who interact on Eldis.	Interactive functions : Does not use the interactive functions on the portal because of virus and spam issues in Nigeria.
11. Indicates that the portal is friendly and does not look congested. It also has the source and the name of the author of an article.		
12. Will prefer not to use the various interactive features including Facebook, Twitter and LinkdedIn on the portal, since there are a lot of spam and virus issues in Nigeria.		
13. Clicks on the SciDev.Net logo to go back to the home page.		
Barriers to use: No evidence of barriers		
Validity/use: Validate online information by cross checking on other internet portals. Also interviews resources persons and people in high positions who are in charge.		
Downloading: Download online data from the National Population Commission.		
Interactive functions: Does not use the online interactive features.		



Knowledge of:	Participant–NIG 4	Category 5	Information behaviour:
Scidev.net: None	NIG 4 is a professor at the University of	agos NIG 4 is a member of the	Starting: starts online search through
Eldis.org: None	academic committee and the senate of t	the University and is also doing	yahoo search engine.
R4D: None	work for the Department of Education		Chaining: No evidence
R4D: NonePortal challenges: The objectives of the portals are often not clear.Use of information: Shared online: shares unsolicited articles via email.Shared offline: No Saved: Saves article on computer desktop.Repurposed: Makes paper notes after reading the article.Read: Reads abstract first; reads the whole article in detail when NIG 4 finds article relevant.	work for the Department of Education. Uses <u>www.yahoo.com</u> to search for instance, NIG 4 types in Non formal e yahoo search box. NIG 4 scrolls up and c search result on the first page. Looks for k summaries below the title. NIG 4 clicks o that "I go through each page t relevant information". Goes back to the first page of the search re the first page of the search results. NIG 4 then reads through the abstract to needed for the above stated work, and sc after reading the abstract. NIG 4 reads spe makes paper notes. Occasionally NIG 4 r most relevant article. Shares unsolicited reading. Prefers to visit specific portals (prefers already knows that the specific relevant portal. NIG 4 indicates that "if I information on population of to UNFPA [United Nations Po want to look at issues relations want to look at ILO Organisation]and If anything Education, I may w [United Nations Education". Also considers any article that is institu- instructional based articles credible bec assurance checks before it is published.	research evidence online. For ducation programmes into the lown and reads the title of each eywords in the title and the brief in the second page and indicates o make sure I get very result. Clicks on the third title on ascertain whether the article is aves it on the computer desktop ecific article in detail later on and makes notes in Word. Prints the d online articles via email after ably United Nations portals) if t articles can be found on that want to search for f education, I will go opulation Fund]if I ting to labour, I will [International Labour I want to look at unt to look at UNESCO hal, Scientific and utional based as credible. Finds ause there are a lot of quality	Chaining: No evidence Browsing: Searches each page of the search result to ensure that the most relevant articles are identified. Differentiating: Deletes irrelevant articles and downloads and saves only the relevant ones on the desktop of the computer. Monitoring: Colleagues share recently published articles with NIG 4. Extracting: Uses www.yahoo.com to look for online information. Processing: reads and makes own paper notes. Also shares with colleagues. Assessing validity/use: • Date and credibility of the author. • Through institutions.
	assurance checks before it is published.		



most recent articles.
Example of Research Evidence: Currently working on a project for the
Department of Education at University of Lagos.
Uptake:
Research evidence on the internet has made research easier. NIG 4
explains that "when I was doing my PhD,for me to
get information, I will have to travel from here
to Lagos IslandI had to be moving from one
library to another and from one office to another
to look for informationbut with my modem, I
can even be interacting with my
studentsgenerally internet has made learning
easier and comfortable". It has also made working easier and
quicker.



Participant–NIG	4 Category 5 part 2	
Scidev.net	Eldis.org	R4D
Steps to find specific article:	Steps to find specific article:	Steps to find specific article:
1. NIG 4 finds it very difficult to find the search box.	1. Types specific article and finds 15504.	1. Types in the title of specific article
2. Types keywords of the specific article.	2. Indicated that the number of search	into the search box of R4D.
3. Scrolls up and down three times but could not find it.	result is good because it gives more options.	2. Realises that the first article on the
4. Though the article was the fourth title of the search results of	3. NIG 4 prefers spending more time looking	first page of the search results.
the first page, NIG 4 was unable to identify it.	for documents in order to get the most	3. Reads the brief summary below the
5. NIG 4 explains that such specific articles are usually the first	relevant ones.	title to ascertain whether what the
title of the first page of the search results.	4. Find the specific article on the first page	article entails.
Steps to find information:	of the search results of portal.	4. Clicks on the article.
1. Finds <u>www.scidev.net</u> through the <u>www.yahoo.com</u> search	Steps to find information:	Steps to find information:
box.	1. Tries to find the Eldis portal but the	1. Looks for interesting online evidence
2. Moves cursor from one topic to the other on the home page.	website was down. Tries for the second	on the portal by typing early childhood
3. Finds the sub-topic education under the topic communication	time and was successful.	development into the search box of
inconsistent. But believes there is an unexplained rationale for	2. Clicks on the main topic conflict and	R4D.
that.	security on the portal. Finds a Nigerian	2. Happy with the fact that there are 959
4. Finds the portal beautiful but sceptical whether the relevant	related article titled Unemployment and	search results. Clicks on the fourth title
online information can be found on it.	security challenges in Nigeria.	on the second page of the search
5. Clicks on the sub-topic evaluation under the main topic	3. Finds the presentation of the article on	results.
communication to see if there is any information related to	the portal very good considering the fact	3. Likes the fact that the document is
"research policy" there.	that a summary of the article has been	opened on a different tab. Finds the
6. Finds nothing directly related to research policy.	provided for a quick read. Also likes the fact	portal credible since it is DFID funded.
7. Moves cursor to the bottom right corner of the page to click on	that the article can be downloaded in a PDF	NIG 4 believes quality assurance works
the sub-title how to engage with participants in field research.	format.	will be undertaken on any document
8. Reads through the article cursorily and finds it interesting to	4. NIG 4 clicks on the article. Then clicks on	that is published on the portal.
the above mentioned project.	the document in a PDF format mainly	5. NIG 4 tries to go back to the home
9. NIG 4 prefers articles that have a very good analytical rigour	because NIG 4 finds the information that	page by clicking on the DFID logo on the
and rich in data, but very easy to understand. Finds the portal not	"view full report". As an academic, wishes	portal. It opens the main DFID portal.
rigorous enough for academic work. The portal focuses on short	to find a topic called Publication .	Clicks back to the home page of the
pieces of non-specialist information. Indicates that "if I am	Barriers to use: The portal often goes down	portal.
doing a serious academic work like writing a	and also slows.	6. Does not understand the key
paper, I will not focus on this one	Validity/use: See SciDev.Net on LHS	objectives of the portal. Suspects it is a
[www.scidev.net]". However, will use it to gain a general		



knowledge about issues that NIG 4 has no specialty in.	Downloading: Downloads specific article	DFID portal for projects but doesn't
10. Tries to go to the home page of <u>www.scidev.net</u> but found	and an article NIG 4 found.	know specifics. Indicates that DFID
too confusing.	Interactive functions: No impact.	should network such portals with
Barriers to use: No impact		institutional libraries in countries like
Validity/use: Valid since it is a DFID funded portal. Information		Nigeria.
from this portal will always be checked for quality before it is		Barriers to use: The objective of the
published.		portal is not clear enough. Confuses NIG
Downloading: No evidence		4 as to what exactly to look for as a first
Interactive functions: No evidence		timer on the portal.
		Validity/use: See SciDev.Net on LHS
		Downloading: No impact
		Interactive functions: No impact



Knowledge of:	Participant–NIG 8 Category 3	Information behaviour:
Scidev.net: None	Works in Education at Lagos State. Undertaking a project which	• types full sentence into a Google search
Eldis.org: None	aims at creating a platform for bringing together all Lagos schools.	engine.
R4D: None	Looks for information on best practices on international portals like	• scrolls up and down to find the most relevant article.
Portal challenges:	UNESCO and the World Bank.	• opens specific articles in different tabs.
Erratic power supply affects proper functioning of internet, which subsequently slows down the speed of the portals.	Also looks for information through Google search engine. In doing so NIG 8 focuses mainly PDF. NIG 8 explains that "most often when I get PDF documents, I get what I am looking for the document".	 copies article into word and re-writes it in own words. Starting: Starts online search using Google search engine.
Use of information:	Types the full title of an article into Google search engine.	Chaining: Copies key references into Google
Shared online: Shares online evidence	Open several online articles on different tabs.	search engine to finds more relevant
with colleagues.	Scrolls up and down to looks for the most relevant document.	addresses to find more articles
Shared offline: No	Clicks on the most relevant article on the first page of the search	Browsing: Scaps through the front page of a
Saved: Saves relevant article for	Conjes the online article into word and rewrites to suit the ongoing	portal and opens all online evidence in PDF
future use	work. Make references where necessary.	format.
Repurposed: Copies articles online and re-writes them to suit the objectives of the project. Saves the article for future use	Also copies the website on which the relevant article was found into Google search engine to see if more relevant online evidences can be found.	Differentiating: Opens online articles on new tabs and then selects the most relevant ones out of them. Closes the irrelevant ones.
Read: Reads online article including	Also uses Google drive on phone to look for information.	Monitoring: Uses the UNESCO internet portal as one of the default portals.
the references.	Uptake:	Looks for state of the art practices in
	Availability of internet has made information very accessible; even on mobile phones. One does not need to be located at a particular	Education Management Information Systems.
	position like the internet cafe to be able to access information.	Extracting: Copies online article from internet portals into Microsoft Word.
		Processing: NIG 8 always rewrites online article to suit the objective of the project. After that NIG 8 saves the online article.
		Assessing validity/use:



• Co	onsiders online	articles	from
int	ternational sources	valid.	
• Th	e credibility of the	author is also	crucial.



Participant–NIG 8 Category 3 part 2			
Scidev.net	Eldis.org	R4D	
Steps to find specific article:	Steps to find specific article:	Steps to find specific article:	
1. Types specific article into the search box of	1. Types keywords of specific article into the search box of	1. Looks for specific article by first clicking on the	
SciDev.Net.	Eldis. Finds a total of 8660 search results.	home page.	
2. Gets 236 search results. Scrolls up and down	2. Reads the heading of the portal. Believes the search	2. Clicks on advance search and realises it requires a	
the first page of the search results.	results are many because only keywords were used.	lot of information on the article.	
3. Find the specific article on the first page.	3. Finds the article on the first page of the search results.	3. Comfortable with the advanced search since it	
4. Downloads it onto a mobile phone device.	4. Impressed to find a summary of the specific article. Also	will give the most accurate information.	
Steps to find information:	happy that there is an option for downloading the article in	4. Tries to find the article but unable to find the	
1. Types the portal address into Google to find	PDF format.	specific article. Gives up.	
the most relevant article in education.	5. Downloads it.	Steps to find information:	
2. Reads the heading on the home page of the	6. Happy to know the portal is for free access. Bookmarks	1. Types the address of the website into Google	
portal.	the portal for future use. Indifferent with the way the	search engine.	
3. Indicates that it contains a lot of pictures	article is presented on the portal.	2. Looks for education related topics. Reads the	
which makes it colourful, but renders the	Steps to find information:	introductory part of the portal in detail.	
website "heavy" – may consume more internet	1. Types the URL of the Eldis portal into Google but power	3. Finds articles on the portal by clicking on	
data on the phone (i.e. has cost implications).	goes off and so had to use mobile phone.	"Country or Region".	
4. Clicks on the heading "Communication" on	2. Clicks on the heading "education" on the home page of	4. Scrolls up and down three times to see if there is	
the menu of the portal and then goes on to click	the portal. Scrolls up and down to see if there is any	any relevant article on "education" in Nigeria.	
on the sub-heading "education".	relevant article. Realises that the first title on the first page	5. Realises that the portal contains a lot of current	
5. Finds no research evidence.	of the search result is relevant to the ongoing work.	information. For instance, NIG 8 explains that $"I$	
6. Decides to use the search box of SciDev.Net to	3. NIG 8 indicates that articles on DFID related websites	can see this portal contains a lot	
look for information on education.	like Eldis are credible and can be used for any academic	of informationif I say I am	
7. Clicks on the second title on the first page	purpose.	looking for information, I	
after scrolling up and down twice. Downloads	4. Downloads the article onto the phone and then saves it.	can get a lot of current	
the article onto a mobile phone.	Barriers to use: No barrier realised.	information from this portalfor	
Barriers to use: Contains lots of pictures-may	Validity/use: No clear evidence.	my position papers".	
end up consuming a lot of internet data. This has	Downloading: Downloads article in PDF format.	6. NIG 8 notes the address of the portal in a diary.	
cost implications.	Interactive functions: No impact.	7. Subscribes to the portal. Finds the subscription	
Validity/use: Contains lots of current			
information.		Barriers to use: Finds advance search page too	
Downloading: Downloads article.		detailed. Requires too many information and time	
-		consuming.	



Interactive functions: No impact.	Validity/use: Detailed portal and contains articles in
	PDF format (of the view that articles in PDF format
	are reliable)
	Downloading: Downloads online articles in PDF
	format.
	Interactive functions: Subscribes to R4D.



Knowledge of:	Participant–NIG 10 Category 4	Information behaviour
Scidev.net: None	NIC 10 is a development worker in civil society who mostly works	Starting: Starts online search with Google
Eldis.org: Yes, stumbled on it on few	on gonder related issues across the West African sub region. NIG	search engine.
occasions.	10 is currently a member of a Dan African advocacy group. This	Chaining: write the addresses of the portals
R4D: None	advocacy group focuses on expanding the role and influence of	in a diary for future use.
Portal challenges:	women in the financial sector. NIG 10 has published an article on	Browsing: Considers the first page of the
• General search: Indirect effect of	gender and trade	search results as the most likely page for the
erratic supply of power.	NIC 10 uses Google search angine for online evidence searches	search result. Reads cursorily the various
Fldis: Was down	Below describes how NIG 10 searched for online information to	titles of the articles on the first page of the
	write the above article:	search result.
• Scidev.net: Unable to access articles	Types keywords of the article into Google search engine	Differentiating: Downloads and saves
offline.	Scrolls up and down looks at the heading gender and trade	relevant articles.
 R4D: not extensive enough. 	hiased sources (i.e. International Trade Centre, Cuts International	Monitoring: Keen on keeping track of articles
	World Bank)	on the three internet portals. For instance
Use of information:	Prefers PDE document since it can be downloaded and then read	NIG 10 indicates that "I will come
Shared online: Rarely share online	offline	back to this website [R4D]
Shared offline: No	NIG 10 indicates that PDF documents make reading easier NIG 10	for more information on DFID
Saved: Saves online articles for future	explains that "If I see something like this [an	projects".
use.	article in a PDF formatl I can download	Extracting: Looks for credible facts and
Repurposed: Copies online article to	and then when I am the plane 35,000 ft high,	figures online for advocacy work.
Microsoft Word and rewrites articles	I can read it offline on my tabletI don't	Processing: Copies and rewrite online articles
in own words	have to stay online all day".	to suit a document in preparation.
Read: Yes, reads the summary first.	Downloads the online articles on a tablet, so as to move easily	Assessing validity/use:
reads the whole article if it is relevant.	with the article. Also, websites can easily disappear—particularly	Finds online research from international
	when the operators can no more finance its maintenance.	sources like World Bank more valid.
	Clicks on the first title on the first page of the search result.	
	Downloads the article and reads cursorily to ascertain whether it	
	is relevant. In doing so NIG 10 looks at the issues addressed in the	
	article.	
	Saves articles on computer. Shares article with colleagues.	
	Looks for facts and figures online for advocacy work.	
	Acknowledges the authors of the article afterwards.	
	Does not go beyond the first page when looking for a research	
	article.	



Seldom shares hard copies.
Example use of evidence:
Writing an article on gender and trade.
Uptake:
Internet has made it easier for information to be ones finger tips.



Partici	pant–NIG 10 Category 4	part 2
Scidev.net	Eldis.org	R4D
Steps to find specific article:	Steps to find specific article:	Steps to find specific article:
1. Looks for specific article by typing keywords of	No access	1. Looks for specific article by typing a phrase into
the article title into the search box of the portal.	Steps to find information:	the search engine of the portal "development
2. Finds 0 results.	NIG 10 type the web address of Eldis but	finance institutions and infrastructure".
3. Tries to refine the search by clicking on browse	unable to access it.	2. Finds the article on the first page of the search
type on the menu.	Barriers to use:	result.
4. Reads the sub-heading but finds 0 results.	Validity/use: No access	3. Clicks on the article and becomes impressed with
5. Clicks on the heading data , scrolls through the	Downloading: No access	the fact that the portal provides the web link for the
titles on the search result but unable to find it.	Interactive functions: No access	main source of the article.
6. NIG 10 gives up.		4. The article is also downloadable in PDF. The name
Steps to find information:		of author and date of publication has also been
1. Have never seen <u>www.scidev.net</u> before but		provided.
indicates that the portal is a science bias portal.		
2. Types gender into the search box of		Steps to find information:
www.scidev.net.		1. Finds the portal simple. Types the website address
3. Finds 345 search results. Reads the titles of each		into Google search engine.
search result on the first page aloud.		2. Finds the R4D portal. NIG 10 clicks on "themes".
4. And at the bottom of each result, NIG 10 finds		Finds out that there are sub-themes.
some key words which include gender.		3. NIG 10 scrolls up and down in search for the topic
5. Clicks on the keyword gender and realises that a		"Gender", but was not successful. Indicates that the
new page has been opened with another set of		thematic areas are not extensive enough mainly
search results. Becomes confused. NIG 10		because NIG 10 could not find gender.
indicates that "I was not expecting		4. Goes back to the home page using the "back" tab.
this".		But unable to find one. Decides to look for issues
6. But clicks on the first title of the search results		related to peace and security. Clicks on the heading
on the first page.		"Governance and Conflict". NIG 10 then clicks on a
7. Tries to look for an attachment to download so		sub-heading "building, peace and stability".
as to read it offline. Finds no attachment.		5. Finds 795 records. Scrolls up and down once.
8. NIG 10 indicates that " you have to		Reads each title on the first page of the search
come online to read it and you		results aloud.
know there may be no light		6. Clicks on the fifth title of the search result. Finds
[power]".		

Mott MacDonald

9. Realises that the article can be emailed through	
the portal. NIG 10 emails the article to own email	
address.	

Barriers to use: May not be able to read articles on the portal offline since there is no option for downloading the article.

Validity/use: Finds it valid because the portal is funded by DFID. Explains that DFID does a lot of quality checks before publishing an article on its portals.

Downloading: No evidence of download **Interactive functions:** Sends the article to own email address.

the presentation of the article on the portal very interesting. This is because the portal shows the author, date, cost of project and article is also in a PDF format. 7. Also very impressed with the way the document was prepared. NIG 10 indicates that "I am impressed with this [online article] it has a title, name of author, an executive summary...I can decide whether I can go ahead or not". 8. Also happy to note that it is an open access portal. 9. NIB 10 writes the website address of the portal for future use. Barriers to use: Finds the portal not detailed enough. For instance does not cover gender issues much. Validity/use: See www.scidev.net on the LHS.

Downloading: Downloads reports in PDF.

Interactive functions: No impact.



Knowledge of:	Participant–NIG 11	Category 8	Information behaviour:
Scidev.net: None Eldis.org: None R4D: None Portal challenges: Poor internet access and erratic power supply. Use of information: Shared online: Shares information through the GEM website and emails. Shared offline: No Saved: Saves online evidence in Word in a folder. Repurposed: copies articles from the portal into Microsoft Word and	NIG 11 is a journalist in Nigeria. Looks for inform particularly those of the local print media in Nig- Looks for online information using Google sear URL of google to get the search engine of Google "our emphasis is on basic education Ambode search. Scrolls up and down the first page of the port related to the above title. Clicks on the first title Takes NIG 11 to the "Vanguard" newspaper of that the newspaper is of the most reliable sou the education sector. Copies the article and pastes it in word. NIG 12 indicates that the editor will have to review the the information is credible. NIG 11 then reviews publication's standards. Saves the article in a fol Ascertains the validity of the online evi	rmation from private ation on local portals eria. The engine. Types the e. Types the sentence in order to narrow al to find information e on the search result. The portal. Indicates rce of information for article to ensure that the article to suit the der after use. dence by accessing	 Starting: Start online search using Google search engine. Chaining: Follows links of other local portals on Twitter, Facebook and WhatsApp. Browsing: Scans through various titles on the first page of the search result. Differentiating: Downloads and saves only relevant articles. Occasionally prints. Monitoring: Visits other local internet portals to get new information for their work. Extracting: Copies information from online sources into Microsoft word for editing and re-writing. Processing: Publishes the most credible information in the news Journals.
Read : Reads relevant articles in detail.	information from reliable local internet portals. information outside the country—mainly be controversial and can make their audience stay Example use of evidence: General search in education. Uptake: Journalism has become easier, as a result of ir able to access information easily for publicative verification of information easier.	Do not rely much on ecause they can be away from their work.	 Assessing validity/use: Reliability of local internet portal. Do not rely on international sources since they may controversial.



Pa	part 2	
Scidev.net	Eldis.org	R4D
Steps to find specific article:	Steps to find specific article:	Steps to find specific article:
1. NIG 11 uses the "back" tab to go to the home page—mainly because NIG 11 could not find the home tab.	1. NIG 11 starts looking for the specific article by typing the full title of the article in the search box of the portal and finds 19,814 search results.	1. Types the full sentence of the specific article. Finds the specific article with the title "Development finance institutions and infrastructure: A systematic
2. In orders to narrow the search results, NIG 11 types the full title of the specific article (i.e. Big data for development: facts and figures) into the parts	2. NIG 11 scrolls up and down the first page but did not find the article.3. NIG 11 then clicks on the next page and finds the	renew of evidence for development additionality".2. Finds only the article appearing on the first page of the search result.
3. Finds the article on the first page after scrolling up and down twice.	article on the bottom half of the portal.4. Indicates that the article should have been on the first page of the portal.	3. Becomes happy to find the article but was surprised to realise that search result showed only the specific article.
4. Clicks and copies the article.	Steps to find information:	4. Realises that the main title as it presented above
Steps to find information:1. As a journalist, NIG 11 tries to find onlineresearch evidence that is worth publishing.	 NIG 11 types the website <u>www.eldis.org</u> into Google search box. NIG 11 first impression is that the portal is very 	has been briefed in the search result. Reads the summary below the article. 5. However, the full title appeared when NIG 11 clicked on the title. Downloads the specific article.
 Scrolls up and down. Slowly scrolls up and down. Moves the cursor on the topics to see if there is/are any relevant article related to the topic education. 	 slow. 3. Moves the cursor on the portal looking for education related evidence on the portal. 4. Types the topic education in the search box and finds 2476 search results. Finds the number of the search box and states are been been as a search box and search box a	 Steps to find information: 1. Types the sentence "How Lagos State can change the face of education in Nigeria". 2. Scrolls down the first page to find the relevant
 4. Expected to find education as a topic on the home page of the portal. NIG 11 did not find education so decides to find a closely related relevant article that can be published. 5. Finds an article with the title "Focus on disability: defend girls' sexual health rights" at the bottom part of the home page of the distribution. 	search results impressive. 5. Looks for articles which are related to "education in Lagos" on the portal. However, indicates that it can be time consuming looking for information on the portal. For instance NIG 11 explained that "this can be time consuming and imagine you going to a cyber cafe to look for information from this	 article. 3. Finds article as the 6th title on the first page of the search results. 4. Saves article because the article is teacher education related. 5. Clicks on R4D to go back to the homepage. 6. Clicks on "browse by country" and subsequently
6. Clicks on the title. Likes the brief summary	search results. You may have to	selects Nigeria and Africa. Finds 2281 search results.


spend a lot of cash to find such	Finds the number of search result irrelevant.
result [online evidence]".	7. NIG 11 is more interested in breaking news for the
Barriers to use: Finds the portal slow. This can be	media work. Does not find any relevant article.
expensive if one is working in an internet cafe.	Barriers to use: No barrier identified
Validity/use: See www.scidev.net on LHS	Validity/use: See www.scidey.net on the LHS
Downloading: No evidence of download	Downloading: Downloads specific article
Interactive functions: No impact realised	Interactive functions: No impact realised
	interactive functions. No impact realised
s B B C D Ir	<pre>pend a lot of cash to find such esult [online evidence]". arriers to use: Finds the portal slow. This can be xpensive if one is working in an internet cafe. alidity/use: See www.scidev.net on LHS rownloading: No evidence of download nteractive functions: No impact realised</pre>



Knowledge of:	Participant–NIG 12 Category 4	Information behaviour:
Scidev.net: None	NIC 12 is a pharmacist with over 20 years' experience. NIC 12 is an entrepreneur	Starting: NIG 12 mainly starts online
Eldis.org: None	who trades in hospital apparatus like dialysis equipment. NIG 12 is working on a document about childhood killer diseases	information search with Google search engine.
Portal challenges:	NIG 12 uses Google search engine for online research evidence search. In order to narrow search results, NIG 12 types in the full title of any document that is	Chaining: Follows links on Twitter to access more information in the
Poor internet access	important for the work. For instance, NIG 12 types in the title "current guidelines	form.
Use of information:	for the treatment of childhood pneumonia". Hurriedly reads through the search	Browsing: Scrolls up and down the
Shared online: through WhatsApp, Twitter, and	results on the front page of the search results. Pays particular attention to the titles. Also reads the brief summaries below the titles.	first page of the search results. Does not go beyond the first page.
Dropbox.	Finds the first title on the first page more close to the information needed. Clicks on it to download.	Differentiating: NIG 12 downloads and save relevant online research
Shured Shure, only relevant	Reads the title again and then the summary of the article. Saves the article in a	evidence.
documents	folder.	Monitoring: Revisits specialised
Repurposed: NIG 12 copies sections of relevant articles into word and rewrites it to	Copies sections of relevant article and rewrites it to focus on the objectives of the above stated project. NIG 12 also searches for free reliable biomedical and life sciences journal articles on health portals like PubMed Central (i.e. http://www.ncbi.nlm.nih.gov/pmc/).	portals in medicine like PubMed Central to see whether there is new information relevant to the above mentioned project.
suit desired output. Read: Reads saved articles. Also reads online.	NIG 12 considers specific portals like PubMed Central when the article is known to be there. Also considers known journal like The Lancet when looking for evidence online. Example NIG 12 was able get a detailed understanding of the Ebola epidemic in West Africa through The Lancet portal. NIG 12 also considers highly recognised authors and originality of the document (i.e. avoiding plagiarised documents) when searching for a valid online research	Extracting: Reads full article and then copies relevant sections into word and then rewrites it to suit desired output. After that the document is saved in a named folder.
	evidence. However, NIG 12 is very careful with research evidence from international portals like World Health Organisation (WHO). NIG 12 explains that "the WHO's handling of the Ebola crisis was poor and so most people in the medical sector in Nigeria don't rely on it much	Processing: Uses information to prepare power point presentations and also acknowledging the author.
	as a source of research evidence".	Assessing validity/use:
	Will only pay for articles online if that is the only alternative.	NIG 12 focuses on well-known
	Also uses Twitter and emails to share and also access information from other	authors and originality (i.e. avoids



colleagues.	plagiarised	documents)	of	the
Example use of evidence:	research evi	dence.		
NIG 12 is working on a document titled "Advocacy for the prevention of Childhood killer diseases".				
Uptake:				
It has made it easier to look for information from a wider perspective. It is now easier to cross check information. NIG 12 indicates that "nowadays, no one can deceive me; I am able to cross check information that has been provided to me to see if it is authentic". NIG 12 has also gained a huge level of respect from his competitors—medical doctors—since NIG12 is able to make meaningful contributions to medical issues as a result of availability of online information. At the organisational level, access to information has become more inclusive.				



Partic	ipant–NIG 12 Category 4	part 2
Scidev.net	Eldis.org	R4D
Steps to find specific article:	Steps to find specific article:	Steps to find specific article:
 NIG 12 types in the specific article with the title "big data for development: facts and figures" into the search box of the portal. NIG 12 expected the first line of the search 	 Types in the specific article (i.e. Africa Health Strategy 2007 – 2015) into the search box of Eldis. Finds only 1 search result with a different title— 	1. Types the title of specific article (i.e. Monitory health policy successes in the SADC region) into the search box of R4D.
results to be the title of the article but did not find it—gets disappointed because the article was on	"Strengthening of health systems for equity and development in Africa".	2. Unable to find the specific article on the first page.
the fourth line.3. NIG 12 believes the algorithm of the portal is not good enough.	3. NIG 12 clicks on the title as indicated above and finds the title "Africa Health Strategy 2007 – 2015" as a sub-title of the general title "Strengthening of	3. Reads the titles and tries to find keyword in the title. Rather finds the keywords in the brief summaries below the titles of the article.
4. Reads subsequent title to ascertain the nature of search results on the portal.5. Clicks on the specific article and gets surprised	health systems for equity and development in Africa".4. NIG 12 finds it very inconsistent.	4. Gets discouraged to continue searching since NIG 12 expects the specific article to appear on the first page of the search result.
to hear a voice playing in the downloaded article. Steps to find information: 1. Moves the cursor through the various topics on	5. NIG 12 does not read the content but downloads the article in its PDF format.	5. Clicks on the second and third pages of the search results but to no avail.
the portal. 2. Types childhood pneumonia into the search	Steps to find information:	6. Did not see how the titles were presented on the second and third pages.
box and then gets 11 results.3. Decides to narrow the search by typingchildhood pneumonia diagnosis algorithms but	reads the various headings. 2. Decides to click on Global Health.	7. Asks "why are the titles only written as report and others document".
finds zero results. 4. Looks for pneumonia under the topic Health on	 Does not find anything relevant to work. Types Childhood pneumonia into the search box. 	Steps to find information:
www.scidev.net portal finds nothing on pneumonia.5. NIG 12 indicates that the sub topics under health are too limited and does not create the space for more options.	5. Again, does not find anything relevant to the project. But rather indicates that the search results are more related to education than Childhood pneumonia or health.	 NG 12 scrois up and down the portal and then clicks on country. Selects Nigeria and projects. However the search result was a combination of documents and projects.
 6. NIG 12 decides to look for the same article in Google. Finds the article on <u>www.scidev.net</u> on the first page of the search results of Google. 	Barriers to use: Finds it difficult to navigate to the home page after searching for evidence online. Validity/use: See SciDev.Net on the LHS	3. Scrolls up and down to see if there is research evidence of relevance.
	· · · · · · · · ·	



7. NIG 12 later realises that the portal is focused	Downloading: downloads specific article in PDF	4. Identifies research evidence on family
mainly on simple news items on science and	format.	planning and reproductive health to be of
development.	Interactive functions: Finds the Twitter. Facebook	interest.
8. NIG 12 decides to type Sustainable	links verv useful but seldom uses it.	Barriers to use: the search results on the
Development Goals into the search box but the	,	specific portals are difficult to identify.
search results are not consistent with what was		Veliditu/user Coo Scider net on extreme LUS
expected.		Downloading: No ovidence
Barriers to use: Finds it difficult navigating		Downloading: No evidence
through the portal.		Interactive functions: No evidence
Validity/use: Convinced information on the portal		
is valid because it is a DFID funded portal.		
Downloading: Downloaded document on		
pneumonia.		
Interactive functions: NIG 12 finds the interactive		
links such as Facebook, Twitter very useful.		



Table 41:	Nigeria Rese	arch Diary Sum	nmary Table							
Participan t	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
NIG1	find/retrie ve	x	x	retrieved info stored digitally/ contacted a person	email from a person/ contacted a person	x	email from a person/ contacted a person	x	x	x
	why source	x	x	Had a deadline to review the paper by close of work today, and shares a brief on lessons learnt from the findings to work colleagues.	Reviewing the information and giving feedback is a work deliverable and part of sharing lessons learnt on the programme	x	For a few new research areas, I used google search and read up. Mainly worked with internal programme documents today.	x	X	x
	validity	x	x	The authors are known writers, and I was part of the sample design and data collection. The findings are replicable and valid based on the tables and frequencies.	Found the information reliable and valid since I was part of the data collection, entry, editing, and analysis. The writers are known to me as colleagues.	x	Information was clear, precise, and well articulated when compared to the table values and method of analysis	x	X	x
	use	х	Х	read it	read it	х	read it	х	Х	х
	type/purp ose	x	x	I spent time reviewing a DFID report whih evaluates the programme using mixed methods. Added	Reviewed an internal DFID report shared by a research organisation, made comments	x	Received comments on a research report from colleagues and compiled them for authors review	x	x	x



comments to the authors autors. collated influence comments, and sont back to the authors of the authors of the authors of the authors. influence research x x YES - The report was carculated as a comments, and sont back to the authors of the author of the author of the author of the authore authors of	t	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
Influence research x x x YES - The report was circulated as a draft by which uses colleagues, and it evalues the programme using a mic of quantitative and qualitative nethods research					comments to the document and sent to the authors.	collated colleagues comments, and sent back to the authors of the report.					
research x x x YES -The YES -Inhand x YES -Mixed x x x x evidence x YES -The YES -Mixed x x x x x PFID wethods wethods y baseline report. 		influence									
understanding		research evidence	x	x	YES - The report was circulated as a draft by colleagues, and it evaluates the programme using a mic of quantitative and qualitative methods. It has policy recommendatio ns and how best to implement the programme theory of change.	YES -Internal DFID document which uses mixed methods research approach to explain research findings from a survey of 359 schools. The methodology uses random sampling of parents, teachers, and pupils. The qualitative aspect uses purposive selection in the sampling approach. The report uses both an inductive and deductive approach to reach conclusions. / / The document was first reviewed for my understanding	x	YES - Mixed methods baseline report. Sent by a sister programme for review by Results & Learning Department.	x	x	X



Participan t	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
					and learning. Then comments where shared with the authors, since its still a draft document, and allows the authors to finish the write-up.					
	DFID portals	x	x	not used today	???	x	not used today	X	x	x
NIG3	find/retrie ve	Found: online RPP: R4D Retrieved: other: reviewed a search result from R4D	Found: online RPP: R4D	Retrieved: stored digitally/ remembered	Found: online RPP: R4D	x	x	x	x	x
	why source	Curiosity. Today is also the International Anti Corruption day.	Its a 64 page document, read only the objectives of the report yesterday. Planned to study more and see how better and more transparent election results monitoring may be done in Nigeria	It was relative and showed how the huge numbers of current users of social media in Nigeria may be co-opted to help with the objective (data integrity)	access to credible and verified information	x	x	x	x	x
	validity	I have not done a check to see but a simple glace at the data on the poverty research shows	I was an eye witness to the subject of the research being the 2015 political campaigns and	The figures do not look disproportionate considering the widespread use of smart mobile devices in	Locally available information and scenarios was examined	X	X	x	x	X



Participan t	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
		a correlation with local assumptions on the spread of poverty. The wide of use of social media during the last elections in Nigeria threw up many scenarios that can be exploited to have better and more transparent local elections	elections in Nigeria	Nigeria. few reservations with data collated from blog sites and included in the research. many of such figures are often exaggerated for commercial purposes.						
	use	saved/ read	saved/ read	shared offline	saved/ read	Х	x	x	Х	Х
	type/purp ose	1. Multidimensiona I poverty in Nigeria: First order in dominance approach 2. Monitoring social media content relating to the Nigerian elections . / Checked to see whether the report was in tandem with widely held belief about the spread of poverty in Nigeria. The research ended in 2012 which, New Govt in Nigeria was sworn in 2015	Social Media for Election for Communication and election monitoring in Nigeria. Saved the PDF doc. Further reading later, planning to explore the official use of social media for election results monitoring	Brought it up in a meeting to discuss how to use technology to report events that nay be distorted in official reports. Partisan interests often conflict data integrity in Nigeria	Was looking for a factual report on the corruption issue in Nigeria. The report will guide as to what the causes are and where they are endemic	x	X	x	x	X



Participan t	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
		and New policies are being unveiled. 2. looking at the argument for the use of social media to report election results from polling stations to improve transparency.								
	influence					Х	x	x	Х	x
	research evidence	NO	YES: The prevalence of smart mobile devices meant more Nigerians can be reached through the devices and more Nigerians may be recruited into the electoral process in many ways. one way may be "exit polls" etc	NO	NO	x	x	x	x	x
	DFID portals	R4D	R4D	not used today	R4D	x	X	x	x	x
NIG4	find/retrie ve	x	Found: used online RPP: www.worlfounda tion.org / other: yahoo	x [no response recorded for this question]	Retrieved: other: Materials have been downloaded and saved in the system	Retrieved: other: Already downloaded and stored in the desktop	Found: other: R4D	Found: received in email from a person	Found: received in email from a person Retrieved: had stored on paper	0
	why source	x	It is my normal way of searching for	x [no response recorded for this question]	The information was	The information was crucial	This source is most trusted to me because	Because the information is specifically on	It was gotten from the website	l did not retrieve nor use



Participan t	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
			materials on the internet when I do not have specific link for what am searching for.		specifically searched for because they relate to what I was doing	to my justification of the need for the establishme nt of the Research Centre we are proposing	most of the contents posted are of high research quality, reliable and valid.	the area of interest. It is the information provided by the funding agency	of the required organisatio n	any informati on today
	validity	x	The first one was from the website of a foundation which can be regarded as an institution or organization. The other is a journal that is institutional based.	x [no response recorded for this question]	The source was UNESCO and an institutionally based journal which made them to be reliable	They are from established institutions	The information are well researched with credible data coupled with cases, plus the scientific arguments on technology transfer.	it was downloaded from the institution's website and it was document from the institution	The institution is a recognized one	x [no respons e recorded for this question]
	use	x	saved/ read	o [did not do anything with info today]	other: I read it, save and print it. I also use some data in it to add to the work i was doing	repurposed	repurposed	saved	other: We had a meeting in which the document was used.	0
	type/purp ose	x	was reviewing a proposal on male inclusion. I wanted to find out what had taken place before. Got materials from World Foundation website. I needed more time to digest the contents. Made brief note	x [no response recorded for this question]	It is a paper presented at UNESCO Institute of Statistics Workshop on Education Statistics in Anglophone Countries, Windhoek 2010. I was looking for issues in education in	It was a continuation of yesterday's work. I added statistics from the material to the proposal for the establishme nt of a Faculty Research	I made some notes from the information I searched.	I was informed of call for research funding. wanted to have detailed information of the call and the requirements. Downloaded and printed it for further usage	We are to develop a study on local decision making and governanc e, We used it as a platform for the / developme nt of our research	Ο



Participan	Evidence	Dailv01	Dailv02	Dailv03	Dailv04	Dailv05	Dailv06	Daily07	Dailv08	Dailv09
			and save others. I also got information on from Australian Education Review.		Nigeria, I used application and admission ratio into Nigerian higher institutions. It is to beef up the rationale for the establishment of a research centre in the Faculty. I also used an Australian Education Review Journal article: Early Childhood Education Pathways to quality and equity for all children. This is to locate research needs areas in childhood education. The work is still ongoing.	Centre I was fine tuning. I also reprocess another document for inclusion of part of it into the same material.			proposal	
	influence	х								0
	research evidence	X	NO	NO	YES: They were data based	NO	YES: Technology transfer and sustainable rural development	NO	YES: In the website of the organizatio n concerned. It was for the purpose of finding out	0



Participan t	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
									what have been done an what gap our study is supposed to fil	
	DFID portals	x	not used today	not used today	not used today	not used today	R4D	not used today	not used today	0
NIG8	find/retrie ve	Retrieved: had stored digitally	0	Found: used online search engine/ used online RPP: www.unesco.org Retrieved: repeated previous online search/ had stored digitally/ remembered	0	Found: used online search engine Retrieved: repeated previous online search/ had stored digitally	X	0	0	Found: used online search engine Retrieve d: repeated previous online search/ had stored on paper/ had stored digitally/ rememb ered
	why source	To complete the Performance rating of schools on EKO Project	NOT APPLICABLE	Was able to juxtapose with the concept we have in Lagos State EMIS	N/A	Was able to get enough details of occupations and A - Z of Occupation with pictorial view /	x	N/A	N/A	It goes with my work plan
	validity	Reading through the sources of the information	NOT APPLICABLE	Made references to all reference by reading through the original	N/A	No	x	N/A	N/A	The authors are renowne d so



Participan t	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
	USB	0	ρ	documents and standard documents that were validated by UNESCO, DFID, WORLD BANK	Ο	saved/ read/	X	Ο	٥	there is no doubt regardin g validity of data. Their findings have been testified and acknowl edged. Secondl y, these findings have been used widely for theoretic al and concept ual understa nding. So, my work today was simply to identify the share of each author for the activities collected and used
	u30	0	0	repurposed	0	repurposed	^	0	U	read



Participan t	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
	type/purp ose	Not Applicable	0	The use of EMIS platform to generate student performance report. / Made note from some reports from UNESCO site on EMIS factors	N/A	Made notes on the topic Occupation / Search for A - Z of Occupation Using Pictorial view / Made notes on A - Z of Occupation /	x	0	N/A	Searche d data regardin g technolo gical capabilit y building. The intention was to find out the share of each author with regard to innovativ e activities that form he levels of technolo gical capabiliti es of technolo gical capabiliti es of firms. I searche d and saved data. Then I am compari ng with the table I construc ted where the



Participan t	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
										activities are filled in and find out which activities were drawn from which author.
	influence	0	0		0		х	0	0	
	research evidence	0	0	NO	0	NO	X	0	0	YES: Please refer to my commen ts above
	DFID portals	0	0	???	0	not used today	x	0	0	not used today
NIG12	find/retrie ve	online search engine	online search engine	0	0	0	0	talked to person	x	x
	why source	In preparation for a Television interview on the 2016 Nigerian Budget and challenges of financing immunisation in Nigeria.	Wanted to point colleagues to a credible source of information on health facilities in Nigeria.	0	0	0	0	To open discussions on modifying a program objective/strat egy based on new research evidence.	x	x
	validity	Multiple sources with same/similar information including the WHO website.	It is a Government website.	0	0	0	0	Reliability determined based on the credibility of the reporting organisation.	X	x
	use	saved it	shared offline	0	0	0	0	shared offline	x	х
	type/purp ose	In preparation for a Television	Highlighted the existence of a	0	0	0	0	x [no response recorded for	X	x



Participan t	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
		interview, printed information about Nigeria's Immunisation Schedule and the replacement of at least one of the three Oral Polio Vaccine with Injectable inactivated Polio Vaccine.	major health resource portal (http://nmis.mdg s.gov.ng/) during a meeting of 8 major Nigerian Civil Society Organisations "Partnership for Advocacy in Child and Family Health".					this question]		
	influence									
	research evidence	YES - The research evidence was a news publication on the World Health Organisation website (www.afro.who.i nt/en/nigeria/pre ss-materials). / The document helped to debunk a claim, (in an online blog) that Nigeria was still promoting Oral Polio Vaccine instead of switching to the new Injectable inactivated Polio Vaccine.	NO	0	0	0	0	YES - The research evidence was the result of a study done to determine the prevalence of antibiotic treatment in some Nigerian States, and to determine the attitude and behaviour of Healthcare Providers regarding the use of the antibiotic(s) in the treatment of Childhood Pneumonia. The study outcome was reported at a peer group meeting in November 2015.	X	x



Participan t	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
								the research evidence was provided at a meeting with a project sponsor, to justify the need to modify advocacy objectives in the light of the research evidence.		
	DFID portals	not used today	0	0	0	0	0	not used today	x	x
KEY										
Code	Meaning	Notes		Data source						
x	missing data	did not return this respond to question	journal, or did not ons on this topic	Qualtrics shows r	no journal returne	ed				
o	null data	returned daily jour responses to all th showing that parti retrieve or use info day	rnal with positive nree options cipant did not find, ormation on this	Daily Q2_7 "I did Q4_17 "I did not f not retrieve inform	not do anything find any informat nation today"	with data today" on today" AN	AND Daily ID Daily Q5_7 "I did			
find/retriev e	find/retrie ve informatio n	positive response question about fin retrieving info	to at least one ding info or	At least one response Q5_1 to Q5_6 (re	onse to Daily Q4 etrieve)	_2 to Q4_10 (find	l) OR Daily			
why source	why this source?			Daily Q6						
validity	How assess validity?			Daily Q7						
use	use informatio n	positive response question about us	to at least one ing info	At least one response	onse to Daily Q2	_1 to Q2_6				
type/purpo se	type of info and purpose	descriptive		Daily Q3 (type of	info and purpose	3)				



Participan t	Evidence Used	Daily01	Daily02	Daily03	Daily04	Daily05	Daily06	Daily07	Daily08	Daily09
research evidence	used research evidence	positive response research info	e to question about	No to Daily Q8: no	ot used OR Ye	es to Daily Q8: bi	rief description			
DFID portals	used R4D, SciDev or Eldis	stated that used these portals in t	at least one of he reflective journal	Reflective Q2_1, 0	Q2_2, Q2_3					
influence	influence others using informatio n	indicates that pa information to inf making policy etc	rticipant will use iluence others in c.	Reflection Q5 (will what extent (0 to 1	it be used and 00)	how)	Reflection Q4_1 to)		



Heuristic evaluation outcomes (second exercise) **B.4**

The heuristic evaluation technique was used to assess the portals a second time, after the in-country studies had been completed. This section contains the results of this evaluation. The first three tables contain the completed heuristic evaluation form for each of the portals. The next table summarised the issues encountered by the participants, for each portal.

Data collection and analysis form for heuristic evaluation: SciDev.Net Table 42:

Website: SciDev.net Website URL: <u>www.scidev.net</u> Web browser used: Internet Explorer 11	
Expert evaluator's name: David Morse	Session date: 8 th January 2016
Key issues	

key issues

Article selection: articles appear in some searches and then don't appear in others. This doesn't engender confidence because you are left wondering what you are missing and what the website 'knows' that it isn't telling you.

Relevant task or task step	Heuristic being assessed	Usability defect description	Expert evaluator's comments regarding the usability defect
Where am I now? Where can I go next? Search for relevant information	Visibility of system status The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.	The website doesn't have an obvious Home button, although the logo works as one.	Using the logo as a home button is an often used convention, but there would be space to put a 'Home' button in the top menu.
Q: Are users kept informed about what is going on?			
Q: Is appropriate feedback provided within reasonable time about a user's action?			
Is the language used on the website familiar to its intended audience?	Match between system and the real world The system should speak the users'	There are some abbreviations in the menus that I didn't know, such as SDGs. Others,	Does the website need a glossary of terms and acronyms in the help section of the
Website trustworthiness – do I trust the information on the website?	language, with words, phrases and concepts familiar to the user, rather than	such as R&D and ICTs are sufficiently well known that their use is not a problem.	website? Or should SDGs be removed from the menus or expanded?
Is it clear who owns and maintains the website?	system oriented terms. Follow real-world conventions, making information appear in a natural and logical order.	Series (in Browse type > Series) I didn't understand.	Is a series intended as a special topic,

Website: SciDev.net Website URL: <u>www.scidev.net</u> Web browser used: Internet Explorer 11			
 Website name in search engine search. Is it clear what the website contains and who produces the website? Q: Is the language used at the interface simple? Q: Are the words, phrases, and concepts used familiar to the user? 		This isn't a usability issue but is an issue about how up to date the website is. The most recent article in the Agriculture section of the website that refers to Ghana is three years old.	
Are there clear ways to navigate around the website (e.g. is there a home button?) Q: Are there ways of allowing users to easily escape from places they unexpectedly find themselves in?	User control and freedom Users often choose system functions by mistake and will need a clearly marked "emergency exit" to leave the unwanted state without having to go through an extended dialogue. Supports undo and redo.	When you select a section from the menu e.g. Enterprise > Data, the website says 'You are looking at articles about Data' and highlights Enterprise. I was looking for a breadcrumb trail of the form 'Enterprise > Data'	The use of highlighting is to indicate your position in the website is OK once I had realised that is what is going on.
		Interestingly, a breadcrumb trail appears in blue once you select an article, below the main grey menu bar.	
		It is not clear that the words in the grey menu bar are clickable. While 'Browse type' addresses the nature of the content whereas the other options in the menu address the subject matter, there is an argument for giving all the words the same colour background.	
Does the website follow discipline conventions?	Consistency and standards Users should not have to wonder whether different words,	Search doesn't seem to allow for different spellings: 'sulphur' versus 'sulfur' for	In an ideal world, search that allowed for different spellings would be good.
Q: Are the ways of performing similar actions consistent?	situations, or actions mean the same thing. Follow platform conventions.	example, but does appear to allow for stemming through wildcards, so 'sulph*' works.'Browse type' in the menu is called 'content' in the site map and in the 'Refine by'menu block it appears as 'Type'.	'Content type' might be clearer than 'Browse type'. But it would be good if a consistent term was used.
Incorrect or meaningless search terms Q: Are error messages helpful? Q: Do they use plain language to describe	Help users recognise, diagnose, and recover from errors Error messages should be expressed in plain language (no codes), precisely indicate the problem, and	Another misunderstanding. When looking at the Global edition, I had assumed that articles below the banner heading 'Latest on xxx from our other editions' were from those	Perhaps remove the block completely or make the 'Latest on' heading more clearly part of the scrolling block.

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Mott MacDonald





constructively suggest a solution.	other editions. But no, articles below that banner relate to the subject at the top of the page.	
Error prevention Even better than a good error message is a careful design which prevents a problem from occurring in the first place.	I don't have a clear understanding of what the website does and how it works. I had assumed that different 'Editions' of the website had a geographical focus, but that doesn't appear to be the case.	Perhaps a help system that explains how articles are selected according to various criteria: editions,
	1) A search for 'COP21' in the South Asia region yielded an article on the Paris climate change agreement (http://www.scidev.net/south-asia/climate- change/opinion/paris-agreement-green- investments-COP21.html) This article didn't appear in the same search on the Global website.	
	 If I looked in the South Asia section of the website, then searched for an article, e.g. on 'tea' (the drink), there were still articles on tea with a region of Sub-Saharan Africa. 	
Recognition rather than recall Make objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another.	The three bars by 'Browse type' could indicate a menu, but all the other words in this bar have the same functionality, so why don't they have the same icon beside them?	A more common icon to indicate a drop- down menu is some form of arrow pointing downwards, such as the arrows used in the 'Refine by' menu block.
Instructions for use of the system should be visible or easily retrievable whenever appropriate.		
Flexibility and efficiency of use Accelerators unseen by the novice user – may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.	It has taken me a long time to realise that the search term can be edited and the magnifying glass icon is clickable. These appear immediately above the search results. So there are two search boxes on the search results page which are not connected since edits to one are not reflected in the other.	I am not sure that a second search box is particularly helpful unless it could be made more obvious that the search box on the search results page is a search box.
	constructively suggest a solution. Error prevention Even better than a good error message is a careful design which prevents a problem from occurring in the first place. Recognition rather than recall Make objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate. Flexibility and efficiency of use Accelerators unseen by the novice user may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.	constructively suggest a solution.other editions. But no, articles below that banner relate to the subject at the top of the page.Error prevention Even better than a good error message is a careful design which prevents a problem from occurring in the first place.I don't have a clear understanding of what the website does and how it works. I had assumed that different 'Editions' of the website had a geographical focus, but that doesn't appear to be the case. 1) A search for 'COP21' in the South Asia region yielded an article on the Paris climate change agreement (http://www.scidev.net/south-asia/climate- change/opiion/paris-arterement-green- investments-COP21.html) This article didn't appear in the same search on the Global website.Recognition rather than recall Make objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another.The three bars by 'Browse type' could indicate a menu, but all the other words in this bar have the same functionality, so why don't they have the same functionality. These appear inmediately above the search results. So there are two search hoxes on the search term can be edited and the magnifying glass icon is clickable. These appear immediately above the search results. So there are not connected since edits to one are not centered in the other.





Website: SciDev.net Website URL: <u>www.scidev.net</u> Web browser used: Internet Explorer 11			
		then the magnifying glass changes to an icon that I don't recognise when the page is viewed in Internet Explorer. A magnifying glass with a cross over it?	
Do search forms contain irrelevant information?	Aesthetic and minimalist design Dialogues should not contain information,		
Q: Is any unnecessary and irrelevant information provided?	which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.		
Documentation on search – is it provided for advanced searches?	Help and documentation Even though it is better if the system can be used without	As far as I can tell there is no documentation on how to use the website.	Some reference documentation on how the website works would be helpful.
Q: Is help information provided that can be easily searched and easily followed?	documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.	Consequently it took me a long time to understand how the website works. I assumed that Browse type was orthogonal to Agriculture, Environment etc. but it isn't because 'Type' (not 'Browse type') appears in the 'Refine by' menu block on the right hand side.	

Table 43: Issues identified by country case study participants: scidev.net

Issue	Issue description	User
Navigation	Couldn't find home page and couldn't find site map	NIG2, GH6
	Does 'Home' refer to home for the website or home for a section (e.g. agriculture)?	TZ1
	'Data' section should be renamed 'statistics'? Presumably TZ1 was expecting raw data in the data section of the website? Also confusion over Data as a primary category; was expecting it to be a subset of other categories such as agriculture.	TZ1
Search	Search engine not tolerant of misspellings; Google is better in this respect	NIG2; TZ3
	Difficulty in finding search box and result in returned search list	NIG4, NIG12, TZ6
	Difficult to search through large numbers of results (doesn't seem to refine result set).	NIG11
	Expectation that search result would be the first in the result set.	NIG11, NIG12, TZ6
	Difficulty in using search – results returned do not match expectations.	GH5, GH12
	Poor functionality of search box. Doesn't allow editing of search terms beyond deleting them using backspace and then re-entering them	TZ1



Issue	Issue description	User
Content	Content of home page can influence perception of coverage. If all articles relate to climate change then this can colour visitor perceptions	NIG2
	Useful to gain overview of new field but suspects articles lack the academic depth and rigour that he/she is looking for.	NIG4
	Likes summaries of articles but expected to have links to full-text.	TZ3
Trust	It's DFID funded so it must be valid and trustworthy.	NIG2, NIG4, NIG12, TZ5
	Doesn't trust international portals	NIG11

Table 44: Data collection and analysis form for heuristic evaluation: Eldis

Website: Eldis.org Website URL: <u>www.eldis.org</u> Web browser used: Internet Explorer 11 and Firefox 43	
Expert evaluator's name: David Morse	Session date: 9 th January 2015

Relevant task or task step	Heuristic being assessed	Usability defect description	Expert evaluator's comments regarding the usability defect
 Where am I now? Where can I go next? Search for relevant information <i>Q: Are users kept informed about what is going on?</i> <i>Q: Is appropriate feedback provided within reasonable time about a user's action?</i> 	Visibility of system status The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.	What is the ordering of the articles in the blog? It doesn't seem to be alphabetical nor date order. Likewise, what is the order of articles in a search? Presumably some sort of relevance order? The breadcrumb trail for search from the home page says 'Home' whereas most other pages work as expected, so when on a country page, it says 'Home > Country and Region Profiles > Ghana'.	For a blog, date order would be a suitable sort order. For the search, it would be useful if you could select the sort order. Typically relevance and date order would be most usual.
Is the language used on the website familiar to its intended audience? Website trustworthiness – do I trust the information on the website? Is it clear who owns and maintains the website? Website name in search engine search. Is it clear what the website contains and who produces the	Match between system and the real world The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system oriented terms. Follow real-world conventions, making information appear in a natural and logical order.	Does search work on full text search whereas article selection through country profiles and topics works on keywords? When I search for 'coffee statistics' I obtained 2172 documents. When I selected the Statistics topic and then searched for coffee, I obtained 3 or 4 hits, or sometimes the error "Element APISEARCH_ORGS.RESULTS.METADAT A.	How does search work? It would be really helpful if this was explained in a help system somewhere. Why do you get so many more hits when you search for terms rather than looking through the topic index or searching within a topic? This devalues the topic and country profiles since you get so many more hits when you search. But you get so many hits that it is difficult to work through them and



bar. The repeated menu bar is active: the

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Website: Eldis.org Website URL: <mark>www.eldis.org</mark> Web browser used: Internet Ex <u>plorer 11 ar</u>	nd Firefox 43		
		top one is not. The repeat obscures the Eldis logo and the language selection drop- down. Setting 'Compatibility view' in Internet Explorer appeared to fix the problem.	
Website search and customisation (e.g. is there type-ahead in search) <i>Q</i> : <i>Are objects, actions and options always</i> <i>visible</i> ?	Recognition rather than recall Make objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.	How do I unselect a topic within a country profile? Suppose I select a country profile through the top menu of Kenya. I then select a topic of 'Agriculture and food'. I can select other topics within the topic menu, but clicking on All key topics does nothing. The only way to deselect a topic is to click on the country name in the topics menu.	The website appears to be remembering things without telling the user that is what they are doing. This can be helpful but it would be better to make this visible rather than assuming that the user will remember or work it out for themselves.
Does the website have any shortcuts for proficient users? Q: Have accelerators (i.e., shortcuts) been provided that allow more experienced user so to carry out tasks more quickly?	Flexibility and efficiency of use Accelerators unseen by the novice user – may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.	The 'latest news' page is too long. Is there any news before 12 April 2013 or does latest news mean 'all news'?	Break the news page into chunks, displaying, say, 20 articles per page, with a 'More', or 'Older news link to display the next set of news items.
Do search forms contain irrelevant information? <i>Q: Is any unnecessary and irrelevant</i> <i>information provided</i> ?	Aesthetic and minimalist design Dialogues should not contain information, which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.	It is normal to have headers and footers to websites. The footer on the Eldis website is larger than it needs to be. Could some of the links be moved to other pages, or could the space be used more efficiently in some way? Could the 'Reporter email bulletins' and the 'Edited by' blocks be moved elsewhere? The Search box jumps around between the home page and other pages. It would be easier to locate if it was always in the same section of each web page.	Could the footer be reformatted, so the 'About' text just links through to the About Eldis page (which, after all, is a separate link. Could the Site and Engage menus be flattened or shortened so that they didn't take up so much extra space. Since the 'Subscribe' button takes you to a page which invites you to fill in the 'Reporter email bulletins' box, you don't really need both on each page.
Documentation on search – is it provided for advanced searches? <i>Q: Is help information provided that can be</i> <i>easily searched and easily followed?</i>	Help and documentation Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too	The website remembers topic settings between country profiles within a region but not between regions. If I select a country profile (e.g. Tanzania) then select a topic (e.g. Gender) if I select a different country profile such as Nigeria	A manual would be useful, rather than trying to figure out search behaviour by trial and error.



Website: Eldis.org



reset back to All key topics.

Table 45: Issues identified by country case study participants: Eldis

Issue	Issue description	User
Navigation	Difficult to navigate to the home page after searching for information online	NIG12
	'What is Eldis' link should have been at the top of the page, not the bottom	NIG2
	Difficult to navigate the website and find recent articles	TZ8
Search	Difficult to search through large numbers of results; returns far too many results	GH1, GH6, NIG2, TZ3, TZ8
	Confused by the documents and organisations tabs in search results	GH1
	Expectation that search result would be on the first page of the result set	NIG11, TZ8
	Finds the number of search items returned encouraging - indication that there is a lot of [presumably relevant] information in the portal	NIG4, NIG11, TZ6
Content	Concerned about out of date country information	TZ1
	Likes summaries of articles presented	NIG2, NIG4
Trust	Its DFID funded so it must be valid and trustworthy	NIG2, NIG4, NIG12, TZ6
	Portal often not available.	GH5, GH12, NIG4, TZ5
	The portal can be slow (time is money, particularly in Internet cafes)	NIG11, TZ1





Table 46: Data collection and analysis form for heuristic evaluation R4D

Website: R4D Website URL: http://r4d.dfid.gov.uk/			
Web browser used: Internet Explorer 11			
Expert evaluator's name: David Morse		Session date: 10 th January 2016	
Relevant task or task step	Heuristic being assessed	Usability defect description	Expert evaluator's comments regarding the usability defect
Where am I now?	Visibility of system status The system	The search other sites tab in simple search	A list of external sites that are searched
Where can I go next?	should always keep users informed about	is really useful. But the only way to find out	would be useful, rather than just stating that
Search for relevant information	feedback within reasonable time.	look at the link. It would be useful if the	
Q: Are users kept informed about what is going on?		source website could be displayed as part of the summary information for each search	
Q: Is appropriate feedback provided within reasonable time about a user's action?		result. If there were options to group results by website, sort by relevance, date of the source, and so on, that would be powerful too.	
Is the language used on the website familiar to its intended audience?	Match between system and the real world The system should speak the users'	The usage dashboard may not be of interest to many users. However, I struggled	While the usage dashboard is important to R4D for monitoring and reporting purposes,
Website trustworthiness – do I trust the information on the website?	language, with words, phrases and concepts familiar to the user, rather than	to understand what it was telling me. I also found the Browse by date box difficult	I am not sure that it needs to be visible to external users. I would have thought
Is it clear who owns and maintains the website?	conventions, making information appear in	to use since it didn't fit within the window embedded within the web page. Whenever I	sufficient, placed on a sub-page of an About
Website name in search engine search. Is it clear what the website contains and who produces the		date box disappeared. I also found the idea that I could set Browse by date to 'next three days' (or weeks, or years) confusing.	R4D.
website?		What was this telling me?	
Q: Is the language used at the interface simple?			
Q: Are the words, phrases, and concepts used familiar to the user?			
Are there clear ways to navigate around the website (e.g. is there a home button?)	User control and freedom Users often choose system functions by mistake and	Simple search doesn't have different ways to order the research results.	When many results are returned (as they often are with simple search) ordering the
Q: Are there ways of allowing users to	will need a clearly marked "emergency exit" to leave the unwanted state without having		results in different ways can help to identify





Website: R4D Website URL: http://r4d.dfid.go <u>v.uk/</u>			
Web browser used: Internet Explorer 11			
easily escape from places they unexpectedly find themselves in?	to go through an extended dialogue. Supports undo and redo.		results of interest.
Does the website follow discipline conventions? <i>Q: Are the ways of performing similar</i> <i>actions consistent?</i>	Consistency and standards Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform conventions.	It would be nice if the display of search results was tailored by the type of document displayed. If I select 'document' in the Browse by radio button, the display of search results has the same options for sorting results: Title, Project start date, Project cost, and so on.	Perhaps the number of options for sorting search results could be extended, to include, for example, the author, or the place of publication? This is relevant if you select a Document type of Journal article in the Refine your search box.
Incorrect or meaningless search terms Q: Are error messages helpful? Q: Do they use plain language to describe the nature of the problem and suggest a way of solving it?	Help users recognise, diagnose, and recover from errors Error messages should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.	In the browse by country option, I selected browse for documents, in country Nigeria, region Australia and New Zealand. The search documentation explained that this would return documents tagged with 'both the country and the region selected'. There were 748 documents. The 'Refine your search' box says that there are 2 documents.	If you select either a country, or a region then Refine your search appears to report the correct number of documents. If you select both, then it appears not to work, reporting many fewer documents than are found.
Data entry (e.g. form filling) during search or contact me <i>Q: Is it easy to make errors?</i> <i>Q: If so, where and why?</i>	Error prevention Even better than a good error message is a careful design which prevents a problem from occurring in the first place.	The website asks you to see gov.uk for terms and conditions. This website says 'GOV.UK is maintained for your personal use.' I think I am using R4D in my professional capacity so does my use of the website fit these terms and conditions?	
Website search and customisation (e.g. is there type-ahead in search) <i>Q: Are objects, actions and options always</i> <i>visible?</i>	Recognition rather than recall Make objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.	The menu in the left-hand margin is potentially confusing because it groups browse and search operations – which are active things that I would want to do with the website every time I visit it, with other, less common activities such as contacting R4D or reading about Open data. There is an 'Advanced search' link in the menu but there isn't a simple search in that menu. You have to remember that simple search is on the home page of the website, every time you decide that an advanced search is more complex than you need.	As part of a refresh of the website, I would break up the left hand menu block, potentially placing some of the links in to headers or footers for the website. I think there should be a separate link to the simple search in the search menu, even though the designers might choose to leave the simple search on the home page of the website.







Website: R4D Website URL: http://r4d.dfid.gov.uk/ Web browser used: Internet Explorer 11			
Does the website have any shortcuts for proficient users? <i>Q: Have accelerators (i.e., shortcuts) been provided that allow more experienced user so to carry out tasks more quickly?</i>	Flexibility and efficiency of use Accelerators unseen by the novice user – may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.	There isn't an easy to find, obvious shortcut to the home page of the website. I kept clicking on the DFID logo in the top left of the website, which takes you to the DFID home page. The UKAid logo at top right is not clickable.	A link to the home page in a menu bar at the top of the web page would be helpful. The 'Research for development (R4D) database' link in the menu to the right of the page isn't obvious enough.
Do search forms contain irrelevant information? <i>Q: Is any unnecessary and irrelevant</i> <i>information provided?</i>	Aesthetic and minimalist design Dialogues should not contain information, which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.	The website feels dated, as though it could do with a refresh. (Since the source HTML has CSS style sheets for Internet Explorer 6 and 7, it is.) On look and feel alone, it compares unfavourably with SciDev and Eldis. Parts of the website are dated. The systematic reviews page http://r4d.dfid.gov.uk/ SystematicReviews.aspx states that 'DFID are currently commissioning 10 new systematic reviews' and gives a link for more information. The call for reviews closed in October 2013.	A refresh of the website so that it looks more modern would help overcome any impression of datedness.
Documentation on search – is it provided for advanced searches? <i>Q: Is help information provided that can be</i> <i>easily searched and easily followed?</i>	Help and documentation Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.	There is a manual on search and there is a link to it from the home page of the website and the Advanced search page.	The manual is very useful, explaining not only how to perform searches, but also where to find different types of search on the website. If only other websites provided such a manual too. Since there is a manual, I think there ought to be a separate help section of the website, explaining what it is for, who set it up and how to use the website. This could include some of the links in the menu on the left hand side of the page.





Table 47:	Issues identified by country case study participants: R4D	
Issue	Issue description	User
Navigation	Couldn't find home page because there isn't a button labelled 'Home'	GH4, GH6, NIG2, TZ3, TZ6
Search	Advanced search is confusing, too complex and difficult to use	GH1, GH6, TZ1
	Simple search gave an error	GH1
	Difficult to search through large numbers of results	GH5, GH6, GH12
	Expectation that search result would be the first in the result set	NIG2, NIG12
	Search results on specific portals (presumably when searching other portals in simple search) are difficult to identify	GH12
Content	Not clear what the portal is for (does it contain calls for proposals or finished projects?)	NIG2, NIG4, TZ6
	Likes availability of full-text in different formats	NIG2
Trust	It's DFID funded so it must be valid and trustworthy	NIG4, NIG12
	Focus on peer-reviewed articles is valued	GH12
	Likes the portal, it is simple and rich in resources	TZ3



Issues identified in heuristic evaluation that were supported by case study findings:

This section summarises the principal issues and features of the three portals that were examined in the user profiles. Issues have been included in the list if they were raised by several users. I included myself as one of the users (flagged as UK) so if it is an issue that I encountered or thought important, which was corroborated by other users in the user profiles then I have listed it below.

The issues are summarised by portal. The host country of the users that identified the issue has also been identified.

Table 48:	SciDev	
Issue	Issue description	Country
Navigation	Users couldn't find the home page and they couldn't find a site map to help them find the home page	Ghana, Nigeria
	The website doesn't have an obvious Home button, although the logo works as one. I didn't look for a site map to help me find the home page since I tried clicking on the logo and that worked. In the absence of a Home button I would try clicking on the logo. Site maps can be useful if they are complete and up to date, but they are a roundabout way of returning to the home page.	UK
Search	Search is not tolerant of misspellings. The search engine was compared unfavourably with Google which is better in this respect	Nigeria, Tanzania
	I observed that search doesn't seem to allow for different spellings: 'sulphur' versus 'sulfur' for example, but does appear to allow for stemming through wildcards, so 'sulph*' works.	UK
	Search worked as expected so I didn't see enhancements such as tolerance of misspellings and variant spellings to represent significant usability problems.	
	Users encountered difficulty in finding the search box on the portal (there are two, although it is not that obvious that the one above the search result set is actually a search box)	Nigeria, Tanzania
	I didn't have any problems in finding the search box in the top menu bar of the website since this is where I would normally expect to find a search box.	UK
	However, it did take me a long time to realise that the heading which forms the title of the search results is in fact an editable search box. I assumed it was simply a heading and the magnifying glass icon was a reminder that this was a search results page, not a search button. Looking at the two search buttons, one is white on blue, the other is reversed. Perhaps if they were both white on blue, that would give a better clue that the heading actually forms an editable search box. And/or putting the heading in a more obvious search box?	
	It is difficult to search through large numbers of results (the portal doesn't seem to refine the result set).	Nigeria
	Agreed. I added the observation that SciDev doesn't seem to refine the result set since the portal doesn't provide easy mechanisms for searching within the results. Apart from the options to refine by topic (presumably keywords), the only way forward seems to be to rerun the search with more search terms added.	UK
	It was expected that the search target would be the first item in the result set, or at least towards the top of the first page of results.	Nigeria, Tanzania
	This is a reasonable expectation if you are searching for a very specific article and include sufficient search terms that the search result will rise to the top. However, I	UK



Issue	Issue description	Country
	didn't expect this, but then I tended to search by subject rather than for a particular article.	
	The results returned by the searches do not match users' expectations.	Ghana
	Agreed. A search on 'coffee' yielded 91 records (I was really surprised it was so low). At the bottom of the first page of results was an article 'Is it necessary to teach poor kids to code?' (<u>http://www.scidev.net/global/education/scidev-net-at- large/teach-poor-kids-code-writing.html</u>) which I was surprised was included in the search result set. However, the third paragraph of the article contains the phrase 'after a chat over coffee later'. This is the only mention of the word coffee in the article. That explains why the article was included in the result set but it really wasn't what I was expecting.	UK
Trust	The portal is DFID funded so the information (articles) it hosts must be valid and trustworthy.	Nigeria, Tanzania
	In my evaluation I wrote 'I don't have a clear understanding of what the website does and how it works.' I agree that it is important that what the portal holds must be valid and trustworthy, however I don't think this necessarily follows from who the funder is.	UK

Table 49:	Eldis	
Issue	Issue description	Country
Search	It is difficult to search through large numbers of results. The portal returns far too many results.	Ghana, Nigeria, Tanzania
	Agreed, the portal does return a lot of results. Too many? I am less sure that this is an issue, provided that the website provides mechanisms for refining the results, preferably through mechanisms other than simply adding more terms to the search.	UK
	It was expected that the search target would be the first item in the result set, or at least towards the top of the first page of results.	Nigeria, Tanzania
	Agreed, I was expecting relevant results to be towards the top of the first page of results. This is important for inspiring confidence and for encouraging people to use the website.	UK
	Conversely, users find the number of search items returned to be encouraging. This indicates that there is a lot of [presumably relevant] information in the portal.	Nigeria, Tanzania
	Agreed. I took a usability perspective on this so I was concerned with features and facilities for reducing the number of results returned.	UK
Content	Users like the summaries of articles presented.	Nigeria
	Yes, this is a very useful feature. I should have appreciated the usability aspects of this but I note that the summaries are truncated and there is no 'More' button to see the rest of the summary.	UK
Trust	The portal is DFID funded so the information (articles) it hosts must be valid and trustworthy.	Nigeria, Tanzania
	For me, it is the number and types of articles that is key to instilling a sense of quality, rather than the funder. But I agree that there is a brand or reputational 'transference' from DFID to the projects and portals it funds.	UK
	The portal is sometimes not available.	Ghana, Nigeria, Tanzania
	I agree, availability is important. And for portals that have an international audience, maintaining availability outside UK core working hours is important too.	UK
	I had problems with lack of availability when doing my evaluation so I had to switch	



Issue	Issue description	Country
	to another website.	
	The portal can be slow (time is money, particularly when accessing the website over a paid-for connection such as in an Internet cafe).	Nigeria, Tanzania
	Agreed, another important point. Slow websites are frustrating to use and tend to discourage people from using them. I noticed that sometimes the website could be slow (and also unavailable).	UK

Table 50:	R4D	
Issue	Issue description	Country
Navigation	Users couldn't find the home page because there isn't a button labelled 'Home'. (You have to click on the 'Research for Development (R4D) database' label at the top of the menu in the right hand panel.)	Ghana, Nigeria, Tanzania
	Agreed. This confused me too. I couldn't work out how to get back to the home page and clicking on the DFID logo takes you to completely the wrong place. [Actually it is the <i>left</i> -hand panel.]	UK
Search	The advanced search is confusing, too complex and difficult to use	Ghana, Tanzania
	Agreed the form is quite complex and potentially daunting for first-time users. But at least there is an information button for most of the fields and help sheets on the website. I assumed that you didn't have to fill most of the fields in to use the form. If you do (and I saw no evidence that you did) then there are too many options for a search form.	UK
	Simple search occasionally resulted in errors.	Ghana
	I saw no evidence of this (apart from wondering why some results had been returned, which is true of any website).	UK
	It is difficult to search through large numbers of results	Ghana
	Agreed, it is, which is why facilities for refining the search results, including faceted search are important.	UK
	It was expected that the search target would be the first item in the result set, or at least towards the top of the first page of results.	Nigeria
	Agreed, I was expecting to find results relevant to my searches to be towards the top of the first page of results.	UK
	Search results on specific portals are difficult to identify (when searching other portals using the simple search).	Ghana
	Very occasionally it was difficult to find an article having followed a link from the R4D website. However, I found the ability to search other website portals to be really impressive and useful feature of the R4D website.	UK
Content	It is not clear what the portal is for (does it contain calls for proposals or finished projects?)	Nigeria, Tanzania
	I can understand this complaint. The home page of the website gives some idea of its contents but it is only by looking at some of the search results, and the options on the advanced search page that I began to understand to what the portal gives access.	UK
	Users like the availability of full-text in different formats	Nigeria
	This I hadn't noticed, but having looked, typically I could only find full text in one format. The document or project record could be downloaded in multiple formats though. Full text, if it is available, is a good and worthwhile addition to the website though.	UK



Issue description	Country
The portal is DFID funded so the information (articles) it hosts must be valid and trustworthy.	Nigeria
Again I place greater priority to the quantity and quality of the documents on the portal rather than the funding agency, although the latter does have an influence.	UK
The focus on peer-reviewed articles is valued by users	Ghana
Yes, agreed. The fact that R4D flags which articles are peer reviewed (and by implication, which are not) is very helpful.	UK
Users like the portal, it is simple and rich in resources	Tanzania
I agree. I liked the portal too, for the same reasons. But simple in looks rather than functionality since the advanced search is very flexible.	UK
	Issue description The portal is DFID funded so the information (articles) it hosts must be valid and trustworthy. Again I place greater priority to the quantity and quality of the documents on the portal rather than the funding agency, although the latter does have an influence. The focus on peer-reviewed articles is valued by users Yes, agreed. The fact that R4D flags which articles are peer reviewed (and by implication, which are not) is very helpful. Users like the portal, it is simple and rich in resources I agree. I liked the portal too, for the same reasons. But simple in looks rather than functionality since the advanced search is very flexible.

David Morse. January 2016; updated February 2016.





Appendix C. The Value for Money Assessment




C.1 VFM Assessment Plan

Table 51: VFM Assessment Plan

					Methods/
	VFM Question	Sub-questions		Sources	criteria
Economy	1. Are there effective procurement mechanisms for controlling costs and quality of inputs?	Does procurement follow specified DFID procedures? Is there evidence of negotiation/ adjustment of inputs and prices? Are there any comparisons to be drawn with comparator portals?	 1. Descriptive How are purchases made? What are the main cost drivers? How and how frequently are costs benchmarked? 2. Analytical How could costs be reduced? Which costs cannot be reduced/ are beyond your control? Can you give examples of cost reductions that have been achieved (without loss of quality)? 3. Comparative Do you know of similar projects that could be compared with this project? How does the comparator portal do all the above? 	Management views Financial data/meeting notes gathered during inception Additional financial data Sector information gleaned from web Info from Comparator portal interviews	 Semi-structured interview with Financial Managers Rule of thumb input cost comparisons Short Questionnaire + interview sheets for comparators
	2. Are rates/prices of key cost drivers reasonable?	How do salaries and rates compare with the market? Is there evidence that due care is taken in selecting appropriate staff systems and content?	 1. Descriptive How are salaries/rates of pay determined (and adjusted)? 2. Analytical What methods exist to reduce staff costs? 3. Comparative How do they compare with rates paid in other parts of your organisation? With other similar organisations? 	Samples of benchmark salary rates, web-hosting prices and content prices	Internet and internal comparison of relevant salaries, web-hosting rates and prices
Efficiency	3. How is efficiency defined?	How are targets set? How relevant are they?	1. Descriptive What constitutes efficiency for a research portal	Director Project managers	Semi-structured interviews (if feasible





					Methods/
	VFM Question	Sub-questions		Sources	criteria
		How stretching are they?	(and other information supply activities, where relevant?)?	Financial manager	and agreed by team) group session for two-
	4. How is efficiency monitored?	How frequently?	How do you assess/ account for the inherent	Additional management	way ranking of components of the
	5. What management	How is duplication avoided?	How are acceptable "hit rates" and other efficiency	information collected on- site	project: cost vs.
	to ensure efficiency?	How are less productive activities and services	indicators defined – and levels set?	Portal logframes, reports,	
		identified?	What are the greatest obstacles to achieving efficiency and effectiveness?	evaluations.	
		What incentives and competition exist to promote efficiency?	Are there examples of changes in ways of working or project activities that made the project more efficient or more effective?		
	6. Is the programme How c	How do programme outputs	2. Analytical		
	progressing satisfactorily?	compare against plans?	How does management increase value/ reduce cost of different components?		
	7. Is delivery of outputs timely?	Find evidence of efficiency in:	How does the project make sure it is reaching its core target groups?		
		(i) starting (ii) progressing	How has the project been modified as a result of learning about results; availability of new		
		(iii) completing delivery of	methods/technologies etc.?		
		typical outputs	How has the project shared ideas with other information projects?		
	8. How are sector innovations identified?	What do recent innovations indicate about the	3. Comparative		
		responsiveness of management to new information?	Does the project achieve different efficiencies in different geographical areas or with different types of material?		
		How does this compare with comparator?	Are there obvious comparisons with other portals in terms of seeking out efficiencies?		
Effective-	9. How is effectiveness	How is portal use and	1. Descriptive	Director	(if feasible and agreed
ness	defined?	usability defined?	What is the overall Theory of Change?	Project managers	by team) Facilitated
		specific audiences?	At what levels do you take responsibility for effectiveness?	Financial manager Digital Services manager	Testing of portal
		Are wider definitions of effectiveness used?	At what level are the Assumptions so great that you cannot take responsibility?	M&E manager	webmetrics against new evaluation data
	10. How is effectiveness monitored?	What methods and software are used?	What are the key assumptions?	Other impact data	



					Methods/
	VFM Question	Sub-questions		Sources	criteria
		How timely is reporting? What kind of errors are	What are the best indicators of success of the project?		
		there? How does this compare with	How is reach in terms of Southern users and women defined?		
	11 How are results	comparators How comprehensively and	What are the key lessons that project staff take from the webmetrics?		
	validated?	frequently are results tested?	What changes have been made as a result of learning from webmetrics?		
		How do effectiveness	2. Analytical		
		measures stand up to evaluation findings?	Are the web indicators used valid and accurate – in the light of evaluation field work findings regarding Southern users and women?		
			Is it possible to put monetary value on outputs/ on the counterfactual of outputs?		
			What would project staff consider to be proof (convincing evidence) that the portal is successful?		
			What might have been done differently that would have led to greater effectiveness?		
			How would this be apparent in the indicators?		
			3. Comparative		
			Has the portal been more successful in some areas and/or with some types of material and/or types of user?		
			Has effectiveness improved over time?		
			Has the portal achieved more or less than comparable initiatives? How do staff compare their work with that of other portals?		
	12. How is effectiveness	How is learning on effective	1. Descriptive.		
	made more sustainable or replicable?	information work shared? Could this type of project become self-financing?	What can be done to extend or prolong the work of the portal? Could the work become more sustainable after a longer period of funding?		
			2. Analytic		
			What lessons should be taken forward in information work by others?		
			3. Comparative		



VFM Question	Sub-questions	Sour	Methods/ ces criteria
	Are of t will	nere some geographical areas or some types er or some types of material where the work ontinue or where the impact will last longer?	



Appendix D. Webmetrics analysis

D.1 Introduction and methodology

The webmetrics study is conducted to:

- Asses the web performance of Eldis and SciDev.Net
- Identify common trends and outliers between all users and users from the South
- Establish possible benchmarks looking at three 'comparators': Zunia, Pambazuka and GSDRC

The study is conducted using Google Analytics, as the one common monitoring tool used by all websites considered here to report and analyse on their website stats. In particular, Google Analytics is used to extract the following data:

- Overview metrics: Sessions and users; Avg. Session Duration; Pages/Sessions; % new and returning visitors
- Traffic channels: Organic, direct, referral, social, email, other
- Countries
- Devices: desktop, mobile and tablet
- Contents: views and sessions to documents, downloads
- Site speed
- Site search: % of sessions with search, search terms, % of exist after search
- (SciDev.Net only Goal completions: total and individual goal completions)

For these metrics and dimensions, results are compared between 2014 and 2015, to identify possible trends. Additionally, a custom segment is created and applied in the analysis, to single out Traffic from the South – i.e. excluding traffic from Europe, North America, Russia, Central Asia, China, Taiwan, South Korea, Japan, Australia and New Zealand. In some instances, a second custom segment is applied to analyse Africa traffic alone – i.e. including only traffic from African countries.

When using GA to collect and analyse data it is important to recognize some of its limitations and caveats, such as:

Sampling

"Sampling in Google Analytics or in any web analytics software refers to the practice of selecting a subset of data from your website traffic. Sampling is widely used in statistical analysis because analysing a subset of data gives similar results to analysing all of the data." (Google)

As a consequence, Google Analytics (GA) reports requested at different times may present slightly different data, depending on the sample they are based upon.

Cookies and returning visitor





When users delete their browser's cookies prior to their next Visit to a site, these users will be counted as New Users upon their return to a website. Return Visits metric in GA should therefore be considered under-represented.

Time on Page and visit duration

Both these metrics should be carefully interpreted and used. Time on Page is the time between the start time of a specified Pageview and the start time of a subsequent Pageview or Event. For this reason, sessions that include only one Page View and no subsequent action on the site will have a Time on Page of zero seconds. This is the case for example if a Visitor views a page and then closes the browser. Time on Page calculations of zero seconds do contribute to the average. Likewise, visit Duration is the time between the start time of the first Pageview and the start time of the last Pageview of a Visit. Visits with only one Pageview may be attributed a Visit Duration of zero seconds, which contributes to the average. Finally, the time spent on the last Web page will not be fully captured.

D.2 Summary findings

Between the DFID funded portals and the comparators studied, SciDev.Net makes use of the most **advanced configuration of Google Analytics** to create different reporting views, filter data, track goals and conversions. More in general, SciDev.Net appear to have an advanced understanding of its digital analytics process, with multiple data collection points that feed into a dashboard spreadsheet with formulas and calculations.

We haven't had the possibility to discuss in depth how Google Analytics fits into portals' specific digital analytics framework, and review the overall process to identify strength and gaps.

Both DFID-funded portals have **expanded their reach to Southern audiences** (and African in particular) and year on year trend is positive.

Users from these locations tend to be more engaged and loyal, interact more (longer, more in depth) with the portals, when compared to the aggregate data for all traffic locations.

While reach has been expanded, **year on year user's engagement tends to decrease**, with less time spent on page and less deeper sessions. This is true for both portals and independent of the segment analysed.

For both sites, **traffic from the South is unevenly distributed**. India, Kenya, Philippines and South Africa count for around 50% of Southern traffic to both Eldis and SciDev.Net.

There are substantial differences between the two portals in terms of traffic channels. For Eldis **Organic search**, **Direct** and **Referral traffic** remain the three primary sources of traffic, regardless of the segment analysed. For SciDev.Net, **social traffic** is the primary traffic source for traffic for sessions generated in Africa. Facebook counts for more than 90% of this traffic. Social traffic has been increasingly substantially



over the past two years. On the other hand, the percentage of traffic generated by organic search has been declining in spite the fact it increased in absolute numbers.

In terms of **devices**, desktop remains the most commonly used between users of both Eldis and SciDev.Net. However the use of **mobile and tablet expands** largely between 2014 and 2015. This is particularly noticeable for SciDev.Net, registering a 156% growth in mobile sessions. This trend is even stronger when looking at southern traffic alone with mobile sessions increasing over 105% for Eldis and 221% for SciDev.Net.

For both DFID-funded portals, the percentage of sessions with **internal search** remains very low. Returning users are more likely to make use of site search than first time users.

Finally, looking at the use of contents, data available indicate that users increasingly consume and engage with the contents produced and made available by the two portals.

D.3 Eldis Webmetrics

D.3.1 Overview

- Eldis has an increasing number of sessions and user between 2014 and 2015
- Expanding reach: Total number of sessions increases 1% year on year; larger increase in sessions from South (21%)
- Sessions from the South increases from 41% to over 50% of the total sessions
- Other metrics tend to indicate a decreasing user's engagement, with decreasing average session durations and number of visited pages per session
- 635K users in 2015, well beyond the goal set in Eldis logframe
- Most of the users are first time users over 81%. No change between 2014 and 2015

	Date Range	Eldis-All sessions	Eldis-South
Sessions	Jan 1, 2015 - Dec 31, 2015	768,119	385,261
	Jan 1, 2014 - Dec 31, 2014	759,072	317,404
	% change	1.19%	21.38%
% Sessions from South	Jan 1, 2015 - Dec 31, 2015	50.16%	
	Jan 1, 2014 - Dec 31, 2014	41.81%	
	% change	8.35%	
Users	Jan 1, 2015 - Dec 31, 2015	635,012	326,268
	Jan 1, 2014 - Dec 31, 2014	626,073	263,805
	% change	1.43%	23.68%
% Sessions with Search	Jan 1, 2015 - Dec 31, 2015	3.32%	2.46%
	Jan 1, 2014 - Dec 31, 2014	3.69%	3.02%
	% change	-0.0037	-0.0056
Avg. Session Duration	Jan 1, 2015 - Dec 31, 2015	00:02:01	00:02:04

Table 52	Eldis	Sessions	2014/2015
	LIGIO	000010110	201 1/2010



	Date Range	Eldis-All sessions	Eldis-South
	Jan 1, 2014 - Dec 31, 2014	00:02:09	00:02:33
	% change	-0:00:08	-0:00:29
Pages / Session	Jan 1, 2015 - Dec 31, 2015	2.15	2.00
	Jan 1, 2014 - Dec 31, 2014	2.31	2.34
	% change	-0.16	-0.34
Sessions by New Visitor	Jan 1, 2015 - Dec 31, 2015	81.70%	83.40%
	Jan 1, 2014 - Dec 31, 2014	81.50%	81.50%
	% change	0.002	1.90%

D.3.2 Traffic channels

- **Organic** (73%) remains largest traffic source small increase between 2014 and 2015.
- Direct, referral and social all decrease between the two years.
- Organic search generates over 75% of all sessions for Southern traffic.
- Increase in direct, social and others for Southern traffic.

Table 53Eldis Traffic Channels 2014/2015

Default Channel Group	ning Date Range	Eldis	Eldis-South
Organic Search	Jan 1, 2015 - Dec 31, 2015	566,735	290,970
	Jan 1, 2014 - Dec 31, 2014	540,166	235,602
		4.92%	23.50%
Direct	Jan 1, 2015 - Dec 31, 2015	127,640	63,809
	Jan 1, 2014 - Dec 31, 2014	139,659	49,864
		-8.64%	27.97%
Referral	Jan 1, 2015 - Dec 31, 2015	60,270	23,522
	Jan 1, 2014 - Dec 31, 2014	64,042	24,781
		-5.89%	-5.08%
(Other)	Jan 1, 2015 - Dec 31, 2015	7,003	4,233
	Jan 1, 2014 - Dec 31, 2014	4,147	1,788
		68.87%	136.74%
Social	Jan 1, 2015 - Dec 31, 2015	6,401	2,703
	Jan 1, 2014 - Dec 31, 2014	7,286	2,113
		-12.15%	27.92%
Email	Jan 1, 2015 - Dec 31, 2015	43	18
	Jan 1, 2014 - Dec 31, 2014	11	74
		-61.26%	-75.68%
Paid Search	Jan 1, 2015 - Dec 31, 2015	6	6
	Jan 1, 2014 - Dec 31, 2014	3,661	3,182
		-99.84%	-99.81%



Figure 43 Eldis - Traffic channels (2015)



Figure 44 Eldis-Traffic channels (South, 2015)



D.3.3 Countries

- Sessions from the South to Eldis in 2015 are generated from 157 countries see image below.
- Traffic is unevenly distributed, with India (22.20%), Kenya (11.4%), Philippines (6.89%) and South Africa (6.41%) contribute to close to 50% of all Southern traffic.



 Other Southern countries amongst the top 10 include Indonesia, Nigeria, Malaysia, Pakistan, Uganda, and Ethiopia.

Figure 45 Eldis sessions in the South by location



D.3.4 Devices

- Large growth in mobile (48%) and tablet (18%)
- This is much larger for traffic from the South (mobile +106%; tablet +35%)
- Desktop remains most used device (over 77% of all sessions) but its importance is decreasing, especially for Southern users.
- Mobile sessions are increasing for both new and returning visitors at similar rate from all sessions and Southern traffic.

	Date Range	Eldis	Eldis-South
desktop	Jan 1, 2015 - Dec 31, 2015	596,825	280,920
	Jan 1, 2014 - Dec 31, 2014	638,156	263,197
		-6.48%	6.73%
mobile	Jan 1, 2015 - Dec 31, 2015	141,047	90,495
	Jan 1, 2014 - Dec 31, 2014	95,440	43,942
		47.79%	105.94%

Table 54 Eldis traffic by device



	Date Range	Eldis	Eldis-South
tablet	Jan 1, 2015 - Dec 31, 2015	30,212	13,847
	Jan 1, 2014 - Dec 31, 2014	25,512	10,265
		18.42%	34.90%
New Visitor	Jan 1, 2015 - Dec 31, 2015	119,853	76,574
	Jan 1, 2014 - Dec 31, 2014	80,088	37,172
		49.65%	106.00%
Returning Visitor	Jan 1, 2015 - Dec 31, 2015	21,194	13,920
	Jan 1, 2014 - Dec 31, 2014	15,352	6,770
		38.05%	105.61%

Figure 46 Eldis - % session by devices (2015, all sessions)



Figure 47 Eldis - % session by device (2015, South sessions)





D.3.5 Site speed

Site speed decreases for all sessions in the year on year comparison.

Figure 48 Eldis site speed by location 2014/2015

	Date Range	Eldis
Avg. Page Load Time (sec)	Jan 1, 2015 - Dec 31, 2015	14.43
5 5 × ,	Jan 1, 2014 - Dec 31, 2014	11.19
		28.95%
Tanzania Avg.	Jan 1, 2015 - Dec 31, 2015	23.73
	Jan 1, 2014 - Dec 31, 2014	22.43
		5.79%
Ghana Avg.	Jan 1, 2015 - Dec 31, 2015	18.23
	Jan 1, 2014 - Dec 31, 2014	13.45
		35.53%
Nigeria Avg.	Jan 1, 2015 - Dec 31, 2015	30.49
	Jan 1, 2014 - Dec 31, 2014	19.77
		54.23%

D.3.6 Site search

- Decreasing trend in year-on-year comparison.
- Returning visitors tends to use site search more frequently (8% of sessions with search).

	Date Range	Eldis	Eldis-South
%Sessions with site search	Jan 1, 2015 - Dec 31, 2015	3.32%	2.46%
	Jan 1, 2014 - Dec 31, 2014	3.69%	3.02%
		-0.37%	-0.56%
Total Unique Searches	Jan 1, 2015 - Dec 31, 2015	40,126	14,092
	Jan 1, 2014 - Dec 31, 2014	44,078	14,621
		-8.97%	-3.62%
% Search Exits	Jan 1, 2015 - Dec 31, 2015	27.71%	29.17%
	Jan 1, 2014 - Dec 31, 2014	27.34%	27.39%
		0.0037	1.78%
Returning Visitor	Jan 1, 2015 - Dec 31, 2015	8.16%	5.22%
	Jan 1, 2014 - Dec 31, 2014	8.32%	6.67%
		-1.97%	-21.75%
New Visitor	Jan 1, 2015 - Dec 31, 2015	2.50%	1.91%
	Jan 1, 2014 - Dec 31, 2014	2.64%	2.19%
		-5.36%	-12.57%

Figure 49 Eldis site searches



D.3.7 Contents

- Use of Eldis content increases in year-on-year comparison. In 2015, data show: 46K document records available; 500K unique pageviews to documents (+7.8%); 175K downloads (+15.6%).
- Unique pageviews to resource guides show a slight decrease.

Table 55 Use o	f Eldis content				
	Date Range	Unique Page Views	e As % of total	Unique Page Views- South	As % of total traffic
Unique	Jan 1, 2015 - Dec 31, 2015	500,229	38.49%	258,135	19.74%
Pageviews to	Jan 1, 2014 - Dec 31, 2014	463,853	34.01%	226,780	16.67%
2003		7.84%	4.48%	13.83%	0.0307
Unique	Jan 1, 2015 - Dec 31, 2015	187,777	14.45%	99,273	7.59%
Pageviews Resource Guides	Jan 1, 2014 - Dec 31, 2014	199,760	14.65%	105,902	7.78%
		-6.00%	-0.20%	-6.26%	-0.0019
Event: Download	Jan 1, 2015 - Dec 31, 2015	175,368	5.11%	89,880	2.60%
document	Jan 1, 2014 - Dec 31, 2014	153,198	5.25%	78,933	2.67%
		14.47%	-0.14%	13.87%	-0.0007
Sessions with	Jan 1, 2015 - Dec 31, 2015	109,899	14.31%	52,819	6.88%
downloads	Jan 1, 2014 - Dec 31, 2014	95,001	12.52%	44,581	5.87%
		15.68%	1.79%	18.48%	0.0101
Subject >	Jan 1, 2015 - Dec 31, 2015	34,501	1.00%	17,717	0.51%
Content partner	Jan 1, 2014 - Dec 31, 2014	12,737	0.44%	6,966	0.24%
50		170.87%	0.56%	154.34%	0.0027
Subject > Service	Jan 1, 2015 - Dec 31, 2015	5,032	0.15%	2,592	0.08%
> OKHub	Jan 1, 2014 - Dec 31, 2014	644	0.02%	295	0.01%
		681.37%	0.13%	778.64%	0.07%

Visits to Eldis pages containing document abstracts are in general longer than the average length of visits to all pages. While the average session duration for the whole of Eldis is just above 2 minutes, sessions to document abstracts last on average three minutes, with time on page going between 1 and 6 minutes for the top 10 documents in 2015.



Figure 50 Trends for Eldis document abstract page views

	Plot Rov	Secondary dimension 🔻 Sort Type:	Default 🔻		
Page ?			Pageviews 🥐 🗸	Unique Pageviews	Avg. Time on Page
			645,758 % of Total: 39.13% (1,650,112)	500,229 % of Total: 38.49% (1,299,549)	00:02:59 Avg for View: 00:01:44 (71.56%)
	1.	/go/home&id=50387&type=Docu @	12,546 (1.94%)	10,576 (2.11%)	00:03:56
	2.	/go/home&id=15006&type=Docu @	7,457 (1.15%)	5,920 (1.18%)	00:04:08
	3.	/go/home&id=51725&type=Docu @	4,549 (0.70%)	3,607 (0.72%)	00:03:46
	4.	/go/home&id=21267&type=Docu @	3,633 (0.56%)	2,981 (0.60%)	00:04:09
	5.	/go/home&id=69651&type=Docu @	3,515 (0.54%)	3,462 (0.69%)	00:01:09
	6.	/go/home&id=17521&type=Docu @	2,882 (0.45%)	2,375 (0.47%)	00:04:28
	7.	/go/home&id=43978&type=Docu @	2,847 (0.44%)	2,372 (0.47%)	00:05:04
	8.	/go/home&id=64908&type=Docu @	2,696 (0.42%)	2,171 (0.43%)	00:04:47
	9.	/go/home&id=34132&type=Docu @	2,636 (0.41%)	2,306 (0.46%)	00:05:59
	10.	/go/home&id=45068&type=Docu الله ment	2,627 (0.41%)	2,044 (0.41%)	00:04:40

Trends for document abstract pageviews and downloads are similar between all sessions and Southern session's segment.





Figure 51 Eldis - Unique Pageviews to document abstracts

Figure 52 Eldis - Downloads



Increasing access to OKHub content included on Eldis and Eldis content on the OKHub. Total number of unique pageviews remains small percentage of all pageviews.



Figure 53 Unique pageviews OKhub/Eldis content



D.4 SciDev.Net Webmetrics

D.4.1 Overview

- SciDev.Net has a **complex and advanced Google Analytics installation**. This includes:
- use of filters to exclude internal traffic and traffic from robot and spiders;
- creation of multiple 'views' to track traffic more in details, for example to separate data for the different editions in which the portal is available;
- use and tracking of 'goals' and conversions.
- SciDev.Net has the largest reach (2.7M sessions and 2.1M users) and highest year-on-year growth (+40%). Southern sessions grow more rapidly with 54% increase.
- Sessions from the South in 2015 count for 63% of all sessions.
- Decreasing user's engagement (decreasing average session durations and pages per session).

	Date Range	SciDev.Net	SciDev.Net-South
Sessions	Jan 1, 2015 - Dec 31, 2015	2,736,961	1,728,832
	Jan 1, 2014 - Dec 31, 2014	1,954,614	1,122,225
	% change	40.03%	54.05%
% Sessions from South	Jan 1, 2015 - Dec 31, 2015	63.58%	
	Jan 1, 2014 - Dec 31, 2014	57.21%	
	% change	6.37%	
Users	Jan 1, 2015 - Dec 31, 2015	2,107,692	1,324,029
	Jan 1, 2014 - Dec 31, 2014	1,497,421	895,602

Table 56SciDev.Net total sessions



	Date Range	SciDev.Net	SciDev.Net-South
	% change	40.75%	47.84%
% Sessions with Search	Jan 1, 2015 - Dec 31, 2015	0.70%	63.58%
	Jan 1, 2014 - Dec 31, 2014	0.94%	57.21%
	% change	-0.0024	6.37%
Avg. Session Duration	Jan 1, 2015 - Dec 31, 2015	00:02:17	0.47%
	Jan 1, 2014 - Dec 31, 2014	00:03:07	0.53%
	% change	-0:00:50	-0.0006
Pages / Session	Jan 1, 2015 - Dec 31, 2015	1.45	00:02:17
	Jan 1, 2014 - Dec 31, 2014	1.55	00:02:56
	% change	-0.1	-0:00:39
Sessions by New Visitor	Jan 1, 2015 - Dec 31, 2015	76%	1.41
	Jan 1, 2014 - Dec 31, 2014	75.60%	1.49
	% change	0.40%	-0.08

D.4.2 Traffic channels

- Year on year increase of sessions for all traffic channels, except paid search and referral.
- Largest increase is for email (110%) and social (96%). The growth of these two traffic channels is higher for sessions from the South (email 180%; social 122%).

Default Channel Group	Default Channel Grouping Date Range SciDev.Net SciDev.Net-South				
Organic Search	Jan 1, 2015 - Dec 31, 2015	1,075,622	628,845		
	Jan 1, 2014 - Dec 31, 2014	830,725	449,528		
		29.48%	39.89%		
Direct	Jan 1, 2015 - Dec 31, 2015	527,289	296,320		
	Jan 1, 2014 - Dec 31, 2014	440,040	225,675		
		19.83%	31.30%		
Referral	Jan 1, 2015 - Dec 31, 2015	138,805	50,190		
	Jan 1, 2014 - Dec 31, 2014	147,268	53,757		
		-5.75%	-6.64%		
(Other)	Jan 1, 2015 - Dec 31, 2015	27,913	14,251		
	Jan 1, 2014 - Dec 31, 2014	2,505	1,366		
		1014.29%	943.27%		
Social	Jan 1, 2015 - Dec 31, 2015	772,148	615,942		
	Jan 1, 2014 - Dec 31, 2014	392,526	277,402		
		96.71%	122.04%		
Email	Jan 1, 2015 - Dec 31, 2015	71,822	38,065		
	Jan 1, 2014 - Dec 31, 2014	34,061	13,586		
		110.86%	180.18%		

Table 57	SciDev.Net traffic	channels
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Default Channel Gr	ouping Date Range	SciDev.Net	SciDev.Net-South
Paid Search	Jan 1, 2015 - Dec 31, 2015	105,674	85,219
	Jan 1, 2014 - Dec 31, 2014	114,422	100,911
		-7.65%	-15.55%

There's more diversity in traffic channels, with organic search less dominant than for Eldis (40% of all sessions and 36% of sessions from the South).

For traffic from the South, **social is as important as organic search** (36% of Southern sessions; 48% sessions from Africa).

While **email has the highest year-on-year increase**, it contributes to only 3% of total sessions and 2% of sessions from the South.

3% 4% 40% Direct Referral (Other) Social Email Social Email Paid Search

Figure 54 SciDev.Net - Traffic channels (2015)



Figure 55 SciDev-Traffic channels (South, 2015)



D.4.3 Countries

- As for Eldis, there's a long tail of Southern countries generating sessions to SciDev.Net.
- There are less 'dominant' countries in terms of number of sessions.
- The top 5 countries generating sessions to SciDev.Net include: India (10.4%), Mexico (7.06%), Egypt (6.21%), Iraq (5.72%), and Algeria (5.51%).



Figure 56 SciDev.Net Southern sessions by location



D.4.4 Devices

- Sessions increase for all devices used, with mobile showing by far the highest growth in the year on year comparison, with +156% for all sessions and +221% for sessions from the South.
- Tablet is also increasing more rapidly than desktop.
- Mobile use is increasing for both new and returning visitors.

	Date Range	SciDev.Net	SciDev.Net-South
desktop	Jan 1, 2015 - Dec 31, 2015	1,642,247	961,333
	Jan 1, 2014 - Dec 31, 2014	1,491,089	853,590
		10.14%	12.62%
mobile	Jan 1, 2015 - Dec 31, 2015	932,092	683,931
	Jan 1, 2014 - Dec 31, 2014	363,28	212,582
		156.57%	221.73%
tablet	Jan 1, 2015 - Dec 31, 2015	144,934	83,568
	Jan 1, 2014 - Dec 31, 2014	107,173	56,053
		35.23%	49.09%
New Visitor (mobile)	Jan 1, 2015 - Dec 31, 2015	700,648	507,232
	Jan 1, 2014 - Dec 31, 2014	285,656	166,282
		145.28%	205.04%

Figure 57 SciDev.Net sessions by device



	Date Range	SciDev.Net	SciDev.Net-South
Returning Visitor	Jan 1, 2015 - Dec 31, 2015	231,443	176,699
(mobile)	Jan 1, 2014 - Dec 31, 2014	77,628	46,300
		198.14%	281.64%

Desktop remains most used device (61% of all sessions) but its proportion is decreasing.

Traffic from the South show a larger proportion of mobile users (39% of sessions).



Figure 58 SciDev - % session by devices (2015, all sessions)

Figure 59 SciDev - % session by device (2015, South sessions)



D.4.5 Site speed

Similar to Eldis, page speed appears to decrease.



Table 58 SciDev.Net site speed by location

	Date Range	SciDev.Net
Avg. Page Load Time (sec)	Jan 1, 2015 - Dec 31, 2015	17.39
	Jan 1, 2014 - Dec 31, 2014	18.13
		-4.08%
Tanzania Avg.	Jan 1, 2015 - Dec 31, 2015	24.08
	Jan 1, 2014 - Dec 31, 2014	67.96
		-64.57%
Ghana Avg.	Jan 1, 2015 - Dec 31, 2015	34.91
	Jan 1, 2014 - Dec 31, 2014	23.06
		51.38%
Nigeria Avg.	Jan 1, 2015 - Dec 31, 2015	37.44
	Jan 1, 2014 - Dec 31, 2014	43.37
		-13.67%

D.4.6 Site search

Percentage of sessions with search is decreasing for all sessions and sessions from the South.

Table 59	SciDev.Net site sear	ches		
		Date Range	SciDev.Net	SciDev.Net-South
%Sessions with site search		Jan 1, 2015 - Dec 31, 2015	0.70%	0.47%
		Jan 1, 2014 - Dec 31, 2014	0.94%	0.53%
			-0.24%	-0.06%
Total Unique Searches		Jan 1, 2015 - Dec 31, 2015	30,403	13,814
		Jan 1, 2014 - Dec 31, 2014	30,098	9,279
			1.01%	48.87%
% Search E	Exits	Jan 1, 2015 - Dec 31, 2015	19.82%	21.84%
		Jan 1, 2014 - Dec 31, 2014	20.49%	21.88%
			-0.0067	-0.04%
Returning	Visitor	Jan 1, 2015 - Dec 31, 2015	1.27%	1.06%
		Jan 1, 2014 - Dec 31, 2014	1.57%	1.20%
			-18.88%	-11.76%
New Visito	r	Jan 1, 2015 - Dec 31, 2015	0.40%	0.27%
		Jan 1, 2014 - Dec 31, 2014	0.53%	0.35%
			-25.09%	-9.83%

D.4.7 Contents

All SciDev.Net editions see an increase in the number of unique pageviews in the year-on-year comparison



Table 60 Unique page views by SciDev.Net edition

Date Range	Edition	Unique Page Views	% total	Unique Page Views- South	% total- South
Jan 1, 2015 - Dec 31, 2015	Global edition	1,493,081	44%	601,103	17.83%
Jan 1, 2014 - Dec 31, 2014	-	1,034,957	41%	383,038	15.20%
		44.27%	3%	56.93%	2.62%
Jan 1, 2015 - Dec 31, 2015	_	628,713	19%	590,534	17.51%
Jan 1, 2014 - Dec 31, 2014	Middle East and North Africa	269,242	11%	250,362	9.94%
		133.51%	8%	135.87%	7.57%
Jan 1, 2015 - Dec 31, 2015	_	491,463	15%	441,900	13.10%
Jan 1, 2014 - Dec 31, 2014	Latin America and Caribbean	349,091	14%	309,812	12.30%
		40.78%	1%	42.63%	0.81%
Jan 1, 2015 - Dec 31, 2015	_	289,660	9%	125,371	3.72%
Jan 1, 2014 - Dec 31, 2014	Sub-Saharan Africa (FR)	116,168	5%	51,784	2.06%
		149.35%	4%	142.10%	1.66%
Jan 1, 2015 - Dec 31, 2015	_	188,673	6%	137,705	4.08%
Jan 1, 2014 - Dec 31, 2014	South Asia	81,955	3%	59,393	2.36%
		130.22%	2%	131.85%	1.73%
Jan 1, 2015 - Dec 31, 2015	_	173,265	5%	107,761	3.20%
Jan 1, 2014 - Dec 31, 2014	Sub-Saharan Africa (EN)	98,995	4%	55,883	2.22%
	-	75.02%	1%	92.83%	0.98%
Jan 1, 2015 - Dec 31, 2015		108,615	3%	67,173	1.99%
Jan 1, 2014 - Dec 31, 2014		73,890	3%	49,431	1.96%
	South East Asia and Pacific	47.00%	0%	35.89%	0.03%



Figure 60 SciDev.Net sessions (2014/2015) by edition



Figure 61 Increase in unique pageviews by contents (2014/2015)







Figure 62 Increase in unique pageviews by edition (2014/2015)

Users engage with the content of the practical guides. The average time on page for the top 10 guides is much higher than the site average, with up to ten minutes spent on the page.

Table 61 Use of Scidev.Net practical guides

Page URL	Unique Pageviews 2015	Avg. Time on Page 2015
/middleeastandnorthafrica/practicalguide/ات صال/submitpaperscientificjournal	14,660 (12.12%)	00:10:23
/global/practicalguide/publishing/howdoiwriteascientificpaper	14,054 (11.62%)	00:08:54
/global/practicalguide/publishing/howdoisubmitapapertoascientificjourn al	9,643 (7.97%)	00:09:08
/middleeastandnorthafrica/practicalguide/الاغثد/howwritescientificpaper	5,973 (4.94%)	00:08:47
/global/practicalguide/communication/flashtalksciencevideoguide	5,360 (4.43%)	00:09:38
/global/practicalguide/publishing/targetjournalrightresearchcommunicat epublish	5,253 (4.34%)	00:09:15
/global/practicalguide/journalism/howtoreportfromvisitsandfieldtrips	5,155 (4.26%)	00:10:31
/global/articletype/practicalguide	4,479 (3.70%)	00:01:34
/global/practicalguide/publishing/pitchscienceeditorjournalism	4,371 (3.61%)	00:08:57
/middleeastandnorthafrica/ practicalguide/ات صال/flashtalksciencevideoguide1	3,028 (2.50%)	00:09:33

D.4.8 Goals

SciDev.Net makes extensive use of Goals in its Google Analytics configuration to monitor how users interact with the site. Goals include: view article; read article; scroll; interact with article; share article; etc.



- The overall number of Goal completions is increasing in the year on year comparison for both all sessions (+38%) and Southern sessions (+51%).
- All other goals included in this analysis show a similar year on year increase, indicating an increased effectiveness and efficiency of the site.

	Goal completions	All traffic	South
Jan 1, 2015 - Dec 31, 2015	All goals	6,222,221	3,884,496
Jan 1, 2014 - Dec 31, 2014		4,493,695	2,559,614
		38.47%	51.76%
Jan 1, 2015 - Dec 31, 2015	1. View Article (Goal 1 Completions)	2,272,897	1,413,840
Jan 1, 2014 - Dec 31, 2014		1,557,237	867,196
		45.96%	63.04%
Jan 1, 2015 - Dec 31, 2015	2. Read Article (Goal 2 Completions)	1,627,254	1,020,707
Jan 1, 2014 - Dec 31, 2014		1,184,451	681,996
		37.38%	49.66%
Jan 1, 2015 - Dec 31, 2015	4. Scroll (Goal 4 Completions)	909,505	571,995
Jan 1, 2014 - Dec 31, 2014		701,727	410,609
		29.61%	39.30%
Jan 1, 2015 - Dec 31, 2015	6. Interact (Goal 6 Completions)	29,238	13,454
Jan 1, 2014 - Dec 31, 2014		24,474	11,404
		19.47%	17.98%
Jan 1, 2015 - Dec 31, 2015	7. Share Article (Goal 7 Completions	21,744	10,873
Jan 1, 2014 - Dec 31, 2014		17,325	8,387
		25.51%	29.64%

Table 62 SciDev.Net goal completion

D.5 Comparators: Zunia, Pambazuka, GSDRC

D.5.1 Overview

- All comparators analysed don't seem to have the same advanced understanding and knowledge of Google Analytics as applied by Eldis and SciDev.Net in particular.
- The comparators also show a smaller reach than Eldis and SciDev.Net, between the 70K session of Zunia and the 472K sessions of Pambazuka.
- Only Zunia records over 50% of sessions generated in the South.
- All comparators are experiencing a reduction in the number of sessions and users in the comparison between 2014 and 2015. While this is relatively small for Pambazuka and GSDRC, Zunia shows an alarming 50% drop for these metrics.



comparator total sessions				
Date Range	Zunia	Pambazuka	GSDRC	
Jan 1, 2015 - Dec 31, 2015	71,591	472,444	408,042	
Jan 1, 2014 - Dec 31, 2014	143,735	511,257	442,807	
% change	-50.19%	-7.59%	-7.85%	
Jan 1, 2015 - Dec 31, 2015	50.75%	46.01%	45.41%	
Jan 1, 2014 - Dec 31, 2014	45.94%	40.95%	42.53%	
% change	4.81%	5.06%	2.88%	
Jan 1, 2015 - Dec 31, 2015	59,195	359,334	312,034	
Jan 1, 2014 - Dec 31, 2014	116,584	388,672	346,105	
% change	-49.23%	-7.55%	-9.84%	
	Jan 1, 2015 - Dec 31, 2015 Jan 1, 2014 - Dec 31, 2014 % change Jan 1, 2015 - Dec 31, 2014 % change Jan 1, 2014 - Dec 31, 2015 Jan 1, 2015 - Dec 31, 2014 % change Jan 1, 2014 - Dec 31, 2015 Jan 1, 2015 - Dec 31, 2014 % change Jan 1, 2015 - Dec 31, 2014 % change Jan 1, 2015 - Dec 31, 2015 Jan 1, 2014 - Dec 31, 2014 % change	Date Range Zunia Jan 1, 2015 - Dec 31, 2015 71,591 Jan 1, 2014 - Dec 31, 2014 143,735 % change -50.19% Jan 1, 2015 - Dec 31, 2015 50.75% Jan 1, 2014 - Dec 31, 2014 45.94% % change 4.81% Jan 1, 2015 - Dec 31, 2015 59,195 Jan 1, 2014 - Dec 31, 2014 116,584 % change -49.23%	Date Range Zunia Pambazuka Jan 1, 2015 - Dec 31, 2015 71,591 472,444 Jan 1, 2014 - Dec 31, 2014 143,735 511,257 % change -50.19% -7.59% Jan 1, 2015 - Dec 31, 2015 50.75% 46.01% Jan 1, 2014 - Dec 31, 2014 45.94% 40.95% % change 4.81% 5.06% Jan 1, 2015 - Dec 31, 2015 59,195 359,334 Jan 1, 2014 - Dec 31, 2014 116,584 388,672 % change -49.23% -7.55%	Date Range Zunia Pambazuka GSDRC Jan 1, 2015 - Dec 31, 2015 71,591 472,444 408,042 Jan 1, 2014 - Dec 31, 2014 143,735 511,257 442,807 % change -50.19% -7.59% -7.85% Jan 1, 2015 - Dec 31, 2015 50.75% 46.01% 45.41% Jan 1, 2014 - Dec 31, 2014 45.94% 40.95% 42.53% % change 4.81% 5.06% 2.88% Jan 1, 2015 - Dec 31, 2015 59,195 359,334 312,034 Jan 1, 2014 - Dec 31, 2014 116,584 388,672 346,105 % change -49.23% -7.55% -9.84%

These same trends are confirmed when looking at traffic from the South alone, with Eldis and SciDev.Net performing much better than the other websites included in the analysis in terms of reach.





D.5.2 Channels

In terms of traffic channels, Organic, Direct and Referral remain consistently the top three channels for the websites considered. This doesn't change when looking at traffic from the South alone.





Figure 64 Zunia - Traffic channels (2015, all sessions)

Figure 65 Zunia- Traffic channels (2015, South sessions)



Figure 66 Pambazuka - Traffic channels (2015, all sessions)







Figure 67 Pambazuka - Traffic channels (2015, South sessions)

Figure 68 GSDRC - Traffic channels (2015, all sessions)



Figure 69 GSDRC-Traffic channels (2015, South sessions)





The year on year trend sees the most of the traffic channels reducing the number of session they contribute to the sites. This is not surprising given the general reduction in traffic observed earlier for the comparators.

The only two channels that grow are Email for Zunia and Social for GSDRC. For Zunia, this is an indication of potential value of push services to maintain a residual user base, while traffic is shrinking.



Figure 70 Traffic channels - year-on-year % change (all sessions)

Looking at traffic from the South alone, the picture is more varied with an increase also in Social for Zunia, Direct and Social for Pambazuka and Direct, Social and Email for GSDRC. This appears more in line with the general trends observed for Eldis and SciDev.Net especially in terms of social traffic.





Figure 71 Traffic channels - year-on-year % change (Sessions from South)

D.5.3 Devices

In terms of devices, desktop remains the most common device for users of the three comparators. The percentage of sessions from desktop however is quite different amongst the different sites, with over 83% of sessions to Zunia performed from desktop, while this percentage drops to 62% for Pambazuka. It is confirmed that users from the South tends to use handled devices more frequently. This is noticeable especially for Pambazuka, where 44% of Southern traffic comes from mobile or tablet.







Year on year trends are in line with what was observed earlier for Eldis and SciDev.Net. Besides Zunia, the other two websites show an increase (even if minimal) in mobile or tablet traffic.





The trend is more evident when looking at Southern traffic alone. For this segment, mobile and tablet traffic to Pambazuka and GSDRC increases between 60% and 54% between 2014 and 2015.





D.5.4 Site speed

Table 64Comparator portal site speed

	Date Range	Zunia	Pambazuka	GSDRC
Avg. Page Load Time (sec)	Jan 1, 2015 - Dec 31, 2015	13.03	11.35	8.58
	Jan 1, 2014 - Dec 31, 2014	11.46	11.01	6.7
		13.70%	3.09%	28.06%
Tanzania Avg.	Jan 1, 2015 - Dec 31, 2015	49.16	29.11	21.81
	Jan 1, 2014 - Dec 31, 2014	20.24	30.45	9.79
		142.90%	4.41%	122.81%
Ghana Avg.	Jan 1, 2015 - Dec 31, 2015	50.56	28.86	7.47
	Jan 1, 2014 - Dec 31, 2014	36.68	58.43	13
		37.86%	50.61%	-42.56%
Nigeria Avg.	Jan 1, 2015 - Dec 31, 2015	40.54	16.23	19.28
	Jan 1, 2014 - Dec 31, 2014	25.44	24.13	22.88
		59.35%	-32.75%	-15.73%

D.5.5 Site search

Amongst the comparators, only GSDRC appears to register sessions with site search. The percentages of sessions with search remain low for the aggregated traffic, as well as for new and returning visitors. Returning visitors use the search function more frequently than first time visitors.

Site search (2015, all sessions)			
Г	Eldis	SciDev	GSDRC
All Sessions	3.32%	0.70%	0.36%
Returning Visitor	8.16%	1.27%	0.80%
New Visitor	2 50%	0.40%	0 17%

]	Eldis	SciDev	GSDRC
All Sessions	2.46%	0.47%	0.22%
Returning Visitor	5.22%	1.06%	0.50%
New Visitor	1.91%	0.27%	0.15%





Table 65: Glossary		
TERM	DEFINITION	SOURCE
Access	The opportunity to use the resources that are available. It depends on personal search and discovery skills, presence of alternative research sources, e.g. research assistants and librarians, as well as the design of the interface with the online resources.	K. Wella & J Harle, ARCADIA Availability, access and use: re- understanding the e-journal problem?
Availability	The existence of the technology, connectivity and online resources. This depends on bandwidth, the quality of the IT, financial resources for online subscriptions, etc.	"K. Wella & J Harle, ARCADIA Availability, access and use: re- understanding the e-journal problem?
Awareness	The knowledge of the resources that are available.	"K. Wella & J Harle, ARCADIA Availability, access and use: re- understanding the e-journal problem?
Discoverability	In internet terms, the ability of services to be found <i>when</i> <i>needed</i> (as opposed to more active marketing which aims to distract and disrupt).	www.techopedia.com
Information behaviour	A range of activities or processes that include accidentally encountering, needing, finding, foraging, choosing, organising, sharing, using and avoiding information. Information behaviour encompasses purposive behaviours such as information seeking and passive or unintentional behaviours (including passive searching and passive listening).	Looking for Information: A Survey of Research on Information Seeking, Needs and Behaviour, Donald O. Case, 2012. New Directions in Information Behaviour, ed. Amanda Spink and J Heinstrom, 2011
Information literacy	Knowing when you need information, and are then able to identify, locate, evaluate, organise and effectively use the information to address and help resolve personal, job related, or broader social issues and problems.	UNESCO, US National Commission on Libraries and Information Science et al Goals, objectives and participant responsibilities. Meeting of experts on information literacy 2002.
Information need	A recognition that your knowledge is inadequate to satisfy a goal that you have. Information needs can include: the need for new information to form an opinion, to discover what is happening, or to build knowledge of a subject; or the need for information to confirm information or beliefs already held.	Looking for Information: A Survey of Research on Information Seeking, Needs and Behaviour, Donald O. Case, 2012. Wilson T, Walsh C. Information behaviour: an inter-disciplinary perspective. British Library Research and Innovation Report 10. London: British Library Research and Innovation Centre, 1996;
Information seeking	The conscious effort to acquire information in response to having identified a need or gap in one's knowledge e.g. through active searching or ongoing searching.	Looking for Information: A Survey of Research on Information Seeking, Needs and Behaviour, Donald O. Case, 2012.
Information browsing	Scanning heading and lists on a website and following one interesting link to another, possibly with an objective but without a planned search strategy.	http://www.businessdictionary.com/
Information encountering	'A memorable experience of unexpected discovery of useful or interesting information.	S. Erdelez & K.Rioux, Towards understanding Information Encountering on the Web, 2000



TERM	DEFINITION	SOURCE
North and Northern	Referring to the set of countries categorised as high income by the World Bank.	
Evidence	Credible and verifiable information which you use in making judgements and decisions. It comes from a wide range of sources, including other practitioners, subject experts and policy communities, as well as peer-reviewed journal articles, statistical databases or evaluation reports.	Evaluation team definition used in market research
Online research portals and repositories	Online portals and repositories that make international development research findings available.	DFID ToRs for Evaluation of online research portals and repositories (Final version 5.1.15)
Policy actors	The people who influence the shaping and implementing of policy. They are not responsible for taking substantive decisions, but contribute indirectly by generating and promulgating research and evidence.	L. Shaxson: Developing a strategy for knowledge translation and brokering in public policymaking, 2010
Policy makers	The people who take substantive decisions about how a policy is shaped and implemented. Depending on the type of policy being developed, policy makers are not only senior officials in central line Ministries; they include the network of people and organizations involved in crafting and delivering the policy throughout its lifetime. Policy makers are thus a sub-set of policy actors.	L. Shaxson: Developing a strategy for knowledge translation and brokering in public policymaking, 2010
(Web) Portal	An all-in-one Web site used to find and to gain access to other sites, but also one that provides the services of a guide that can help protect the user from the chaos of the Internet and direct them towards an eventual goal.	Web Portals: The New Gateways to Internet Information and Services, ed. Arthur Tatnall,
Research evidence	A type of evidence which comes from a more limited range of sources, such as peer-reviewed journal articles, statistical databases or evaluation reports. Research evidence is evidence which is systematically obtained and usually quality assured in some way.	Evaluation team definition used in market research
South (and Southern)	Referring to the set of countries categorised as low and middle income by the World Bank.	GDNet Year 3 M&E Report, Gregorowski et al, 2014
Uptake	Findings being applied in international development decision-making, such as by policy-makers or practitioners.	DFID ToRs for Evaluation of online research portals and repositories (Final version 5.1.15)
Use	Reading, downloading, sharing of portal services or material found on the web.	DFID ToRs for Evaluation of online research portals and repositories (Final version 5.1.15)
Intended users	(In general) Target users of the portals. DFID's target population in this instance is all policy actors.(In relation to the Market Research) Participants that fell into one of the 8 priority categories.	
Primary Intended Users	A term specifically used to describe participants in the Market Research that fell into one of the priority category groups that received a minimum of 50 responses.	
Actual users	Actual/current users of online research resources and evidence.	
Potential users	Intended users who are currently not users of online research resources and evidence.	


Appendix F. Terms of Reference

Section 3: Terms of Reference²³

A. Purpose, Scope and Approach

The primary purpose of this evaluation is to "evaluate the success and value for money of DFIDfunded work to communicate research online". For example, the findings in relation to Eldis will provide evidence on the performance of the Global Open Knowledge Hub programme at outcome level. The findings will also inform DFID decision-making about its future portfolio.

The secondary purpose of this evaluation is to "strengthen the evidence base that supports research communication in the interests of international development". The aim, therefore, is to investigate robustly the information needs and information seeking behaviour on the internet of development decision-makers and related actors, as well as the extent to which needs are met by current portals and repositories.

The supplier will carry out a high quality, broad and deep evaluation of online research communication. This will encompass current and recent online programmes funded by DFID and others as well as the existing body of evidence and, selectively, other portals/repositories.

The scope comprises, mainly, four portals and repositories supported by DFID: do they make research available and accessible in a cost-effective way and have impacts on policy and practice decision-making? The anticipated impact, outcomes and outputs, taken from the programmes' logical framework, are listed below, along with relevant indicators. However, the evaluation will not focus solely or indeed primarily on these but encompass meaningful outcomes and impacts more broadly - positive and negative, intended and unintended.

1) Eldis portal which is funded through the Global Open Knowledge Hub programme managed by the Institute for Development Studies

ELDIS log frame excerpts		Relevant indicators
Impact	Evidence-information policy making and practice by development actors which will ultimately contribute to	
	improvements in the lives of poor people	

²³ These are the terms of reference as modified for the evaluation contract



Outcome	Content made available via the Hub is accessed and	Indicator 2: Number of visits to Eldis
	valued by policy makers, practitioners and intermediaries	Indicator 4: Eldis valued by users.
Output 1	Development of Open Knowledge Hub, underpinned by	
	open source technology which enables IDS and others to	
	contribute, pull out and repurpose content	
Output 2	IDS GOKH services (BLDS, Eldis, BRIDGE) make research	Indicator 2: Number of resources
	knowledge available by sourcing, synthesising and	made available on Eldis
	contributing content to the Hub	
Output 3	Non-IDS data providers make research knowledge more	
	widely available by contributing content to the Hub,	
	which is then available to all services using the Hub	

2) R4D (Research for Development), DFID's repository for all DFID-funded global public good research.

R4D log frame excerpts		Relevant indicators
Impact	Assist DFID, along with other online services such as	
	.Gov.uk and the Development Tracker, in improving the	
	openness and transparency of DFID funded research	
Outcome	R4D sites, database and services are continually	Indicator 1: Access to DFID funded
	maintained, updated and accessible to all users. R4D	research information by target
	makes available open applications, such as the API and	audiences
	R4D open data, to organisations and individuals for use	Indicator 2: Increase in size of R4D
	in other websites and/or databases and enable others	database and contains up to date
	to develop further applications from them. R4D ensures	records and information
	that DFID's research information and outputs are open	Indicator 3: Website, Database and
	to all and continue to enable users in finding,	Platforms (e.g. Linked Development)
	manipulating and understanding the research projects	are maintained and accessible
	and programmes we fund.	
Output 1	R4D website and database content is accessed/used.	Indicator 1: Content is accessed and
	Content is accessible to users in a range of forms and	used (webstats)
	formats	Indicator 2: Content is accessed and
		used by users in the North and South
		Indicator 3: Content is accessible via
		key search engines/reference services
		and through feeds
Output 2	Content in the R4D database updated and maintained	Indicator 1: Content updated and
		added to the R4D database
		Indicator 2: Content maintained, up to
		date and accurate
		Indicator 3: Metatags/metadata
		cleaned, updated and maintained to
0		Improve accuracy of content
Output 3	website, database, search and open applications	indicator 1: Website, database and
	maintained and accessible to all users; nandover of R4D	search maintained and accessible
	and involvement in Government Digital Service process	indicator 2: Open data and



for the new R4D undertaken and completed as specified	applications (API) maintained and
by DFID	available through R4D

3) GDNet portal managed by the Global Development Network

GDNet log fi	rame excerpts	Relevant indicators
Impact	Better policy informed by better research	
Outcome	Diverse research and policy audiences make	Indicator 1: Southern users make use of southern
	better use of development research from	research in their own research
	the global south	Indicator 2: Cases of knowledge-into-use in policy
		processes in Southern countries
Output 1	Southern research better informed by	Indicator 1: Level of use of, and satisfaction with
	current ideas and knowledge	GDNet research-oriented on-line services
		Indicator 2: Level of use of, and satisfaction with,
		themed services
Output 2	Researchers better able to communicate	
	their research to policy	
Output 3	Knowledge networking between	Indicator 1: GDNet user base interaction
	researchers and with policy actors Increased	Indicator 2: Researchers' interactions with the
		policy domain
Output 4	Lessons about knowledge brokering best	
	practice in the global south learnt and	
	communicated	

4) SciDev.Net which communicates journalistic articles about development research

SciDev.Net log frame excerpts		Relevant indicators
Impact	Greater uptake of science and scientific evidence in policies, programmes and projects that reduce poverty, promote well- being and build equitable sustainable economic growth in support of achieving the Millennium Development Goals	
Outcome	Decision makers, science communicators, policy intermediaries and scientific researchers are better able to make use of high quality science-related information	Indicator 1: SciDev.Net readers use science-based information to inform decision-making and development projects Indicator 2: Senior level policy makers and scientists as opinion authors report that there has been an improvement in research networks as well as increased engagement on policy and development as a result of publishing an opinion piece.
Output 1	A well-used, authoritative and responsive service providing timely news and information across stakeholders	Indicator 1: Production of news and features that focus on the role of science in development Indicator 2: Content is well read by global audience Indicator 3: High level of trustworthiness/ authoritiveness of



		SciDev.Net as perceived by its readers
		Indicator 4: Increase global syndication of SciDev.Net content
		Indicator 5: Annually introduce an innovation to digital
		infrastructure to improve reach of content
		Indicator 6: Increase proportion and numbers of female
		registrants accessing our content
Output 2	Production of analysis of research findings and tech innovation, exploring socio- economic implications	Indicator 1: Mainstream gender awareness & wellbeing approach in production and delivery Indicator 2: Thematic columns on 5 key topics (gender, private sector, marginalised, disabled and migration) providing news analysis whose readership increases year on year Indicator 3: Number of opinion articles by external contributors
Output 3	Support to capacity building to	
	sustain uptake of research	

Approach

The supplier will conduct the study in two stages. The first stage will both i) undertake a set of discrete tasks, each on a modest scale, in order to produce an early substantive report; and ii) serve as an inception phase for the central and challenging elements of the evaluation to be undertaken in stage two.

Specifically, stage one will include:

- Collation and analysis of available evidence on the use of these portals and others. This evidence comprises data from webmetrics, as well as that from DFID's internal annual reviews, previous external reviews and other literature.
- Review of directly relevant literature.
- Preliminary assessment of the quality, accessibility (to global users) and ease of use of these portals/repositories.
- Interrogation and validation of recent webmetrics data and recommendations on suitable definitions for comparable indicators and the tools to capture these. Note the need for suitable specialist expertise here, due to the rapid current evolution of methods for capturing webmetrics and the high variation in the results produced by different tools.
- Further development of the initial Theory of Change (ToC), drawing in the evidence found in the literature element of this stage as well as through stakeholder engagement.
- Drafting of a substantive report drawing together these elements. This report is intended to be a synthesis/review of currently available evidence around the issues outlined in the



provisional evaluation questions below. In addition to synthesising available evidence, the report should identify where the main gaps in the evidence lie.

• Production of a separate inception report confirming proposals for the second stage of the evaluation, addressing core questions on user populations, uses, impacts and value for money. The inception report should set out detailed methods proposed to fill the gaps identified in the substantive report.

• Secondary evidence synthesis and analysis should be conducted in line with DFID's guidance on <u>"Assessing the Strength of Evidence"</u> (2014).

B. Evaluation Objectives and Questions

The objectives of this evaluation are:

- 1. To assess the <u>quality and accessibility</u> of online research portals and repositories and to collate and <u>analyse the available evidence</u> on their use.
- 2. To describe <u>user populations</u> and examine how they interact with online research portals and repositories.
- 3. To identify and illustrate plausible pathways between portal use and use of evidence in policy and practice. This will involve consideration of what users do with the content once they have read it online or downloaded it. This objective primarily relates to the DFID-funded portals and repositories, but evaluators may choose to also consider those not funded by DFID as this will help to show how DFID-funded work could be improved.
- 4. To assess whether the DFID-funded portals and repositories present <u>value for money</u>, in their own right and in relation to portals and repositories not funded by DFID. DFID's approach to value for money is outlined in published guidance.²⁴
- 5. To provide recommendations for how the DFID-funded programmes might be <u>improved</u> <u>and better monitored</u>.

Suggested evaluation questions in relation to the objectives included:

Q1.1 How well designed and structured are portals and repositories to promote ease of access and use from locations worldwide, especially those in the global South?

Q1.2 What is known of the current levels of access to and use of portals and repositories; what are the trends and reasonable expectations?

²⁴ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/67479/DFID-approach-value-money.PDF



Q1.3 What is the wider evidence in relation to accessibility, potential use and impacts on policy and practice decision-making?

Q2.1. How do potential target populations use the internet to access research information? For example:

- What proportion regularly uses the internet to find research information? What are the characteristics of users? What sites do they use to access information?
- How do they decide which portal or repository to use? To what extent do they consider the quality (research rigour) of the content they find?
- What proportion has heard of each of the DFID-funded portals and repositories under investigation? How did they hear about the research portals / repositories?
- Do they access the portal / repository through an online search facility (e.g. Google or PubMed), and/or do they go directly to them to run the search for evidence, and/or do they subscribe to "push" services such as email updates and feeds?
- What proportion regularly uses each of the portals / repositories under investigation?
- Of those who use the DFID-funded portals / repositories, what was the purpose of their recent use?
- Does the presence of interactive functions (e.g. debates, ability to comment) add value to searchable collections of information?
- If online portals and repositories did not exist, what would be the challenges to their work?
- To what extent do the potential target populations engage with portals and repositories differently? Does use of portals and repositories vary according to the development sector they work in?
- How does use of portals and repositories differ according to gender and disability?

Q2.2. What is the ease or difficulty of use of specific portals and repositories (including those funded by DFID). For example:

- Finding a specific article using each portal / repository?
- Finding adequate information/evidence on a specified topic using each portal / repository?
- Downloading information from each portal / repository?

Q2.3. How do users rate the sufficiency and quality of the research evidence which they are able to access through portals / repositories?

Q2.4. What are the challenges of Southern users accessing portals / repositories and how might these be addressed by the services?



Q3.1. To what extent do online research portals and repositories – collectively and individually - contribute to research uptake?

Q3.2. In what ways do online research portals and repositories enable research uptake that other methods of communicating research cannot? Do portals play any role in enabling users to access a body of evidence to inform their work?

Q3.3. What impacts (positive and negative) do they have, if any, and how and why do these materialise?

Q4.1. At what rates are the portals and repositories accessed relative to their costs? Does profiling of the content (e.g. summary; news story) increase use compared to having the research outputs in a repository with a search facility? Given changing usage of the internet, is it appropriate to expect that the number of visits will increase in the short and/or medium term?

Q4.2. To what extent do the portals / repositories under investigation duplicate content and to what degree is duplication useful and/or wasteful?

Q4.3. What technologies have been adopted over the last two years that have improved the service that portals / repositories provide? What technologies are emerging that may present opportunities over the next 2-5 years? How is use of these technologies affected by gender and disability?

Q4.4. Overall, what value for money does each of the DFID-funded portals and repositories present? How does this compare with other portals and repositories?

Q5.1 What are the recommendations of the evaluation team in respect of:

- Improving design and access
- Improving content and use
- Enhancing impacts on decision-making in policy and practice
- Raising value for money
- A suitable suite of monitoring statistics (webmetrics). This may include but may not be limited to cost per visitor, cost per click, cost per download, percentage of users reporting/demonstrating reading the content, percentage of users reporting/demonstrating impact on policy, programming or practice. In order to make this assessment, portals and repositories not funded by DFID will be considered.



These evaluation questions are indicative of the areas in which DFID had identified information demands. They were used in stage 1 to guide the search for what evidence currently exists. In light of the quality and quantity of evidence found and discussion between the evaluation team and the management group during stage 1, a revised set of evaluation questions has been proposed and is included as Annex X in the inception report.

B. Design and Methodology

A key challenge recognised by DFID is that the portals and repositories are internet-based with a global audience, and so it is not straightforward to identify and contact users in systematic ways to produce a high quality evaluation. None of the programmes does or can know the identity of most of their users. Nevertheless, DFID are committed to a high level of quality and rigour in the study, in line with international good practice in evaluation.

The Supplier will deliver the Services in accordance with the design and methodology presented in their proposal (Annex A) and as subsequently revised by agreement under the Concept Note (Annex B), and their inception report (Annex C), the latter taking precedent.

For the online survey, as indicated DFID recognises the likely challenges in defining the user populations, compiling one or more sample frames, sampling and securing high response rates. DFID and the Supplier have agreed that the evaluation will conduct market research with target groups with 1000 Intended Users worldwide. DFID have recruited an advisory group of research uptake specialists to identify potential participants from a range of Intended User populations, to advise on maximising response rates and offer other advice to the Supplier and DFID.

To help with consideration of user populations and proposals for compiling sample frames, sampling and securing high response rates (which may involve local, in country co-ordination and approaches), DFID have identified a number of known (intended) user groups of particular interest to us:

- Parliamentary committee clerks, or equivalent
- Parliamentary researchers, or equivalent
- Parliamentary librarians, or equivalent
- MPs' assistants, or equivalent
- Civil servants (probably more senior, such as top third of the salary scale, and recognising key ministries for potential research use, such as health, education, finance, agriculture, ministry with responsibility for civil service)
- Ministerial advisors
- Government Ministers



- Members of parliament, or equivalent
- Members of regional (sub-national) legislatures/councils
- Councillors/local council members
- Senior advisors in intergovernmental organisations (probably stratified by grade)
- Staff of think tanks (both southern and northern)
- Staff of NGOs (both southern and northern)
- Community based organisations (CBOs)
- Journalists
- Knowledge intermediaries
- Researchers/academics
- Students

• The design for stages 1 and 2 have addressed well known challenges of evaluating the communication and use of research information. These challenges include:

- Contribution/attribution: uptake of evidence is unlikely to be the only factor impacting on the changes observed. There is a lot of potential for over- or under-estimating the influence of research evidence.
- Context: the evaluation will need to draw lessons from across a wide range of countries and contexts. For this evaluation, there are particular challenges in measuring the use, value and impact of online portals and repositories due to the nature and constituency of the internet. During inception the supplier will provide a credible approach to generalisation.
- Time-lags: The duration between initial access to evidence on a portal / repository, to making some use of it and then to potential impacts on decision-making could well be lengthy.

The evaluation will focus on the communication of research evidence in a broad sense, i.e. published academic research papers; statistical databases; "established" i.e. widely debated and accepted, policy papers and positions; and evaluation findings. It is not expected systematically to encompass experiential evidence (i.e. evidence based on professional insight, skills or experience) or contextual evidence (e.g. evidence based on likely uptake or impact within a given community), though clearly these may be of relevance where portals and repositories contain such evidence, or users access other sites for these types of evidence.

Sources

Sources of data that will be used in the evaluation will, at a minimum, include:

• **Background documentation:** including DFID-funded online portal / repository business cases and the programme's proposals; annual reports and reviews.



- Literature: a document review and analysis of existing evidence and analytical frameworks relating to research communication and online portals / repositories including research/evaluations carried out in relation to international development and where appropriate, evidence generated by the private sector.
- Primary data gathered by the DFID-funded programmes to be evaluated: including webstats and other data from the programmes' monitoring frameworks and management systems.
- Secondary data, being relevant data from other sources.
- **Primary data gathered by the Evaluation team:** e.g. qualitative interviews with users, intermediaries and researchers, surveys and/or other data collection methods.

In the inception report the supplier sets out the different data sources they expect to collect and use – including types of primary data – and what weighting they plan to attribute to these data when forming their evaluation conclusions.

DFID-funded online research portal / repository programmes are aware of DFID's plans for independent external evaluation. Good levels of participation can be anticipated with regard to reasonable requests to support the evaluation.

C. Timing and Scope

The evaluation will consist of a three-month inception phase (stage one), and a nine-month implementation phase (stage 2).

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• DFID reserves the option to scale back funding depending on performance and on-going need. Specifically, the study will proceed to stage two only upon satisfactory completion of stage one (as advised by DFID's external quality assurance service) and with our agreement that proposals for stage two are both technically sound and represent good value for money.

The supplier will be responsible for arranging their own logistical arrangements. However, DFID, the DFID-funded portals and repositories, and the advisory group will provide some support with identifying and contacting key contacts.

DFID envisage that a small number of non-DFID-funded portals / repositories will be included in this evaluation. Suggestions of which portals / repositories to investigate have been discussed during inception.



The evaluation will focus on research communication for the benefit of poverty reduction in lowand middle-income countries.

C. Outputs

The Evaluation team will produce the following outputs:

- A stage one substantive report (for publication) incorporating an overarching theory of change, findings and any initial recommendations, together with methodological/statistical appendices.
- An inception Report focusing on the design on the second stage (for external quality assurance). This should include refinements/amendments of evaluation questions and full methodology; identified sources of data and risk management strategy; and communications/dissemination/uptake strategy.
- Interim report of stage 2, around November2015, containing as much data as possible to assist DFID decision-making regarding future programming.
- **Draft final report** in January 2016. This report will be commented on by DFID, with areas for revision and further analysis highlighted. The first or second draft (at DFID discretion) will be externally quality-assured.
- **Final evaluation report** for publication agreed in March 2016 comprising the full report (maximum of 150 pages with a maximum six page Executive Summary) that incorporates feedback obtained on the draft report.
- Appendices with details on the methodology, informants, etc.

D. Audience and Management Arrangements

The direct recipients of the services will be DFID's Research and Evidence Division. The published reports are expected to be of value to other donors and practitioners in the research uptake community, including those that support online portals and repositories such as Sida, the World Bank, Irish Aid and IDRC.

The evaluation will be overseen by a Management Group, who will be responsible for approving the evaluation outputs and commenting on draft reports. The management group shall comprise of:

• Rachel McIntosh and Tarah Friend from DFID's Evidence into Action team



- A DFID evaluation adviser and/or research specialist not directly involved in the DFID programmes being evaluated
- An external representative of a joint funder of one of the DFID-funded programmes.

The day-to-day point of contact for the evaluation will be Tarah Friend.

The supplier will meet quarterly with the management group, and will include up to three presentations (including one to present jointly the first substantive and inception reports; and one to present the draft final report). These meetings will take place in London, though it will be possible for more distant, key members of the evaluation team to participate by video-conference.

E. The Evaluation team

As these ToR make clear, a range of expertise will be required to deliver this evaluation. Multidisciplinarity and innovative perspectives are encouraged, provided that strong core evaluation skills are also incorporated. As securing southern perspectives is vital to this evaluation, DFID would welcome southern participation in the evaluation team.

The supplier will design, co-ordinate and draw together the evaluation findings. They will have sole responsibility for validating the data collected and ensuring an initial level of quality assurance of all outputs.

The DFID-funded online research portal programmes will seek to facilitate access to stakeholders who have direct links with the programmes, but the evaluation team will have to make direct approaches to other stakeholders and beneficiaries who are in scope of their evaluation design.

Skills and qualifications

The essential competencies and experience that the evaluation team will need in order to deliver the work are:

- Extensive knowledge and application of evaluation methods and techniques
- Strong qualitative and quantitative research skills
- Skills in measuring the impacts of research
- Expertise in internet portals including webmetrics and Web 2.0 technologies and a good understanding of relevant social media
- Strong analysis, report writing and communication skills.

Highly desirable competencies and experience are:

• A good understanding of research communication



- Relevant experience in the global South
- Expertise in assessing value for money.

For visits to case study countries, the supplier must complete the duty of care requirements.

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