
African Journals OnLine (AJOL)

A Second Internal Evaluation, 2003–2005

Print version of website:
<http://www.inasp.info/psi/ajol/evaluation2005/>

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Scientific Publications (INASP)

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This is the print version of the *African Journals OnLine (AJOL): A Second Internal Evaluation, 2003-2005* on web site

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1. Introduction

The African Journals Online (AJOL) programme was formulated by the International Network for the Availability of Scientific Publications (INASP) in order to raise the visibility of African journals, and create a greater awareness of research carried out in Africa. In line with the original funding condition, the programme was transferred to African management in August 2005, and so this report examines the development and status of the programme to the end of 2005.

1.1 Milestones of the AJOL programme

The AJOL programme began in 1997 and went live over the Internet in 1998. The project was evaluated in early 2000 and it was concluded that AJOL had succeeded in its objectives and that it should be re-launched in an expanded form. At the end of 2002 another internal evaluation was undertaken and its findings were published in 2003 (1). Recommendations made in this report led to the commissioning of a new AJOL database in March 2004 and a number of new features were included: improved search facility, consistent content loading, easier document delivery ordering system, email TOC alerts, improved statistics on registrations, statistics for each journal, facility for journals to load their own content and optional full-text loading.

After an initial, unsuccessful search for an African host in 2003, the search was begun again in 2004 with 14 applications and these were narrowed down to four. Each submitted a detailed proposal which was evaluated by a team of AJOL editors and INASP staff and then each was interviewed by INASP staff before the final selection of NISC SA was made early in 2005. The final transfer was accomplished in August 2005.

To avoid repetition, this report will begin after the period covered by the *Internal Evaluation Report 2000-2002* up to the end of 2005.

1.2 Objectives

The objectives of the programme as outlined in the *Internal Evaluation Report 2000-2002* were:

- to enable the results of research undertaken and published in Africa to become more widely known and accessible;
- to strengthen the African academic publishing sector, by providing income both through encouraging print or electronic subscriptions and through purchase of single articles;
- to assess the impact of using the Internet to promote African-published journals.

An additional objective was:

- to hand-over a sustainable and operating project to an African host at the end of the three year period.

1.3 Programme elements

The services offered by AJOL remain largely the same as those mentioned in the *Evaluation Report*, with the addition of:

- full text for all or selected articles possible at the end of 2004.

One service was removed due to lack of use:

- link to other journals about Africa but published elsewhere.

1.4 Publicity

Publicity for the programme was an on-going activity but in August 2003 a major effort was made to encourage journal editors to include information about AJOL in their journals, in their email signatures, and to publicise the service at their conferences and workshops.

Leaflets about AJOL were distributed at all training workshops organised by INASP and were sent to: Open Access Seminar (Paris), The Book Chain in Cambodia, VLIR workshop (Belgium), COREVIP (Mauritius), ZIMLA, KM and International Development (Ottawa), National Academy of Science (Canada), SCOLMA, NORAGRIC, NORAD, HIF meetings, Coherence in Agricultural Information Systems (DfID), HIPnet IT Conference, Zimbabwe International Book Fair, IFLA, AAU, ASA, SCAULWA/WALA, WSIS, SCANUL-ECS, SCECSAL, LIS-NET-ECS, CODATA, CCNY ICT workshop, ACURIL and WSIS.

1.5 Hand-over

In 2004, invitations to tender were sent out, and 14 expressions of interest were received. These were evaluated by a team consisting of three AJOL journal editors, an independent advisor, and two INASP staff. On their recommendation, four applicants were asked to provide a more detailed proposal and each of them was again evaluated, and face-to-face interviews were held with all of them. Eventually in February 2005 it was announced that NISC South Africa (Pty) Ltd would take over the management of AJOL. Unfortunately, due to difficulties and delays in setting up a not-for-profit company for AJOL, the actual transfer only occurred in August 2005.

1.6 Costs

Funding to run AJOL has come from a variety of sources during its operation, including: CTA, Danida (now RDMFA), DfID, the French Ministry of Foreign Affairs, NORAD, Sida-SAREC (now Sida), and UNESCO.

Operation costs have increased over the years as the number of journals and the number of document deliveries has increased. The only source of income for the service has been the sales of document deliveries into the developed countries. Although this has grown, it still generates little income.

The costs to the service are split into (i) management and admin, (ii) database costs, (iii) journal subscriptions and repayment of document deliveries, and (iv) publicity. The largest increase has been in the management and admin costs, as increasing time has been required to manage the growing site. The payment of journal subscriptions has decreased (relatively) over time as subscriptions to journals has started to be phased out following the 2002 evaluation (where journals suggested dropping these charges to AJOL as a step towards greater sustainability of the service).

By the end of 2005 the service was being maintained by a full time administrative position, a part-time manager (20% full time), and a finance officer (c.2% full time).

The annual costs of the service have been:

Year	Total annual cost
1999-2003	c.£200,000
2004	£98,320
2005	£95,351

2. Evaluation: purpose and methodology

The objective of this evaluation is to:

- assess the development of the service since the last evaluation in 2002;
- provide the participating journals with information about the use of their journals within the service; and
- provide a baseline of the status of the service at the end of 2005 as it moved to new management.

2.1 Data collection

Data were collected by:

- recording the number and scope of journals on the site;
- recording the number of page requests on the website;
- recording the number of page requests on the website for each journal (only available from the new database – March 2004);
- recording registered users of the service;
- recording details of document deliveries fulfilled;
- recording number of email alerts per journal (only available from the new database – March 2004);
- sending a questionnaire to registered users of the service; and
- sending a questionnaire to those who had received a document delivery from the service.

2.2 Data collection problems

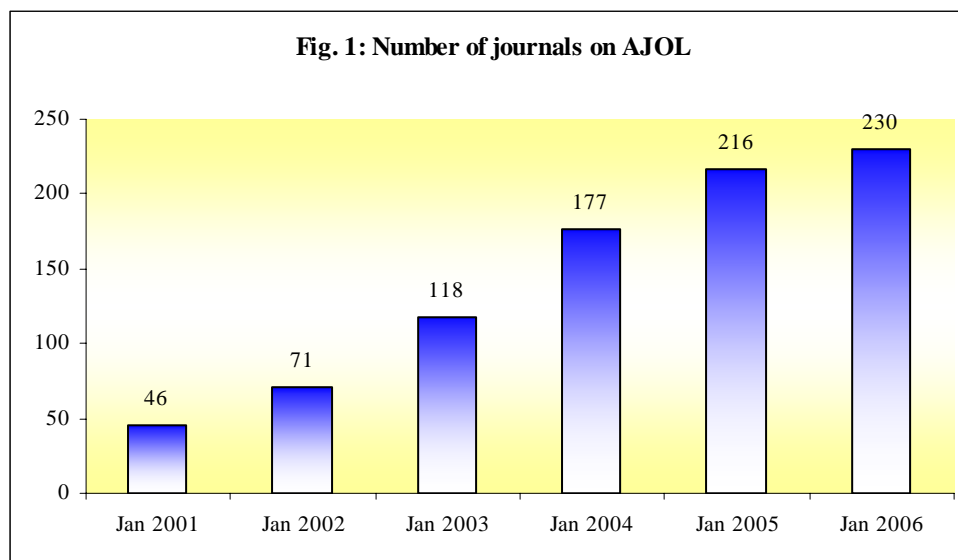
Some of the data referred to above only became available with the introduction of the new database in March 2004 and therefore there is no earlier data with which to compare it.

The information concerning page requests (or ‘hits’) on the website is notoriously difficult to determine and there have been four different methods of collecting this information between 1998 and 2005. This means that the data is not always comparable over time, although it is comparable within each period e.g. the statistics from the new database up to the time of transfer to South Africa.

3. Findings

3.1 Number and subject coverage of journals

Over the eight years of the programme, the number of journals available on the service has increased from the initial 14, to 230 in January 2006 (Fig. 1).



The 34 SABINET journals which had been added at the beginning of 2003 were removed from the service in January 2005 when SABINET terminated their agreement with AJOL. The graph suggests that only 14 journals were added to the service during 2005 when, in fact, 48 new journals were added but 34 were removed.

Togo and the Sudan now have journals on the service, so the number of countries represented has risen to 22 (Table 1).

Table 1: Number of journals per country on AJOL

Country	Number of journals on AJOL	Country	Number of journals on AJOL
Algeria	2	Malawi	3
Botswana	2	Nigeria	95
Burkina Faso	2	Senegal	6
Cameroon	3	South Africa	48
Congo, DR	1	Sudan	1
Cote d'Ivoire	3	Swaziland	3
Egypt	5	Tanzania	6
Ethiopia	7	Togo	1
Ghana	9	Uganda	5
Kenya	17	Zambia	1
Lesotho	1	Zimbabwe	9

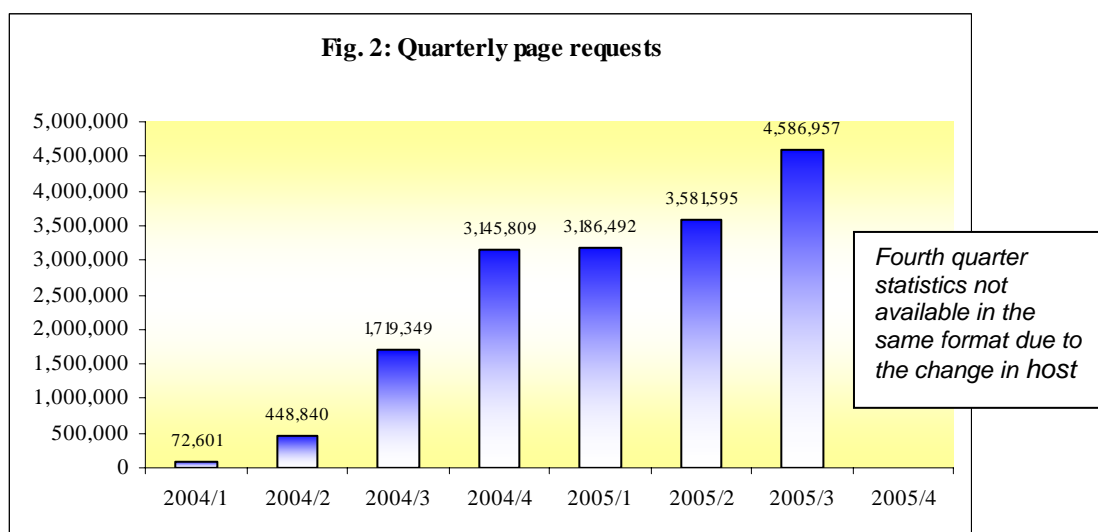
The journals were distributed among the five main subject categories and the changes between 2002 and 2005 are shown in Table 2 (they might be included in two categories so the total will not match the total number of journals). The largest increases can be seen in the Agricultural Sciences and Resource Management and in Health.

Table 2: Changes in the number of journals per category on AJOL

Category	Number of journals		% increase
	2002	2005	
Agricultural Sciences and Resource Management	13	39	200%
Arts, Culture, Language and Literature	10	19	90%
Health	29	79	172%
Science and Technology	33	65	97%
General	19	28	
Earth Sciences	0	3	
Engineering	3	5	
Food Science and Technology	3	5	
Life Sciences	5	16	
Physical Sciences	3	8	
Social Sciences	28	54	93%
General	8	13	
Anthropology, Psychology, Sociology	5	10	
Economics, Finance, Management	4	6	
Education	3	8	
Information and Communication Sciences	4	12	
Law	1	1	
Politics	3	4	
Multidisciplinary (New Category)	0	9	

3.2 Site access statistics

Recording web statistics has been notoriously difficult because of the numerous changes in the way the information is collected so that comparisons over time are almost impossible. With the new database, it has been possible to identify the number of page requests on a quarterly basis. Fig. 2 indicates a relatively small use of the new site at the beginning of 2004 and a slow down in page requests at the beginning of 2005 which was possibly caused by the removal of 34 journals from the service (See Section 3.1).



It is also possible to identify the number of hits received by each journal using the statistics made available in the new database system. This is very useful because it enables editors to observe the number of hits on their journal in comparison with the other journals on the service. It also assists in identifying what is 'good', 'moderate' and 'poor' use on the service. When ranked by the cumulative number of hits 2004-2005, the twenty most popular journals were identified (Table 3). (See Appendix 1 for the full listing.)

The most noticeable feature of Table 3 is that 18 of the top 20 journals are from Agricultural Sciences and Resource Management while only two (ranked 18 and 20) in Health. It is possible that this is partly due to the fact that the Agricultural journals are listed first on the website when grouped into categories and therefore they are possibly selected more frequently, especially by new users who are just browsing the site.

Table 3: Twenty most popular journals on the basis of hits* per journal on the website

Rank	Journal title	Country	Category	Number of hits 2004-2005§
1	African Journal of Livestock Extension	NGA	Agric.	996,382
2	Global Journal of Environmental Sciences	NGA	Agric.	696,274
3	East African Agricultural and Forestry Journal	KEN	Agric.	629,514
4	Agronomie Africaine	CIV	Agric.	600,115
5	Nigerian Journal of Animal Production	NGA	Agric.	567,634
6	African Journal of Tropical Hydrobiology and Fisheries	NGA	Agric.	509,931
7	Ghana Journal of Agricultural Science	GHA	Agric.	434,314
8	International Journal of Agriculture and Rural Development	NGA	Agric.	433,130
9	Agro-Science	NGA	Agric.	393,007
10	Journal of Agriculture and Social Research	NGA	Agric.	348,052
11	Journal of Environmental Extension	NGA	Agric.	301,422
12	Nigerian Journal of Horticultural Science	NGA	Agric.	294,977
13	African Journal of Range and Forage Science	ZAF	Agric.	292,707
14	Global Journal of Agricultural Sciences	NGA	Agric.	272,056
15	Nigerian Veterinary Journal	NGA	Agric.	267,610
16	Nigerian Agricultural Journal	NGA	Agric.	242,790
17	South African Journal of Agricultural Extension	ZAF	Agric.	237,454
18	East African Medical Journal	KEN	Health	225,808
19	African Crop Science Journal	UGA	Agric.	208,125
20	South African Medical Journal	ZAF	Health	195,825

* N.B. These figures include crawlers.

§ Figures do not include the last quarter of 2005 when data was collected in a different form.

3.3 Registrations

The AJOL website has always been open access and registration is not required in order to view the content. This means that the registrations are voluntary but they do represent those users with enough interest in AJOL to want to take the time to register, and they provide valuable information on the number and origin of users.

There was a peak in the number of registrations on the service in 2003 (Fig. 3 below), but the introduction of the new database in 2004 saw a decrease in the numbers. It is likely that this decrease was caused by a change to the system, whereby it was no longer possible for an individual to register more than once (the old system permitted multiple registrations). 2005 has seen a resurgence of registrations on the website. The cumulative number of registrations on the service since it started is now 12,206.

The geographical distribution of registrations is illustrated in Table 4. South Africa and Nigeria have been grouped together and shown separately because the number of registrations from these countries is so large that they bias the results from Africa. For the same reason, the UK has been shown separately from Europe. It is interesting to note that the number of registrations from Europe, UK and USA/Canada have declined over this period, while those for Africa, South Africa and Nigeria, and Asia are increasing. Australasia and Central and South America have remained relatively constant over the period. The aggregate registrations for 2003-5 (Fig. 4) clearly demonstrate the overwhelming importance of registrations from Africa which represent 58% of the total.

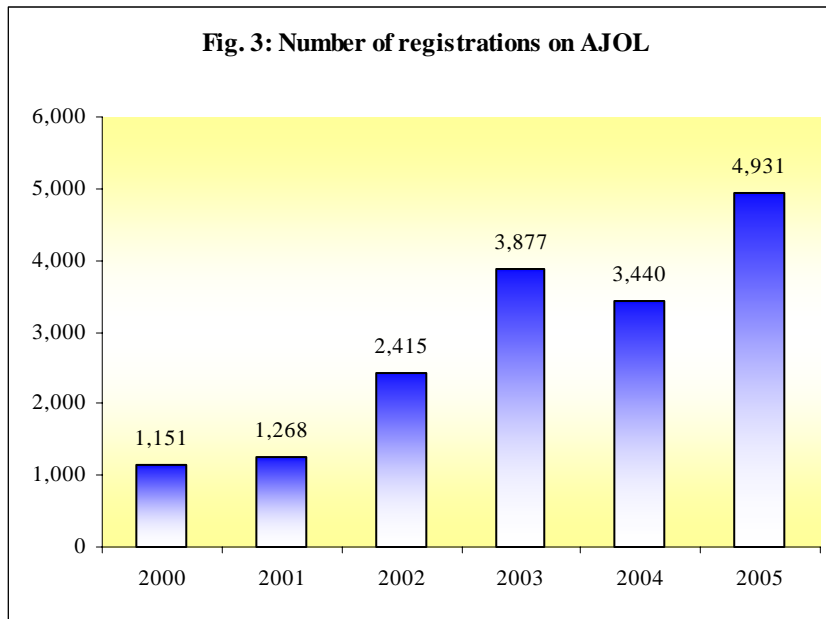
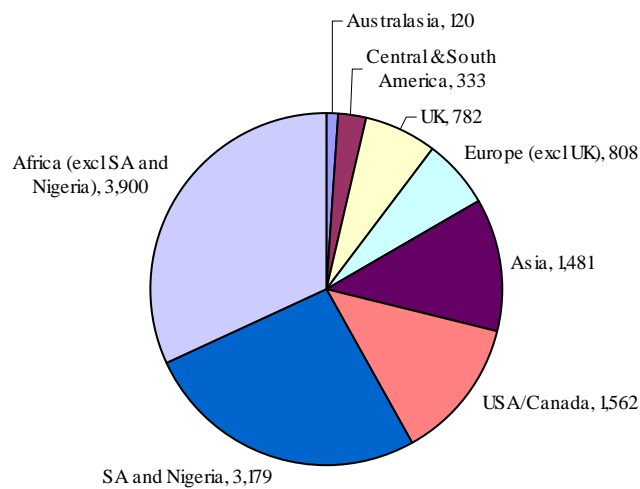


Table 4: Geographical distribution of annual registrations

Registrations by region	2003	2004	2005	2003-5
Africa (excl SA and Nigeria)	1,174	943	1,783	3,900
South Africa and Nigeria	802	1,095	1,372	3,269
Asia	319	417	745	1,481
Australasia	47	29	44	120
Central & South America	97	87	149	333
Europe (excl UK)	345	244	219	808
UK	317	234	231	782
USA/Canada	783	391	388	1,562
Total	3,884	3,440	4,931	12,255

Fig. 4: Registrations on AJOL by region 2003-5

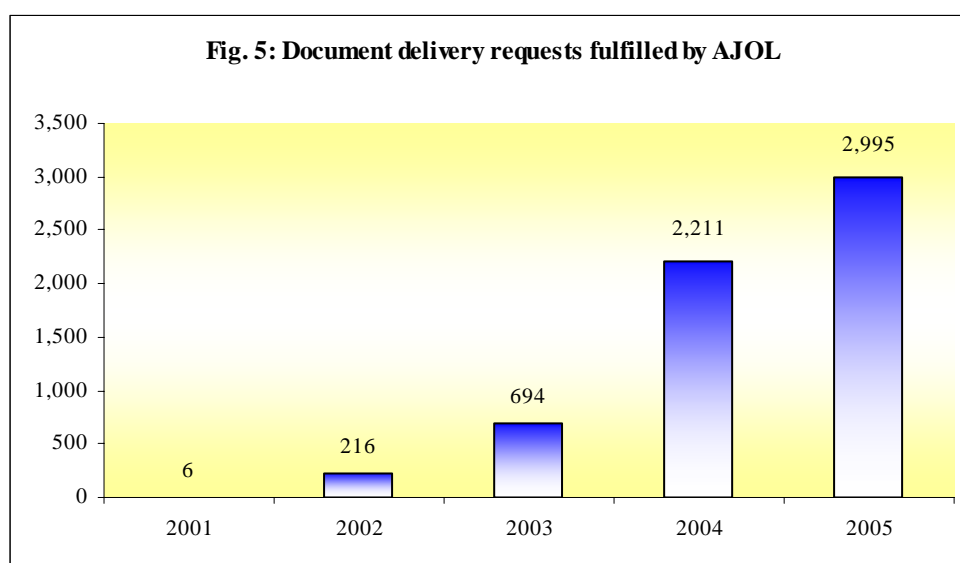


3.4 Document delivery statistics

The document delivery service, whereby users can order copies of single articles has been extremely successful on AJOL and is one of the important indicators of the actual use (and success) of the service. Whereas registration is voluntary, and therefore does not fully represent the number of visitors to the website, document delivery requests are an indication of real use of the site.

Free document deliveries, supported by the Programme for the Enhancement of Research Information (PERI), were available to all the lower and lower middle income countries according the World Bank classification, while countries in the rest of the world were required to pay. During 2003 the payment was £5.00 per article with £3.50 going back to the journal, but in March 2004 this was increased to £7.50 per article with £4.50 going back to the journal. The vast majority of payments were made by credit card over the Internet.

The summary in Fig. 5 shows the dramatic increase in the number of document deliveries during 2004 and 2005 which was a result of the introduction of the new automated ordering service on the new database. The service became so popular that restrictions had to be introduced. Firstly, during 2004, document deliveries to the country in which the requested journal is published were stopped because it was felt that requestors should support their own libraries and get the libraries to subscribe to the journals. Secondly, in 2005, deliveries were no longer made directly to students – they were asked to make their requests through their library service, thus introducing a monitoring element and involving local library staff in the process. Thirdly, stricter control was also introduced on the number of articles that could be ordered by an individual (but the policy still remained flexible so as to encourage legitimate research use of the site).

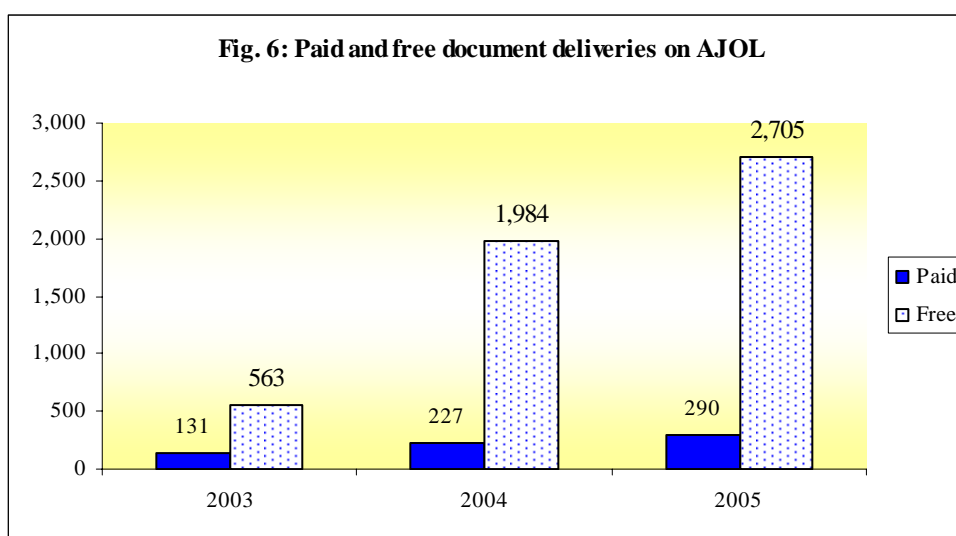


The geographical distribution of the document delivery orders (Table 5) shows the predictable result that the majority are being sent to the less developed countries in Africa, Asia and Central and South America because these are sent for free so as to make African research available to those countries which have lower incomes. It therefore illustrates an important South-South exchange of research information. 70% of the document deliveries are being sent to African countries which is very important in spreading research about the continent within the continent. There has been a very large increase in the number of articles delivered to Asia (represented particularly by India and Pakistan).

Table 5: Geographical distribution of document deliveries on AJOL

Region	2003	2004	2005	Total
Africa (excl SA and Nigeria)	302	1,007	1,426	2,735
SA and Nigeria	211	572	579	1,362
Asia	46	331	635	1,012
USA/Canada	63	120	152	335
UK	42	48	54	144
Central & South America	4	74	53	131
Europe (excl UK)	14	37	76	127
Australasia	12	22	20	54
Total	694	2,211	2,995	5,900

The split between free and paid deliveries (Fig. 6) shows that there has been an increase in the paid deliveries (which are those to the higher income countries), but it is still a very small proportion of the total. The free document deliveries represent 89% of all document deliveries



A further analysis of the document delivery information examines the number of document deliveries supplied by and delivered to each of the countries on AJOL in order to assess the research activity within each country (Table 6). The number of articles supplied by a country is directly related to the number of journals they have on the service. Nigeria and South Africa have large numbers of journals and many of the document delivery requests on the service are from these journals. Proportionally, the South African journals are requested more often than the Nigerian journals. Noteworthy is Botswana which has only two journals on the service, but a very large number of requests from them.

The articles delivered to a country are an indication of the activity of the research community.

Table 6: Document deliveries supplied by and delivered to AJOL countries

	Total articles supplied by country	No. journals on AJOL	Average no. articles supplied per journal	Articles delivered to the country
Algeria	9	2	5	24
Botswana	176	2	88	80
Burkina Faso	10	2	5	25
Cameroon	56	3	19	141
Congo	4	1	4	0
Cote d'Ivoire	1	3	>1	85
Egypt	32	5	6	205
Ethiopia	165	7	24	184
Ghana	235	9	26	514
Kenya	694	17	41	296
Lesotho	11	1	11	11
Malawi	37	3	12	64
Nigeria	1,656	95	17	1,079
Senegal	125	6	21	11
South Africa	1,908	48	40	281
Sudan	1	1	1	15
Swaziland	68	3	23	14
Tanzania	208	6	35	171
Togo	15	1	15	3
Uganda	273	5	55	132
Zambia	12	1	12	81
Zimbabwe	189	9	21	373

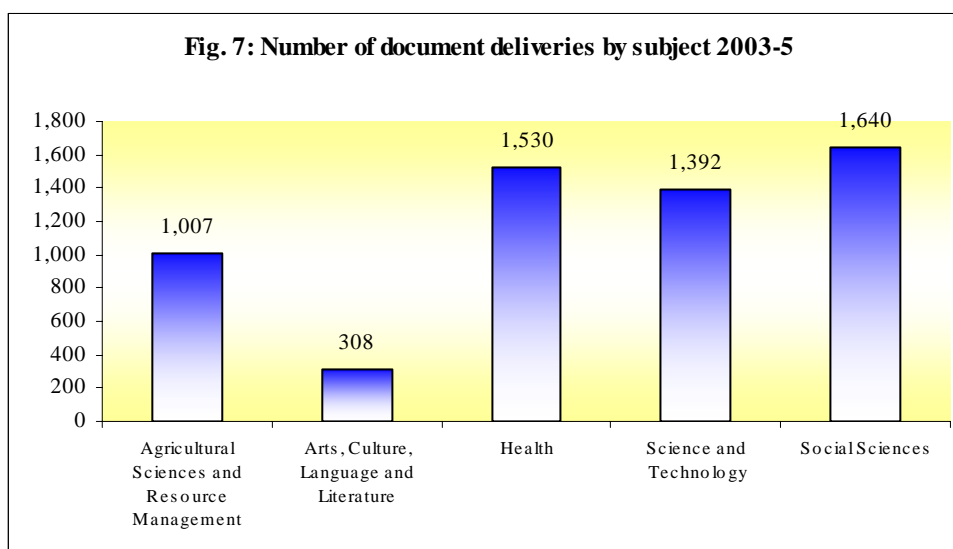
The ten most popular journals in terms of document deliveries are shown in Table 7 for 2003, 2004 and 2005. Only 10% (24) of the 230 journals on the service did not have any document deliveries at all; several of these are full text on other sites and therefore AJOL does not supply document deliveries for them, and some of the journals are very new on the service. (See Appendix 2 for a full list of document deliveries per journal.)

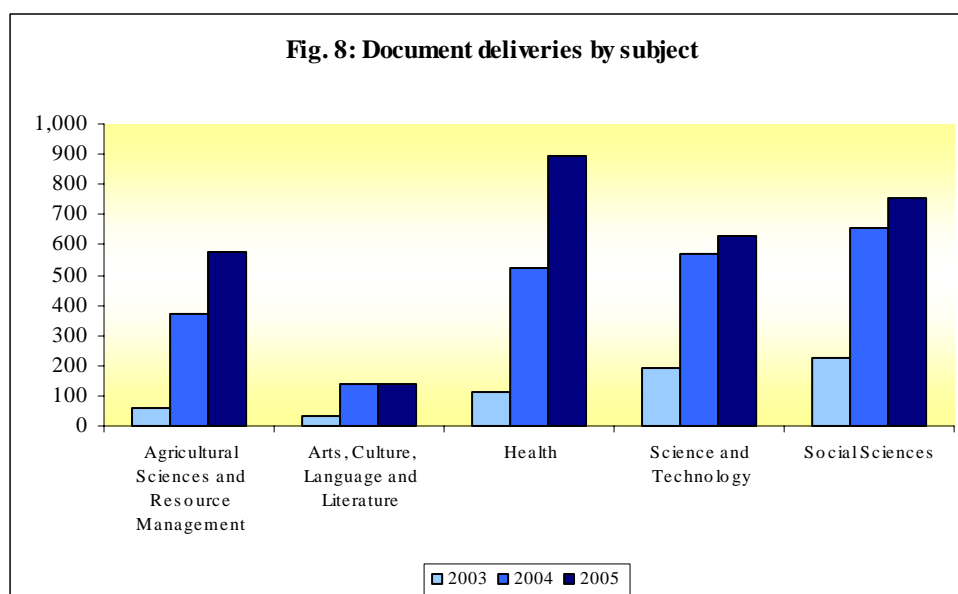
Table 7: Ten most popular journals on the basis of document deliveries 2003, 2004 and 2005

Journal	Country	Number of document deliveries
2003		
African Journal of Library, Archives & Information Science	BOT/NGA	22
South African Journal of Education	ZAF	21
African Journal of Finance and Management	TZA	20
Journal of Food Technology in Africa	KEN	20
African Journal of Reproductive Health	NGA	19
Journal of Social Development in Africa	ZWE	18
South African Medical Journal	ZAF	17
Journal of Aquatic Sciences	NGA	16
African Journal of Aquatic Science	ZAF	15
Journal of Mining and Geology	NGA	15
2004		
East African Medical Journal	KEN	111
African Journal of Library, Archives & Information Science	BWA/NGA	57
African Journal of Reproductive Health	NGA	52
South African Medical Journal	ZAF	43
African Journal of Aids Research	ZAF	40
African Journal of Aquatic Science	ZAF	39
African Crop Science Journal	UGA	38

Water SA	ZAF	37
Nigerian Journal of Natural Products and Medicine	NGA	36
South African Journal of Botany	ZAF	35
2005		
East African Medical Journal	KEN	188
South African Journal of Botany	ZAF	82
African Journal of Library, Archives & Information Science	BWA/NGA	66
African Journal of AIDS Research	ZAF	65
African Crop Science Journal	UGA	63
South African Medical Journal	ZAF	61
Nigerian Journal of Natural Products and Medicine	NGA	55
African Journal of Aquatic Science	ZAF	49
Ghana Journal of Agricultural Science	GHA	49
Africa Insight	ZAF	48

The document deliveries made over the period 2003-5 have also been analysed by subject category (Fig. 7). The greatest number of requests was from the Social Sciences, closely followed by Health and then Science and Technology. Only 5% of document deliveries were from Arts, Culture, Literature and Language. However, when the same information is divided into the component years (Fig. 8), all the categories except Arts experienced an increase in document deliveries over the three years and this increase was greatest in the Health and Agricultural categories.





3.5 Email alerts

Email alerts were introduced in March 2004 with the new database. They are a service whereby users can sign up to receive an email notification every time a new issue of a particular journal is loaded on the website. The service has been very successful, with large numbers of users signing up for a wide range of journals. The effectiveness of the service can be measured by the fact that within minutes of a new issue being published, document delivery requests are received. Email alerts therefore create awareness, provide closer contact between journals and readers, and serve to regularly draw readers back to the site. It is particularly useful for readers from countries with limited Internet access, because they do not have to keep checking the website for new issues and they are able to read the table of contents from their email without being online. The number of email alerts for a journal is another measure of the interest in the journal and use of the website because it is the measure of an action by the user rather than just a visit to a page.

There is an average of 166 email alerts per journal, but the range is from 603 for the *African Journal of Aids Research* (South Africa) to the *Plant Products Research Journal* with only 3 (only on the service for 3 months). The twenty most popular journals by email alerts are listed in Table 8 and it is interesting that seven of these journals have their full text available elsewhere on the Internet, but readers sign up for the AJOL alerts in order to be informed when new issues are available. (See Appendix 3 for the full list of email alerts per journal.) The total number of email alerts for all the journals is 38,122.

Table 8: Twenty most popular journals on the basis of email alerts

Journal	Ctry	Category	Email alerts
1 African Journal of Aids Research*	ZAF	Health	603
2 African Journal of Food, Agriculture, Nutritional and Development*	KEN	Agric.	575
3 Africa Development*	SEN	Agric.	486
4 Global Journal of Environmental Sciences	NGA	Agric.	479
5 African Journal of Science & Technology*	KEN	Sci & Tech.	475
6 East African Medical Journal	KEN	Health	466
7 African Health Sciences*	UGA	Health	447
8 South African Medical Journal *	ZAF	Health	416
9 Bio-Research	NGA	Agric.	391
10 International Journal of Agriculture and Rural Development	NGA	Agric.	389
11 Africa Insight	ZAF	Soc. Sci.	384
12 African Journal of Biotechnology*	KEN	Sci & Tech.	363
13 Journal of Agriculture and Social Research	NGA	Agric.	363
14 Annals of African Medicine	NGA	Health	358
15 West African Journal of Medicine	NGA	Health	354
16 Institute of African Studies Research Review	GHA	Soc. Sci.	350
17 African Journal of Health Sciences	KEN	Health	346
18 Central African Journal of Medicine	ZWE	Health	335
19 African Journal of Reproductive Health	NGA	Health	330
20 Global Journal of Agricultural Sciences	NGA	Agric.	324

* Journals with full-text elsewhere on the Internet.

3.6 Full text

Although there is the facility to load full text onto AJOL, only one journal (*Sahara J*) has done so and another two have included selected articles. However, 73 journals are available full-text elsewhere on the Internet, either on their own websites or on services such as Bioline, Sabinet, Ingenta or Extenza/Atypon. 24 of these are available open access.

3.7 Loading content

The editors from 40 of the AJOL journals have attended INASP training workshops to teach them how to load their own content (TOC, abstracts, full text, journal information) into the AJOL database. Unfortunately, many of them experienced difficulties when they returned to their own environments and thus only eleven of them are still loading content.

4. Characteristics of AJOL users

One questionnaire was sent to 500 of the most recently registered users and another was sent to the last 500 recipients of document deliveries. The questionnaires were sent by email, but recipients were also invited to use SurveyMonkey (www.surveymonkey.com) to respond.

4.1 User survey

Forty-nine emails were not delivered and 73 responses were received giving a response rate of 16%. The majority (69%) came from Africa and of these, 53% were from Nigeria. Other developing countries represented only 11% of the responses, while the developed countries represented 20% of the total. 71% of registered users were researchers and 22% were students. Only 7% of users were librarians possibly because their reason for using the site is more in response to a need from their clients and therefore they did not feel the need to register. This split was also an indication of the accessibility of the website to individual users without a library interface.

Among users, there was a fairly even split between those who heard about the website from a colleague (36%) and those who found the site through a Google search (30%), but the other responses to this question were also interesting because so few respondents selected them (Table 9).

Table 9: How the AJOL website was found by users

How the website was found	No.	(%) of respondents
From a colleague	26	(36%)
Google Search	22	(30%)
From INASP website	7	(10%)
Publicity material	6	(8%)
From the library	5	(7%)
Other search engine	3	(4%)
Other	4	(6%)
Total	73	(100%)

Users were asked to indicate the reasons why they had used the AJOL website, and the majority (47%) reported that they had been looking for research on a specific topic, while (35%) had been looking for research produced from Africa. A relatively small proportion (11%) was looking for research from their own country, 6% were looking for suitable journals so as to submit their research papers for publication and 1% used AJOL for all the above reasons.

Visits to the website were irregular (58%), monthly (20%), weekly (14%) or daily (6%) which ties in with the responses to the previous question where users were searching for information on a particular topic as and when the need arose. Only 4% specifically mentioned returning to the site when prompted by an email alert, but this was not one of options on the questionnaire and was only mentioned in the 'Other' category so it may not accurately represent the numbers who respond to email alerts.

The interest in particular subject areas was more or less evenly split except for the Arts which was again poorly represented as it was in terms of document deliveries (Table 10).

Table 10: Subject areas of interest to users

Subject areas of interest	No.	(%) of respondents
Agricultural Sciences and Resource Management	24	(23%)
Arts, Culture, Language and Literature	7	(7%)
Health	21	(20%)
Science and Technology	18	(18%)
Social Sciences	20	(19%)
Multidisciplinary	13	(13%)
Total	103	(100%)

Seventy eight percent of respondents had used the search facility and 86% of these said that it produced useful results. Just less than half of the respondents had signed up for an email alert which was probably part of the reason why the majority of respondents used the site irregularly, only returning when prompted by an email alert.

A quarter of users had ordered at least one document delivery and of these 39% had ordered more than once. The detailed responses concerning their use of the documents ordered were combined with those from the document delivery questionnaire because there were too few responses (18) to give meaningful results in this user survey (see section 4.2).

The website was found to be easy to use by 84% of users and 62% reported that they would recommend it to their colleagues.

Respondents were asked if they had any comments about the service and 43 (59%) responded with a wide variety of answers which were then categorised (Table 11). The majority (37%) stated that it was a good or satisfactory service and 21% made no comments. None of the respondents made completely negative comments, but perhaps those who had negative experiences either did not respond to this question or did not reply to the questionnaire at all. Several respondents used this question to make observations about things they would like to see improved and then repeated these suggestions in the next answer. For example, 14% noted that they would like the service to provide open access full text and 5% wanted all the articles to have abstracts.

Table 11: Comments about the AJOL service from users

Comments made by users about the service	No.	(%) of respondents
AJOL provides a satisfactory/good service	16	(37%)
Would like the service to be open access/full text	6	(14%)
The delivery of requested articles was prompt	3	(7%)
The abstracts for all articles should be included	2	(5%)
No comment	9	(21%)
Other	7	(16%)
Total	43	(100%)

When asked for suggestions on how to improve the service, only 35 responded, and the only clear message to come through was that users wanted open access to the full text as PDFs on the website (20%) (Table 12). However, a few respondents (5%) mentioned increasing the number of journals and the number of subject categories represented, 5% recommended that the journals should be given advice about improving the quality of articles published and 11% had problems with the organisation of the site, particularly in the ordering of articles.

Table 12: Suggestions for improvement of the service

Suggestions for improvement from users	No.	(%) of respondents
Provide PDFs/online access	7	(20%)
Provide clarity on how to join/more publicity	2	(5%)
Provide publishing advice to journals	2	(5%)
Improve/expand the subject categories	2	(5%)
Improve the organisation of the site	4	(11%)
Keep improving	3	(8%)
No comments	9	(25%)
Others	6	(17%)
Total	35	(100%)

4.2 Document delivery survey

Emails were sent to the last 500 recipients of a document delivery. Thirty-four were not delivered and 129 responses were received giving a response rate of 28%. The largest response was from Africa (70%), and 23% were from developing countries outside of Africa, but only 7% of the responses came from developed countries. 57% of the respondents were researchers, 18% were students and 14% were librarians and 11% were 'experts' or consultants.

Most of the respondents found the website for the first time by using a Google search (50%), but 23% found it from a colleague (Table 13). Only 5% found it as a result of publicity materials.

Table 13: How the AJOL website was found by those requesting document deliveries

How the website was found	No.	(%) of respondents
Google Search	64	(50%)
From a colleague	30	(23%)
Other search engine	17	(13%)
From the library	10	(8%)
Publicity material	6	(5%)
Other	2	(2%)
Total	129	(100%)

The overwhelming majority of respondents (93%) found the site easy to use. Most of the respondents visit the site irregularly (45%), but 25% visit weekly and 19% visit monthly and 5% visit daily. 6% offered 'Other' reasons which included responding to an email alert, finding the site by chance and visiting rarely.

The following analysis concerning the use of articles requested from AJOL reflects the combined responses from the user and document delivery questionnaires because the questions in this section were exactly the same and there were very few responses to this section in the user survey (section 4.1).

Articles were ordered for a variety of reasons but, fairly obviously, the majority were for research because the majority of respondents were researchers (Table 14). It is, however, interesting that 20% wanted the material for teaching purposes which is a good use of the service to enrich the quality of teaching in universities.

Table 14: Reasons for ordering an article

Reason for ordering article	No.	(%) of respondents
Own research	101	(48%)
Background reading	47	(22%)
Teaching	41	(20%)
Request by a librarian	13	(6%)
Other	9	(4%)
Total	211	(100%)

The rest of the questions about document deliveries concerned the use to which the articles had been put, and therefore where it was indicated that a librarian had ordered the article as a result of a request, the response was removed from the total.

The most articles were requested from Agricultural Sciences and Resource Management (25%), while few requests were from Arts, Culture, Language and Literature (5%), and Multi-disciplinary (8%), probably because there are relatively few journals in these categories. Articles were ordered in equal proportion from the Health, Science and Technology, and Social Sciences ($\pm 20\%$).

It is very encouraging to find that 81% of respondents found the articles they had ordered were useful. Only 3% said they were not useful, 13% found them partly useful and 3% either did not receive them or could not read the article received because it was in another language.

The questionnaires were sent to users who had recently ordered articles and therefore, in response to the question concerning the use of the information in the article, very few (7%) had already used the information, but 52% intended to use it in the next 6-12 months and 26% intended to use it in the future. Only 9% said they would not cite the reference and 6% did not understand this question.

The dissemination of the information in the articles was also measured by the circulation of the articles and 57% said that they had shared the information with colleagues, but 38% had not. When articles were sent by email, they were requested not to circulate the information further which might partially account for the rather large proportion who had not shared the information. 5% gave 'Other' replies which included sharing if others were interested, storing the article in a database and giving it to a supervisor.

The responses to the open-ended questions soliciting comments about and suggestions for the service from those receiving document deliveries were rather different from the responses in the questionnaire to users (section 4.1). When asked to comment on the service, the majority (57%) felt it was a satisfactory/good service (Table 15), but 7% would have liked the articles to be delivered as PDF email attachments.

Table 15: Comments on the AJOL service

Comments on the service	No.	(%) of respondents
AJOL is offering a good service	62	(57%)
Request for email delivery of document deliveries (PDF)	7	(7%)
Problems with document delivery (including slowness)	9	(8%)
Student access problems	3	(3%)
No comments	12	(11%)
Others	15	(14%)
Total	108	(100%)

When asked for suggestions about ways to improve the service, 14% wanted PDF email attachments and 11% wanted the articles to be full text online so 25% of respondents wanted either more electronic delivery or complete access on the web to the full text (Table 16). 13% of respondents suggested that the number of journals and the subject areas covered by the journals should be increased. A small number (3%) requested that the Journal Information be updated more frequently, and this is a problem that has also become apparent from the enquiries received in the day-to-day running of the service.

Table 16: Suggestions for improvement of the AJOL service

Suggestions for improvement	No.	(%) of respondents
Provide email document delivery of PDFs	13	(14%)
Articles should be available online to download	10	(11%)
Increase the number of journals/subject areas	12	(13%)
Improve delivery time for document delivery	3	(3%)
Update journal information more frequently	3	(3%)
No suggestions	24	(26%)
Other	28	(30%)
Total	93	(100%)

5. Discussion

5.1 Use of African journals

Research produced in African journals has been made more visible and accessible by the AJOL website. The data collected from the registrations, document deliveries and user questionnaires strongly indicates that AJOL has become established as a source of information not easily obtained from other sources.

An average of 37 journals per year have been added to the service since 2002 and a certain momentum has been established in that most of the new journals approached AJOL with requests to join whereas in the early stages of the programme, it was necessary to identify and then invite new journals onto the service. Nigeria and South Africa have tended to dominate the service because of their size and the large academic community producing many journals.

Now that it is possible to identify the number of hits on individual journals, it can be demonstrated that all the journals are being visited on the website and it is not just the more well-known journals that receive the most hits. The rise of academic interest in agricultural and environmental issues is clearly demonstrated by the large number of users visiting these journals in the last two years.

Numbers of registered users on the site has increased steadily to a total of 12,206 and, while most of them are researchers, an increasing number are students (undergraduate and postgraduate). The majority of users are in Africa and they are using the service to locate research on specific topic or research from Africa.

The success of the Internet in making African research more visible is illustrated not only in the increased use of AJOL, but also by the fact that the majority of the users found the website by using an Internet search engine. The expectation that research information will be available on the Internet has spread to researchers and students in less developed countries and it is important that AJOL has become a recognised source of African research and for most of the journals on the service it is the top of any search results.

Articles supplied by the document delivery service have increased dramatically, particularly after the introduction of the new database in 2004 which improved the website and simplified the ordering process. While most of the articles were supplied to African researchers, there was a significant increase in the number being delivered to Asian countries which is very encouraging because it illustrates the development of a South-South exchange of research information.

Despite the overall increase in the number of document deliveries, the number of paid deliveries has not increased very much so perhaps more work needs to be done in publicising the service in the more developed countries so as to increase the revenue earnings in order to make the service more sustainable. A number of respondents in the survey felt that the cost of the document deliveries to developed countries was too expensive but the sustainability of the free delivery service in the long term depends on the ability of the service to generate revenue.

5.2 Impact on journals

The journals were not specifically asked about their experiences with AJOL for this survey. However, the majority of journals joining the service during 2004-5 approached the service directly because they wanted to be included. The advantages of being showcased with other African journals are appreciated and the information about the benefits of the service seems to be spreading by word of mouth among journal publishers.

Many journals have informally reported that the number of submissions to their journals has increased, thus raising the standard of the content. This is illustrated by the following quotation from a journal editor from Ghana:

Since joining AJOL, we have been reaping tremendous benefits, including those that I least expected. AJOL's limited opportunity for online access has enabled us to reach people from around the world. We are now getting submissions from Ghanaian and African students the world over. This benefit is making it possible

for us to publish works from diverse authors. With a diverse authorship, we are now able to give our students, faculty, researchers and other readers with varied research from various perspectives.

5.3 Online access and electronic delivery

Many of the respondents to both of the user surveys requested access to the full text on AJOL, or failing that, they requested that document delivery should be made electronically, using PDFs. Although the journals had also asked in the previous evaluation for AJOL to be able to include full text on the website, only one has put their full text on the new database. Many journal editors attended workshops to learn how to load their full text, but did not subsequently do so. From comments made at these workshops, it was clear that the editors were not happy with their content being open access because of the loss of revenue from subscriptions if the content was free to download (at this time the whole of the AJOL website is open access). This creates a contradiction, because as researchers themselves, they want to be able to access other research material as full text on the web, but are not prepared to make their own journals open access.

One of the recommendations of the 2003 evaluation was that INASP should facilitate the availability of full text online for the AJOL journals and in response to this, the African Journals Online Publishing Programme (AJOPP) was developed to support a group of African-published journals to publish in full text online through a selection of hosts, most of which are access controlled. The project has not been entirely successful as described in the Programme Report (2).

Despite the negative comments made above, many journals on AJOL do have full text on their own or other websites now so the necessity for an online presence is being recognised by an increasing number of the journals.

5.4 Support to journals

As a result of the 2003 evaluation, a series of Strategic Journal Publishing workshops was organised to try and improve the quality of the journals. The materials used in the workshops are now available as a resource pack. Study tours have also been arranged for editorial staff and an attempt was made to set up a journal community but with limited success.

Some of the journals have received a substantial income from the document deliveries, but for most the income is small. As a result of the recommendations of the previous evaluation, an attempt was made to phase out the payment of subscriptions and they have not been offered to any of the journals joining the service from the beginning of 2004. At present the site is still open access and the journals do not pay anything toward the running of the service.

5.5 New services

The new database was successfully launched in 2004 and the response to this was very positive. It included a better search facility, email alerts, easier document ordering using registration information, connection to other research tools, a facility for loading full text, improved site statistics and a standardised format for all journal pages allowing easier navigation. The only one of these features which has not been used extensively is the loading of full text.

Unfortunately, although the new service does offer improved site statistics, and information about the performance of individual journals on the service is recorded, this information has not been consistently communicated to the journals. It had been hoped that an increasing number of journal editors would be trained to load their own content onto the service and thus have access to their journal statistics, but this has not happened and a new mechanism for regular reporting needs to be put in place. It is hoped that this report and the journal statistics it contains in the appendices will go some way to informing journals on their performance so far.

6. Recommendations

AJOL has secured funding up to the end of 2007, and with the transfer to new management (in Africa), a number of changes to the service are being planned by the AJOL Trust. It is therefore difficult to make recommendations about the future of the service which is now likely to change quite significantly. However, as a result of this report, several points should be noted for implementation by the AJOL Trust, or by INASP as part of overall support for African journals.

Services

- Where abstracts are used by the journals, they should always be supplied to AJOL for inclusion on the service.
- Tables of contents and Abstracts for all journals should remain open access for all journals.
- Information on the About the Journals pages should be kept up-to-date.
- The number of subject areas should be increased by including journals from new areas.
- The present categorisation of subjects should be refined.
- Journals should be informed of the usage information that can be provided and improved reporting provided as required.

Online access and electronic document delivery

- Increased familiarisation with the Open Access movement should be undertaken and journals encouraged to place full text articles on AJOL.
- Journals should be encouraged to send their articles as PDF files for ease of storage and improved document delivery.

Marketing

- Existing methods of publicity should be improved so that the service does not rely on word-of-mouth and Google searches for discovery.
- Promotion to American and European universities with African Studies departments should be developed to improve awareness and use of the document delivery service and thus improve the sustainability of the service.

Sustainability

- New methods of achieving sustainability or funding should be examined in preparation for the end of 2007 when the present funding ends.

References

1. Rosenberg, D. (2003). African Journals OnLine (AJOL): An Internal Evaluation, 2000-2002. INASP, Oxford. <http://www.inasp.info/psi/ajol/evaluation2002/report.pdf>
2. Smart, P. (2005). African Journals Online Publishing Programme (AJOPP). INASP, Oxford.

Appendix 1

Number of hits per Journal 2004-2005

Rank	Journal	Country	Number of hits 2004-5
51	Africa Development	SEN	59,182
47	Africa Insight	ZAF	62,588
19	African Crop Science Journal	UGA	208,125
119	African Environment	SEN	26,364
112	African Finance Journal	ZAF	27,310
33	African Health Sciences	UGA	81,178
42	African Journal for Physical, Health, Education, Recreation and Dance	NGA	70,058
191	African Journal for the Psychological Study of Social Issues	NGA	10,670
35	African Journal of Aids Research	ZAF	80,346
44	African Journal of Aquatic Science	ZAF	67,003
26	African Journal of Biotechnology	KEN	126,684
48	African Journal of Clinical and Experimental Microbiology	NGA	62,535
149	African Journal of Economic Policy	KEN	19,408
63	African Journal of Finance and Management	TZA	43,743
172	African Journal of Food and Nutritional Security	KEN	15,509
25	African Journal of Food, Agriculture, Nutritional and Development	KEN	127,985
120	African Journal of Health Sciences	KEN	26,340
163	African Journal of International Affairs	SEN	16,506
128	African Journal of International Affairs & Development	NGA	25,627
32	African Journal of Library, Archives & Information Science	BWA/NIG	92,274
1	African Journal of Livestock Extension	NGA	996,382
157	African Journal of Marine Science	ZAF	17,883
59	African Journal of Neurological Sciences	CIV	45,666
184	African Journal of Oral Health	NGA	12,694
159	African Journal of Oral Health Sciences	KEN	17,659
194	African Journal of Paediatric Surgery	NGA	9,738
67	African Journal of Political Science	ZAF	42,259
13	African Journal of Range and Forage Science	ZAF	292,707
28	African Journal of Reproductive Health	NGA	106,136
52	African Journal of Science & Technology	KEN	59,152
105	African Journal of Traditional, Complementary and Alternative Medicines	NGA	29,718
6	African Journal of Tropical Hydrobiology and Fisheries	UGA	509,931
27	African Journal of Urology	EGY	106,718
181	African Safety Promotion	ZAF	13,208
75	African Sociological Review	ZAF	38,161
223	Afrique Science	CIV	1,335
4	Agronomie Africaine	CIV	600,115
9	Agro-Science	NGA	393,007
102	Annales Aequatoria	CMR	30,055
70	Annals of African Medicine	NGA	41,667
196	Archives of Ibadan Medicine	NGA	8,768
197	Biokemistri	NGA	7,922
73	Bio-Research	NGA	39,457
88	Botswana Journal of Technology	BWA/NIG	33,940
177	Bulletin of Animal Health and Production in Africa	KEN	13,683
31	Bulletin of the Chemical Society of Ethiopia	ETH	93,139
224	Cameroon Journal of Agricultural Science	CMR	1,135

Rank	Journal	Country	Number of hits 2004-5
80	Central African Journal of Medicine	ZWE	36,830
93	CODESRIA Bulletin	SEN	32,072
106	Critical Arts	ZAF	29,555
204	Democracy & Development	NGA	5,694
34	Discovery and Innovation	KEN	81,102
3	East African Agricultural and Forestry Journal	KEN	629,514
18	East African Medical Journal	KEN	225,808
144	East and Central African Journal of Pharmaceutical Sciences	KEN	20,959
101	Eastern Africa Journal of Rural Development	UGA	30,081
91	Eastern Africa Social Science Research Review	ETH	32,239
57	Egyptian Journal of Biology	EGY	47,841
183	Egyptian Journal of Medical Laboratory Sciences	EGY	12,898
192	Egyptian Journal of Natural History	EGY	10,204
169	ESCARBICA Journal	ZAF	15,941
41	Ethiopian Journal of Health Development	ETH	71,638
167	Ethiopian Journal of Social Sciences and Humanities	ETH	16,077
213	Ethiopian Pharmaceutical Journal	ETH	2,664
111	Gender and Behaviour	NGA	28,378
7	Ghana Journal of Agricultural Science	GHA	434,314
209	Ghana Journal of Development Studies	GHA	3,127
117	Ghana Journal of Science	GHA	26,607
208	Ghana Library Journal	GHA	3,766
210	Global Approaches to Extension Practice	NGA	2,978
14	Global Journal of Agricultural Sciences	NGA	272,056
180	Global Journal of Educational Research	NGA	13,251
99	Global Journal of Engineering Research	NGA	30,095
2	Global Journal of Environmental Sciences	NGA	696,274
84	Global Journal of Geological Sciences	NGA	35,671
165	Global Journal of Humanities	NGA	16,219
134	Global Journal of Mathematical Sciences	NGA	24,259
92	Global Journal of Medical Sciences	NGA	32,170
21	Global Journal of Pure and Applied Sciences	NGA	161,935
114	Global Journal of Social Sciences	NGA	26,981
188	Highland Medical Research Journal	NGA	11,488
82	Humanities Review Journal	NGA	36,340
205	Huria: Journal of the Open University of Tanzania	TZA	4,624
155	Ife Journal of Science	NGA	18,599
39	IFE Psychologia	NGA	73,076
116	Indilinga: African Journal of Indigenous Knowledge Systems	ZAF	26,613
139	Innovation	ZAF	22,904
97	Institute of African Studies Research Review	GHA	30,785
8	International Journal of Agriculture and Rural Development	NGA	433,130
200	International Journal of Humanistic Studies	SWZ	7,188
126	JASSA: Journal of Applied Science in Southern Africa Zimbabwe	ZWE	25,934
96	Journal de la Recherche Scientifique de L'Universite du Lome	TGO	31,446
90	Journal des Sciences Pour l'Ingénieur	SEN	32,688
76	Journal for Language Teaching	ZAF	37,626
129	Journal for the Study of Religion	ZAF	25,495
10	Journal of Agriculture and Social Research	NGA	348,052
202	Journal of Agriculture, Forestry and the Social Sciences	NGA	6,370
146	Journal of Agriculture, Science and Technology	KEN	20,744
71	Journal of Applied Science and Technology	GHA	40,887
81	Journal of Applied Sciences & Environmental Management	NGA	36,534

Rank	Journal	Country	Number of hits 2004-5
38	Journal of Aquatic Sciences	NGA	75,666
156	Journal of Biomedical Investigation	NGA	18,169
62	Journal of Child and Adolescent Mental Health	ZAF	44,396
95	Journal of Civil Engineering Research and Practice	KEN	31,666
85	Journal of Civil Engineering, JKUAT	KEN	35,560
46	Journal of College of Medicine (Nigeria)	NGA	64,943
195	Journal of Community Medicine and Primary Health Care	NGA	9,727
86	Journal of Cultural Studies	NGA	35,428
220	Journal of Endocrinology, Metabolism and Diabetes	ZAF	1,968
11	Journal of Environmental Extension	NGA	301,422
115	Journal of Ethiopian Medical Practice	ETH	26,824
133	Journal of Experimental And Clinical Anatomy	NGA	24,356
43	Journal of Food Technology in Africa	KEN	69,901
142	Journal of Humanities	MWI	22,083
187	Journal of Librarianship and Information Science in Africa	NGA	12,081
87	Journal of Medical Investigation and Practice	NGA	33,997
221	Journal of Medical Laboratory Science	NGA	1,846
135	Journal of Medicine and Biomedical Research	NGA	23,610
162	Journal of Medicine and Medical Sciences (Nigeria)	NGA	17,219
211	Journal of Medicine in the Tropics	NGA	2,941
100	Journal of Mining and Geology	NGA	30,090
154	Journal of Modelling, Design & Management of Engineering Systems	NGA	18,647
212	Journal of Pharmaceutical and Allied Sciences	NGA	2,914
193	Journal of Pharmacy and Bioresources	NGA	10,175
150	Journal of Psychology in Africa	ZAF	19,396
153	Journal of Science and Technology	ZMB	18,938
199	Journal of Science and Technology (Ghana)	GHA	7,288
49	Journal of Social Development in Africa	ZWE	62,460
61	Journal of the Cameroon Academy of Sciences	CMR	45,382
45	Journal of the Ghana Science Association	GHA	65,580
145	Journal of the Nigerian Infection Control Association	NGA	20,772
147	Journal of Tropical Microbiology	KEN	20,451
227	Journal of Tropical Microbiology and Biotechnology	NGA	102
189	Lagos Historical Review	NGA	11,109
141	LBS Management Review	NGA	22,717
178	Malawi Journal of Science and Technology	MWI	13,666
83	Malawi Medical Journal	MWI	35,756
98	Mary Slessor Journal of Medicine	NGA	30,278
176	Mathematics Connection	GHA	13,719
148	Moor Journal of Agricultural Research	NGA	20,002
151	Nigeria Journal of Pure and Applied Physics	NGA	19,373
16	Nigerian Agricultural Journal	NGA	242,790
171	Nigerian Food Journal	NGA	15,525
5	Nigerian Journal of Animal Production	NGA	567,634
110	Nigerian Journal of Clinical and Counselling Psychology.	NGA	28,720
89	Nigerian Journal of Clinical Practice	NGA	33,846
53	Nigerian Journal of Health and Biomedical Sciences	NGA	53,302
12	Nigerian Journal of Horticultural Science	NGA	294,977
30	Nigerian Journal of Natural Products and Medicine	NGA	95,061
127	Nigerian Journal of Ophthalmology	NGA	25,677
113	Nigerian Journal of Orthopaedics and Trauma	NGA	27,130
201	Nigerian Journal of Otorhinolaryngology	NGA	6,481
77	Nigerian Journal of Paediatrics	NGA	37,364

Rank	Journal	Country	Number of hits 2004-5
222	Nigerian Journal of Pharmaceutical Research	NGA	1,358
198	Nigerian Journal of Physiological Sciences	NGA	7,415
174	Nigerian Journal of Soil Research	NGA	14,695
56	Nigerian Journal of Surgical Research.	NGA	48,514
164	Nigerian Libraries	NGA	16,495
65	Nigerian Medical Practitioner	NGA	43,479
225	Nigerian Music Review	NGA	1,053
55	Nigerian Quarterly Journal of Hospital Medicine	NGA	49,152
15	Nigerian Veterinary Journal	NGA	267,610
158	Obstetrics and Gynaecology Forum	ZAF	17,800
104	Orient Journal of Medicine	NGA	29,808
215	OriOn: The Journal of ORSSA	ZAF	2,484
60	Ostrich: Journal of African Ornithology	ZAF	45,636
132	Philosophical Papers	ZAF	24,422
226	Plant Products Research Journal	NGA	613
58	Quaestiones Mathematicae	ZAF	45,782
161	Review of Southern African Studies	LSO	17,226
166	Revue Burkinabè de droit	BFA	16,166
79	Revue d'Information Scientifique et Technique	DZA	36,969
131	SAFERE: Southern African Feminist Review	ZWE	24,774
109	SAHARA J	ZAF	29,079
72	Sahel Medical Journal	NGA	40,428
124	Scientific Medical Journal	EGY	26,106
50	SINET: Ethiopian Journal of Science	ETH	61,827
160	South African Actuarial Journal	ZAF	17,237
78	South African Family Practice	ZAF	37,181
185	South African Gastroenterology Review	ZAF	12,500
54	South African Journal for Research in Sport, Physical Education and Recreation	ZAF	50,854
17	South African Journal of Agricultural Extension	ZAF	237,454
22	South African Journal of Botany	ZAF	152,546
218	South African Journal of Clinical Nutrition	ZAF	2,268
64	South African Journal of Education	ZAF	43,545
36	South African Journal of Higher Education	ZAF	80,338
179	South African Journal of Musicology	ZAF	13,642
217	South African Journal of Obstetrics and Gynaecology	ZAF	2,426
182	South African Journal of Philosophy	ZAF	13,144
219	South African Journal of Psychiatry	ZAF	2,057
216	South African Journal of Radiology	ZAF	2,481
168	South African Journal of Sports Medicine	ZAF	15,952
206	South African Journal of Surgery	ZAF	4,299
20	South African Medical Journal	ZAF	195,825
152	South African Psychiatry Review	ZAF	19,311
24	Southern African Forestry Journal	ZAF	132,737
173	Southern African Journal of Anaesthesia and Analgesia	ZAF	14,890
207	Southern African Journal of HIV Medicine	ZAF	4,220
69	Southern African Linguistics and Applied Language Studies	ZAF	41,921
186	Sud Sciences et Technologies	BFA	12,139
203	Sudanese Journal of Dermatology	SDN	6,355
118	Tanzania Health Research Bulletin	TZA	26,471
68	Tanzania Journal of Science	TZA	42,237
175	Technologies Avancées	DZA	14,484
103	The African Anthropologist	CMR	30,014
190	The Information Technologist	NGA	10,704

Rank	Journal	Country	Number of hits 2004-5
122	The Uganda Journal	UGA	26,252
143	Transactions of the Zimbabwe Scientific Association	ZWE	20,972
130	Tropical Freshwater Biology	NGA	25,427
121	Tropical Journal of Animal Science	NGA	26,266
170	Tropical Journal of Medical Research	NGA	15,760
40	Tropical Journal of Obstetrics and Gynaecology	NGA	72,508
136	Tropical Journal of Pharmaceutical Research	NGA	23,604
37	Tropical Veterinarian	NGA	79,377
140	Tydskrif vir letterkunde	ZAF	22,828
66	UNISWA Journal of Agriculture	SWZ	42,905
74	UNISWA Research Journal of Agriculture, Science and Technology	SWZ	38,313
123	University of Dar es Salaam Library Journal	TZA	26,128
29	Water SA	ZAF	95,536
23	West African Journal of Medicine	NGA	145,063
94	West African Journal of Pharmacology and Drug Research	NGA	32,027
214	West African Journal of Radiology	NGA	2,511
108	Western Indian Ocean Journal of Marine Sciences	TZA	29,228
125	Zambezia: The Journal of Humanities of the University of Zimbabwe.	ZWE	25,997
137	Zimbabwe Journal of Educational Research	ZWE	23,596
138	Zimbabwe Science News	ZWE	23,544
107	Zimbabwe Veterinary Journal	ZWE	29,271

Appendix 2

Document deliveries per journal 2003-5

Rank	Journal	Country	2003	2004	2005	Total docdel
76	Africa Development	SEN	1	11	11	23
18	Africa Insight	ZAF	8	16	48	72
5	African Crop Science Journal	UGA	12	38	63	113
118	African Environment	SEN	1	6	5	12
40	African Finance Journal	ZAF	10	12	17	39
11	African Health Sciences	UGA	7	29	48	84
19	African Journal for Physical, Health, Education, Recreation and Dance	NGA	11	26	35	72
129	African Journal for the Psychological Study of Social Issues	NGA	0	0	10	10
6	African Journal of Aids Research	ZAF	8	40	65	113
7	African Journal of Aquatic Science	ZAF	15	39	49	103
187	African Journal of Biotechnology	KEN	0	2	0	2
36	African Journal of Clinical and Experimental Microbiology	NGA	7	17	18	42
66	African Journal of Economic Policy	KEN	0	12	14	26
13	African Journal of Finance and Management	TZA	20	19	43	82
124	African Journal of Food and Nutritional Security	KEN	4	7	0	11
80	African Journal of Food, Agriculture, Nutritional and Development	KEN	8	14	0	22
92	African Journal of Health Sciences	KEN	0	4	16	20
130	African Journal of International Affairs	SEN	0	4	6	10
62	African Journal of International Affairs & Development	NGA	7	14	6	27
2	African Journal of Library, Archives & Information Science	BWA/NIG	22	57	66	145
42	African Journal of Livestock Extension	NGA	0	7	30	37
125	African Journal of Marine Science	ZAF	0	0	11	11
119	African Journal of Neurological Sciences	CIV	0	0	12	12
207	African Journal of Oral Health	NGA	0	0	0	0
168	African Journal of Oral Health Sciences	KEN	0	0	4	4
151	African Journal of Paediatric Surgery	NGA	0	0	6	6
23	African Journal of Political Science	ZAF	4	24	33	61
39	African Journal of Range and Forage Science	ZAF	1	16	23	40
9	African Journal of Reproductive Health	NGA	19	52	27	98
126	African Journal of Science & Technology	KEN	3	8	0	11
208	African Journal of Traditional, Complementary and Alternative Medicines	NGA	0	0	0	0
34	African Journal of Tropical Hydrobiology and Fisheries	UGA	6	20	17	43
77	African Journal of Urology	EGY	1	1	21	23
209	African Safety Promotion	ZAF	0	0	0	0
30	African Sociological Review	ZAF	3	22	22	47
210	Afrique Science	CIV	0	0	0	0
188	Agronomie Africaine	CIV	0	2	0	2
141	Agro-Science	NGA	0	5	3	8
169	Annales Aequatoria	CMR	0	4	0	4
131	Annals of African Medicine	NGA	0	2	8	10
211	Archives of Ibadan Medicine	NGA	0	0	0	0
212	Biokemistri	NGA	0	0	0	0
102	Bio-Research	NGA	0	7	10	17
44	Botswana Journal of Technology	BWA/NIG	2	13	19	34
142	Bulletin of Animal Health and Production in Africa	KEN	0	0	8	8
25	Bulletin of the Chemical Society of Ethiopia	ETH	0	19	38	57
195	Cameroon Journal of Agricultural Science	CMR	0	0	1	1

Rank	Journal	Country	2003	2004	2005	Total docdel
78	Central African Journal of Medicine	ZWE	2	14	7	23
48	CODESRIA Bulletin	SEN	5	15	12	32
53	Critical Arts	ZAF	9	16	6	31
213	Democracy & Development	NGA	0	0	0	0
15	Discovery and Innovation	KEN	5	32	40	77
37	East African Agricultural and Forestry Journal	KEN	0	9	33	42
1	East African Medical Journal	KEN	12	111	188	311
69	East and Central African Journal of Pharmaceutical Sciences	KEN	0	6	19	25
45	Eastern Africa Journal of Rural Development	UGA	0	9	25	34
61	Eastern Africa Social Science Research Review	ETH	0	14	14	28
170	Egyptian Journal of Biology	EGY	0	3	1	4
214	Egyptian Journal of Medical Laboratory Sciences	EGY	0	0	0	0
215	Egyptian Journal of Natural History	EGY	0	0	0	0
70	ESCARBICA Journal	ZAF	0	6	19	25
49	Ethiopian Journal of Health Development	ETH	1	13	18	32
107	Ethiopian Journal of Social Sciences and Humanities	ETH	0	0	14	14
189	Ethiopian Pharmaceutical Journal	ETH	0	0	2	2
127	Gender and Behaviour	NGA	2	7	2	11
17	Ghana Journal of Agricultural Science	GHA	2	22	49	73
152	Ghana Journal of Development Studies	GHA	0	0	6	6
63	Ghana Journal of Science	GHA	3	7	17	27
160	Ghana Library Journal	GHA	0	0	5	5
196	Global Approaches to Extension Practice	NGA	0	0	1	1
33	Global Journal of Agricultural Sciences	NGA	3	10	31	44
139	Global Journal of Educational Research	NGA	0	2	7	9
93	Global Journal of Engineering Research	NGA	0	7	13	20
26	Global Journal of Environmental Sciences	NGA	8	14	35	57
94	Global Journal of Geological Sciences	NGA	4	7	9	20
79	Global Journal of Humanities	NGA	0	0	23	23
97	Global Journal of Mathematical Sciences	NGA	2	3	13	18
132	Global Journal of Medical Sciences	NGA	0	3	7	10
10	Global Journal of Pure and Applied Sciences	NGA	13	32	47	92
57	Global Journal of Social Sciences	NGA	3	14	13	30
161	Highland Medical Research Journal	NGA	0	0	5	5
50	Humanities Review Journal	NGA	10	17	5	32
216	Huria: Journal of the Open University of Tanzania	TZA	0	0	0	0
153	Ife Journal of Science	NGA	0	0	6	6
31	IFE PsychologIA	NGA	4	22	21	47
27	Indilinga: African Journal of Indigenous Knowledge Systems	ZAF	5	22	29	56
87	Innovation	ZAF	4	8	9	21
81	Institute of African Studies Research Review	GHA	0	7	15	22
88	International Journal of Agriculture and Rural Development	NGA	1	10	10	21
154	International Journal of Humanistic Studies	SWZ	0	0	6	6
133	JASSA: Journal of Applied Science in Southern Africa Zimbabwe	ZWE	0	3	7	10
108	Journal de la Recherche Scientifique de L'Universite du Lome	TGO	1	4	9	14
155	Journal des Sciences Pour l'Ingénieur	SEN	0	2	4	6
46	Journal for Language Teaching	ZAF	1	15	17	33
89	Journal for the Study of Religion	ZAF	4	11	6	21
64	Journal of Agriculture and Social Research	NGA	0	3	24	27
197	Journal of Agriculture, Forestry and the Social Sciences	NGA	0	0	1	1
90	Journal of Agriculture, Science and Technology	KEN	0	1	20	21
43	Journal of Applied Science and Technology	GHA	6	16	15	37
98	Journal of Applied Sciences & Environmental Management	NGA	2	8	8	18

Rank	Journal	Country	2003	2004	2005	Total docdel
12	Journal of Aquatic Sciences	NGA	16	29	39	84
190	Journal of Biomedical Investigation	NGA	0	0	2	2
54	Journal of Child and Adolescent Mental Health	ZAF	1	5	25	31
162	Journal of Civil Engineering Research and Practice	KEN	0	3	2	5
82	Journal of Civil Engineering, JKUAT	KEN	4	13	5	22
109	Journal of College of Medicine (Nigeria)	NGA	2	5	7	14
145	Journal of Community Medicine and Primary Health Care	NGA	0	0	7	7
32	Journal of Cultural Studies	NGA	3	23	20	46
217	Journal of Endocrinology, Metabolism and Diabetes	ZAF	0	0	0	0
67	Journal of Environmental Extension	NGA	7	13	6	26
198	Journal of Ethiopian Medical Practice	ETH	0	0	1	1
181	Journal of Experimental And Clinical Anatomy	NGA	0	0	3	3
22	Journal of Food Technology in Africa	KEN	20	27	17	64
110	Journal of Humanities	MWI	1	7	5	13
73	Journal of Librarianship and Information Science in Africa	NGA	4	11	9	24
171	Journal of Medical Investigation and Practice	NGA	0	0	4	4
218	Journal of Medical Laboratory Science	NGA	0	0	0	0
172	Journal of Medicine and Biomedical Research	NGA	0	3	1	4
219	Journal of Medicine and Medical Sciences (Nigeria)	NGA	0	0	0	0
199	Journal of Medicine in the Tropics	NGA	0	0	1	1
96	Journal of Mining and Geology	NGA	15	3	1	19
146	Journal of Modelling, Design & Management of Engineering Systems	NGA	0	4	3	7
220	Journal of Pharmaceutical and Allied Sciences	NGA	0	0	0	0
156	Journal of Pharmacy and Bioresources	NGA	0	0	6	6
103	Journal of Psychology in Africa	ZAF	0	2	14	16
120	Journal of Science and Technology	ZMB	1	3	8	12
147	Journal of Science and Technology (Ghana)	GHA	0	0	7	7
16	Journal of Social Development in Africa	ZWE	18	29	30	77
221	Journal of Technology and Education in Nigeria	NGA			0	0
55	Journal of the Cameroon Academy of Sciences	CMR	5	13	13	31
41	Journal of the Ghana Science Association	GHA	1	21	17	39
163	Journal of the Nigerian Infection Control Association	NGA	0	4	1	5
121	Journal of Tropical Microbiology	KEN	0	1	11	12
222	Journal of Tropical Microbiology and Biotechnology	NGA	0	0	0	0
223	Lagos Historical Review	NGA	0	0	0	0
173	Lagos Journal of Library and Information Science	NGA			4	4
99	LBS Management Review	NGA	3	5	10	18
224	Malawi Journal of Science and Technology	MWI	0	0	0	0
74	Malawi Medical Journal	MWI	3	12	9	24
182	Mary Slessor Journal of Medicine	NGA	0	1	2	3
134	Mathematics Connection	GHA	4	3	3	10
105	Moor Journal of Agricultural Research	NGA	0	0	15	15
191	Nigeria Journal of Pure and Applied Physics	NGA	0	0	2	2
100	Nigerian Agricultural Journal	NGA	2	10	6	18
164	Nigerian Food Journal	NGA	0	0	5	5
91	Nigerian Journal of Animal Production	NGA	0	13	8	21
225	Nigerian Journal of Chemical Research	NGA			0	0
135	Nigerian Journal of Clinical and Counselling Psychology.	NGA	1	4	5	10
140	Nigerian Journal of Clinical Practice	NGA	1	0	8	9
165	Nigerian Journal of Health and Biomedical Sciences	NGA	1	1	3	5
51	Nigerian Journal of Horticultural Science	NGA	1	8	23	32
8	Nigerian Journal of Natural Products and Medicine	NGA	8	36	55	99
136	Nigerian Journal of Ophthalmology	NGA	0	9	1	10

Rank	Journal	Country	2003	2004	2005	Total docdel
104	Nigerian Journal of Orthopaedics and Trauma	NGA	0	1	15	16
148	Nigerian Journal of Otorhinolaryngology	NGA	0	0	7	7
143	Nigerian Journal of Paediatrics	NGA	0	3	5	8
226	Nigerian Journal of Pharmaceutical Research	NGA	0	0	0	0
200	Nigerian Journal of Physiological Sciences	NGA	0	0	1	1
174	Nigerian Journal of Soil Research	NGA	0	0	4	4
111	Nigerian Journal of Surgical Research.	NGA	2	4	7	13
71	Nigerian Libraries	NGA	2	11	12	25
112	Nigerian Medical Practitioner	NGA	0	4	9	13
227	Nigerian Music Review	NGA	0	0	0	0
122	Nigerian Quarterly Journal of Hospital Medicine	NGA	0	6	6	12
83	Nigerian Veterinary Journal	NGA	0	2	20	22
113	Obstetrics and Gynaecology Forum	ZAF	0	0	13	13
183	Orient Journal of Medicine	NGA	0	1	2	3
228	OriOn: The Journal of ORSSA	ZAF	0	0	0	0
72	Ostrich: Journal of African Ornithology	ZAF	1	13	11	25
114	Philosophical Papers	ZAF	0	3	10	13
201	Plant Products Research Journal	NGA	0	0	1	1
95	Quaestiones Mathematicae	ZAF	6	2	12	20
128	Review of Southern African Studies	LSO	0	7	4	11
157	Revue Burkinabè de droit	BFA	0	0	6	6
144	Revue d'Information Scientifique et Technique	DZA	0	2	6	8
137	SAFERE: Southern African Feminist Review	ZWE	6	3	1	10
175	SAHARA J	ZAF	0	1	3	4
123	Sahel Medical Journal	NGA	0	6	6	12
166	Scientific Medical Journal	EGY	0	1	4	5
52	SINET: Ethiopian Journal of Science	ETH	2	5	25	32
115	South African Actuarial Journal	ZAF	4	2	7	13
84	South African Family Practice	ZAF	1	2	19	22
192	South African Gastroenterology Review	ZAF	0	2	0	2
58	South African Journal for Research in Sport, Physical Education and Recreation	ZAF	3	15	12	30
24	South African Journal of Agricultural Extension	ZAF	2	25	32	59
3	South African Journal of Botany	ZAF	6	35	82	123
229	South African Journal of Clinical Nutrition	ZAF	0	0	0	0
20	South African Journal of Education	ZAF	21	34	13	68
14	South African Journal of Higher Education	ZAF	6	28	47	81
149	South African Journal of Musicology	ZAF	2	4	1	7
176	South African Journal of Obstetrics and Gynaecology	ZAF	0	0	4	4
184	South African Journal of Philosophy	ZAF	0	0	3	3
193	South African Journal of Psychiatry	ZAF	0	0	2	2
177	South African Journal of Radiology	ZAF	0	0	4	4
185	South African Journal of Sports Medicine	ZAF	0	0	3	3
167	South African Journal of Surgery	ZAF	0	0	5	5
4	South African Medical Journal	ZAF	17	43	61	121
150	South African Psychiatry Review	ZAF	0	0	7	7
29	Southern African Forestry Journal	ZAF	2	26	22	50
138	Southern African Journal of Anaesthesia and Analgesia	ZAF	0	0	10	10
202	Southern African Journal of HIV Medicine	ZAF	0	0	1	1
60	Southern African Linguistics and Applied Language Studies	ZAF	1	9	19	29
178	Sud Sciences et Technologies	BFA	0	3	1	4
203	Sudanese Journal of Dermatology	SDN	0	0	1	1
116	Tanzania Health Research Bulletin	TZA	9	3	1	13
35	Tanzania Journal of Science	TZA	0	27	16	43

Rank	Journal	Country	2003	2004	2005	Total docdel
230	Technologies Avancées	DZA	0	0	0	0
158	The African Anthropologist	CMR	0	0	6	6
85	The Information Technologist	NGA	0	0	22	22
204	The Uganda Journal	UGA	0	1	0	1
159	Transactions of the Zimbabwe Scientific Association	ZWE	0	1	5	6
65	Tropical Freshwater Biology	NGA	8	14	5	27
68	Tropical Journal of Animal Science	NGA	0	8	18	26
186	Tropical Journal of Medical Research	NGA	0	1	2	3
75	Tropical Journal of Obstetrics and Gynaecology	NGA	3	8	13	24
194	Tropical Journal of Pharmaceutical Research	NGA	0	2	0	2
106	Tropical Veterinarian	NGA	0	8	7	15
205	Tydskrif vir letterkunde	ZAF	0	0	1	1
59	UNISWA Journal of Agriculture	SWZ	0	16	14	30
47	UNISWA Research Journal of Agriculture, Science and Technology	SWZ	5	18	10	33
21	University of Dar es Salaam Library Journal	TZA	3	27	36	66
38	Water SA	ZAF	2	37	3	42
28	West African Journal of Medicine	NGA	0	14	40	54
56	West African Journal of Pharmacology and Drug Research	NGA	0	9	22	31
206	West African Journal of Radiology	NGA	0	0	1	1
179	Western Indian Ocean Journal of Marine Sciences	TZA	0	4	0	4
117	Zambezia: The Journal of Humanities of the University of Zimbabwe.	ZWE	0	4	9	13
86	Zimbabwe Journal of Educational Research	ZWE	1	1	20	22
180	Zimbabwe Science News	ZWE	1	1	2	4
101	Zimbabwe Veterinary Journal	ZWE	1	3	14	18

Appendix 3

Email alerts per journal 2004-5

Rank	Journal	Country	Email alerts
3	Africa Development	SEN	486
11	Africa Insight	ZAF	384
21	African Crop Science Journal	UGA	317
44	African Environment	SEN	267
62	African Finance Journal	ZAF	229
7	African Health Sciences	UGA	447
129	African Journal for Physical, Health, Education, Recreation and Dance	NGA	139
192	African Journal for the Psychological Study of Social Issues	NGA	54
1	African Journal of Aids Research	ZAF	603
105	African Journal of Aquatic Science	ZAF	157
12	African Journal of Biotechnology	KEN	363
55	African Journal of Clinical and Experimental Microbiology	NGA	241
29	African Journal of Economic Policy	KEN	292
51	African Journal of Finance and Management	TZA	254
41	African Journal of Food and Nutritional Security	KEN	269
2	African Journal of Food, Agriculture, Nutritional and Development	KEN	575
17	African Journal of Health Sciences	KEN	346
43	African Journal of International Affairs	SEN	268
22	African Journal of International Affairs & Development	NGA	317
63	African Journal of Library, Archives & Information Science	BWA/NIG	221
46	African Journal of Livestock Extension	NGA	261
194	African Journal of Marine Science	ZAF	47
101	African Journal of Neurological Sciences	CIV	162
176	African Journal of Oral Health	NGA	78
156	African Journal of Oral Health Sciences	KEN	97
169	African Journal of Paediatric Surgery	NGA	83
25	African Journal of Political Science	ZAF	309
91	African Journal of Range and Forage Science	ZAF	174
19	African Journal of Reproductive Health	NGA	330
5	African Journal of Science & Technology	KEN	475
59	African Journal of Traditional, Complementary and Alternative Medicines	NGA	234
100	African Journal of Tropical Hydrobiology and Fisheries	UGA	166
123	African Journal of Urology	EGY	144
213	African Safety Promotion	ZAF	25
61	African Sociological Review	ZAF	232
225	Afrique Science	CIV	7
95	Agronomie Africaine	CIV	171
48	Agro-Science	NGA	258
193	Annales Aequatoria	CMR	54
14	Annals of African Medicine	NGA	358
191	Archives of Ibadan Medicine	NGA	57
206	Biokemistri	NGA	32
9	Bio-Research	NGA	391
78	Botswana Journal of Technology	BWA/NIG	190
187	Bulletin of Animal Health and Production in Africa	KEN	68
178	Bulletin of the Chemical Society of Ethiopia	ETH	77
219	Cameroon Journal of Agricultural Science	CMR	14
18	Central African Journal of Medicine	ZWE	335
31	CODESRIA Bulletin	SEN	285
107	Critical Arts	ZAF	156

Rank	Journal	Country	Email alerts
174	Democracy & Development	NGA	80
47	Discovery and Innovation	KEN	261
37	East African Agricultural and Forestry Journal	KEN	273
6	East African Medical Journal	KEN	466
97	East and Central African Journal of Pharmaceutical Sciences	KEN	169
28	Eastern Africa Journal of Rural Development	UGA	293
40	Eastern Africa Social Science Research Review	ETH	271
145	Egyptian Journal of Biology	EGY	118
115	Egyptian Journal of Medical Laboratory Sciences	EGY	151
189	Egyptian Journal of Natural History	EGY	64
171	ESCARBICA Journal	ZAF	81
86	Ethiopian Journal of Health Development	ETH	181
76	Ethiopian Journal of Social Sciences and Humanities	ETH	199
218	Ethiopian Pharmaceutical Journal	ETH	15
26	Gender and Behaviour	NGA	297
39	Ghana Journal of Agricultural Science	GHA	272
198	Ghana Journal of Development Studies	GHA	43
54	Ghana Journal of Science	GHA	242
210	Ghana Library Journal	GHA	27
212	Global Approaches to Extension Practice	NGA	26
20	Global Journal of Agricultural Sciences	NGA	324
60	Global Journal of Educational Research	NGA	233
124	Global Journal of Engineering Research	NGA	142
4	Global Journal of Environmental Sciences	NGA	479
143	Global Journal of Geological Sciences	NGA	119
87	Global Journal of Humanities	NGA	181
175	Global Journal of Mathematical Sciences	NGA	79
53	Global Journal of Medical Sciences	NGA	246
56	Global Journal of Pure and Applied Sciences	NGA	241
23	Global Journal of Social Sciences	NGA	315
195	Highland Medical Research Journal	NGA	47
65	Humanities Review Journal	NGA	214
205	Huria: Journal of the Open University of Tanzania	TZA	33
118	Ife Journal of Science	NGA	146
147	IFE Psychologia	NGA	113
73	Indilinga: African Journal of Indigenous Knowledge Systems	ZAF	201
82	Innovation	ZAF	185
16	Institute of African Studies Research Review	GHA	350
10	International Journal of Agriculture and Rural Development	NGA	389
170	International Journal of Humanistic Studies	SWZ	82
89	JASSA: Journal of Applied Science in Southern Africa Zimbabwe	ZWE	175
159	Journal de la Recherche Scientifique de L'Universite du Lome	TGO	94
197	Journal des Sciences Pour l'Ingénieur	SEN	44
117	Journal for Language Teaching	ZAF	148
85	Journal for the Study of Religion	ZAF	183
13	Journal of Agriculture and Social Research	NGA	363
162	Journal of Agriculture, Forestry and the Social Sciences	NGA	92
24	Journal of Agriculture, Science and Technology	KEN	310
32	Journal of Applied Science and Technology	GHA	285
30	Journal of Applied Sciences & Environmental Management	NGA	288
134	Journal of Aquatic Sciences	NGA	134
126	Journal of Biomedical Investigation	NGA	141
72	Journal of Child and Adolescent Mental Health	ZAF	202
172	Journal of Civil Engineering Research and Practice	KEN	81
168	Journal of Civil Engineering, JKUAT	KEN	84
57	Journal of College of Medicine (Nigeria)	NGA	239

Rank	Journal	Country	Email alerts
150	Journal of Community Medicine and Primary Health Care	NGA	109
38	Journal of Cultural Studies	NGA	273
202	Journal of Endocrinology, Metabolism and Diabetes	ZAF	38
70	Journal of Environmental Extension	NGA	203
135	Journal of Ethiopian Medical Practice	ETH	130
136	Journal of Experimental And Clinical Anatomy	NGA	130
52	Journal of Food Technology in Africa	KEN	248
64	Journal of Humanities	MWI	218
77	Journal of Librarianship and Information Science in Africa	NGA	194
108	Journal of Medical Investigation and Practice	NGA	156
226	Journal of Medical Laboratory Science	NGA	6
49	Journal of Medicine and Biomedical Research	NGA	258
42	Journal of Medicine and Medical Sciences (Nigeria)	NGA	269
208	Journal of Medicine in the Tropics	NGA	30
158	Journal of Mining and Geology	NGA	95
144	Journal of Modelling, Design & Management of Engineering Systems	NGA	119
203	Journal of Pharmaceutical and Allied Sciences	NGA	35
153	Journal of Pharmacy and Bioresources	NGA	103
92	Journal of Psychology in Africa	ZAF	174
34	Journal of Science and Technology	ZMB	284
157	Journal of Science and Technology (Ghana)	GHA	96
27	Journal of Social Development in Africa	ZWE	294
224	Journal of Technology and Education in Africa	NGA	8
67	Journal of the Cameroon Academy of Sciences	CMR	213
113	Journal of the Ghana Science Association	GHA	153
125	Journal of the Nigerian Infection Control Association	NGA	142
155	Journal of Tropical Microbiology	KEN	99
223	Journal of Tropical Microbiology and Biotechnology	NGA	10
201	Lagos Historical Review	NGA	41
228	Lagos Journal of Library and Information Science	NGA	5
119	LBS Management Review	NGA	146
35	Malawi Journal of Science and Technology	MWI	279
98	Malawi Medical Journal	MWI	168
139	Mary Slessor Journal of Medicine	NGA	122
188	Mathematics Connection	GHA	67
146	Moor Journal of Agricultural Research	NGA	117
185	Nigeria Journal of Pure and Applied Physics	NGA	70
50	Nigerian Agricultural Journal	NGA	257
186	Nigerian Food Journal	NGA	70
102	Nigerian Journal of Animal Production	NGA	162
227	Nigerian Journal of Chemical Research	NGA	6
152	Nigerian Journal of Clinical and Counselling Psychology.	NGA	105
74	Nigerian Journal of Clinical Practice	NGA	201
79	Nigerian Journal of Health and Biomedical Sciences	NGA	188
120	Nigerian Journal of Horticultural Science	NGA	146
96	Nigerian Journal of Natural Products and Medicine	NGA	170
167	Nigerian Journal of Ophthalmology	NGA	85
166	Nigerian Journal of Orthopaedics and Trauma	NGA	87
207	Nigerian Journal of Otorhinolaryngology	NGA	31
106	Nigerian Journal of Paediatrics	NGA	157
222	Nigerian Journal of Pharmaceutical Research	NGA	11
204	Nigerian Journal of Physiological Sciences	NGA	35
131	Nigerian Journal of Soil Research	NGA	135
132	Nigerian Journal of Surgical Research.	NGA	135
110	Nigerian Libraries	NGA	155
80	Nigerian Medical Practitioner	NGA	187

Rank	Journal	Country	Email alerts
229	Nigerian Music Review	NGA	5
93	Nigerian Quarterly Journal of Hospital Medicine	NGA	173
140	Nigerian Veterinary Journal	NGA	121
141	Obstetrics and Gynaecology Forum	ZAF	121
149	Orient Journal of Medicine	NGA	110
215	OriOn: The Journal of ORSSA	ZAF	21
181	Ostrich: Journal of African Ornithology	ZAF	75
71	Philosophical Papers	ZAF	203
230	Plant Products Research Journal	NGA	3
199	Quaestiones Mathematicae	ZAF	43
58	Review of Southern African Studies	LSO	235
200	Revue Burkinabè de droit	BFA	42
173	Revue d'Information Scientifique et Technique	DZA	81
133	SAFERE: Southern African Feminist Review	ZWE	135
33	SAHARA J	ZAF	285
104	Sahel Medical Journal	NGA	159
81	Scientific Medical Journal	EGY	187
130	SINET: Ethiopian Journal of Science	ETH	139
161	South African Actuarial Journal	ZAF	93
114	South African Family Practice	ZAF	153
182	South African Gastroenterology Review	ZAF	75
165	South African Journal for Research in Sport, Physical Education and Recreation	ZAF	88
75	South African Journal of Agricultural Extension	ZAF	201
127	South African Journal of Botany	ZAF	141
209	South African Journal of Clinical Nutrition	ZAF	28
90	South African Journal of Education	ZAF	175
45	South African Journal of Higher Education	ZAF	264
163	South African Journal of Musicology	ZAF	90
214	South African Journal of Obstetrics and Gynaecology	ZAF	24
112	South African Journal of Philosophy	ZAF	154
216	South African Journal of Psychiatry	ZAF	20
221	South African Journal of Radiology	ZAF	13
183	South African Journal of Sports Medicine	ZAF	75
220	South African Journal of Surgery	ZAF	14
8	South African Medical Journal	ZAF	416
164	South African Psychiatry Review	ZAF	89
138	Southern African Forestry Journal	ZAF	124
179	Southern African Journal of Anaesthesia and Analgesia	ZAF	76
190	Southern African Journal of HIV Medicine	ZAF	59
148	Southern African Linguistics and Applied Language Studies	ZAF	112
180	Sud Sciences et Technologies	BFA	76
211	Sudanese Journal of Dermatology	SDN	27
111	Tanzania Health Research Bulletin	TZA	155
88	Tanzania Journal of Science	TZA	177
177	Technologies Avancées	DZA	78
68	The African Anthropologist	CMR	211
154	The Information Technologist	NGA	100
69	The Uganda Journal	UGA	208
160	Transactions of the Zimbabwe Scientific Association	ZWE	94
151	Tropical Freshwater Biology	NGA	109
128	Tropical Journal of Animal Science	NGA	141
66	Tropical Journal of Medical Research	NGA	214
121	Tropical Journal of Obstetrics and Gynaecology	NGA	145
116	Tropical Journal of Pharmaceutical Research	NGA	149
142	Tropical Veterinarian	NGA	121
196	Tydskrif vir letterkunde	ZAF	45

Rank	Journal	Country	Email alerts
99	UNISWA Journal of Agriculture	SWZ	167
36	UNISWA Research Journal of Agriculture, Science and Technology	SWZ	276
109	University of Dar es Salaam Library Journal	TZA	156
103	Water SA	ZAF	160
15	West African Journal of Medicine	NGA	354
83	West African Journal of Pharmacology and Drug Research	NGA	185
217	West African Journal of Radiology	NGA	16
184	Western Indian Ocean Journal of Marine Sciences	TZA	72
122	Zambezia: The Journal of Humanities of the University of Zimbabwe.	ZWE	145
84	Zimbabwe Journal of Educational Research	ZWE	185
94	Zimbabwe Science News	ZWE	173
137	Zimbabwe Veterinary Journal	ZWE	126

Appendix 4

Questionnaire to registered users of AJOL

Dear AJOL user

Our records show that you have registered on the African Journals Online (AJOL) website www.ajol.info. In order to help us improve the service, we would be very grateful if you could spare the time to answer this short questionnaire. You can either answer this email, or you can record your answers on:

SurveyMonkey <http://www.surveymonkey.com/s.asp?u=720511630345>. No personal information will be recorded.

1. Which of the following describes your status?
Student
Researcher
Librarian
Other (please specify)
2. What is your country?
3. How did you first find the AJOL website?
Google search
Other search engine
From the INASP website
From a colleague
Publicity material
Other (please specify)
4. Why did you visit AJOL?
Looking for African research
Looking for research from my own country
Looking for research on a specific topic
Other (please specify)
5. How often do you visit the website?
Daily
Weekly
Monthly
Irregularly
Other (please specify)
6. Which subject areas interest you?
Agricultural Sciences and Resource Management
Arts, Culture, Language and Literature
Health
Science & Technology
Social Sciences
Multidisciplinary
7. Did you use the search facility on AJOL?
Yes
No
8. Did the search produce useful results?
Yes
No
Other (please specify)
9. Have you signed up for an email alert when a new issue of a journal is published?
Yes
No

10. Have you ordered an article from the document delivery service of AJOL?
Yes, once
Yes, several times
No (go to question 16)
11. Why did you order articles from AJOL?
Background reading
Own research
Teaching
Other (please specify)
12. From which subject area did you order articles?
Agricultural Sciences and Resource Management
Arts, Culture, Language and Literature
Health
Science & Technology
Social Sciences
Multidisciplinary
13. Were the articles useful?
Yes
Partly
No
Other (please specify)
14. Will you cite the articles in your work?
In the next 6-12 months
In the future
No
Other (please specify)
15. Did you circulate the articles among your colleagues?
Yes
No
Other (please specify)
16. Did you find AJOL easy to use?
Yes
No
Other (please specify)
17. Have you recommended the AJOL website to colleagues?
Yes
No
18. Do you have any comments about the service?
19. Do you have any suggestions for improvements to the service?

Please send the completed questionnaire to scumming@inasp.info

Thank you very much for your assistance and if you have any further queries, please do not hesitate to contact me.

Appendix 5

Questionnaire to users of the document delivery service

Dear AJOL user

Our records show that you have ordered one or more articles from the African Journals Online (AJOL) website www.ajol.info. In order to help us improve the service, we would be very grateful if you could spare the time to answer this short questionnaire. You can either answer this email, or you can record your answers on: SurveyMonkey <http://www.surveymonkey.com/s.asp?u=194591630258>. No personal information will be recorded.

1. Which of the following describes your status?
Student
Researcher
Librarian
Other (please specify)
2. What is your country
3. How did you first find the AJOL website?
Google search
Other search engine
From a colleague
Publicity material
Other (please specify)
4. Did you find AJOL easy to use?
Yes
No
Other (please specify)
5. How often do you visit the website?
Daily
Weekly
Monthly
Irregularly
Other (please specify)
6. Why did you order articles from AJOL?
Background reading
Own research
Teaching
Other (please specify)
7. From which subject area did you order articles?
Agricultural Sciences and Resource Management
Arts, Culture, Language and Literature
Health
Science & Technology
Social Sciences
Multidisciplinary
8. Were the articles useful?
Yes
No
Partly
Other (please specify)

9. Will you cite the articles in your work?
In the next 6-12 months
In the future
No
Other (please specify)
10. Did you circulate the articles among your colleagues?
Yes
No
Other (please specify)
11. Do you have any comments about the service?
12. Do you have any suggestions for improvements to the service?

Please sent the completed questionnaire to scumming@inasp.info

Thank you very much for your assistance and if you have any further queries, please do not hesitate to contact me