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...in Action

A user-centred approach to low bandwidth

The Association of Commonwealth Universities takes on the Bandwidth Challenge focusing on ease of navigation as well as page size

David Osei , 2013

Established 100 years ago in 1913, the Association of Commonwealth Universities (the ACU) is the world's first and oldest international university network. We draw on the collective experience and expertise of our membership to address issues in international higher education through a range of projects, networks, and events. We have members from almost 40 different countries spanning all corners of the Commonwealth, with around two thirds in developing countries.

As a globally-oriented organisation, it is imperative that we put our international audiences at the heart of the services that we provide. Due to the geographic spread of our member institutions, much of the information and resources available to our members can only be accessed online. This presents us with the challenge of making our website functional for our entire global user base — especially those who access the internet through low-bandwidth connections.

Making navigation easier

With this consideration in mind, in early 2012 we drew up plans for a new website and met with our web designers to discuss how we could produce a new site that could better serve all our users. In deciding how we wanted our new website to look and feel, we performed a thorough analysis of our old website and came up with eight priority improvements. Many of these were not directly related to low-bandwidth users, however, our top priority – improving the menu structure and layout for more intuitive and efficient navigation – indirectly was.

We concluded that our navigation system, especially the top-level main menu, was in need of an overhaul to make it simpler and more logical to navigate. The end result would be that the user would have to browse through fewer pages in order to get to the content they sought.

On our previous website we had ten top-level menu options. On our new website the ten have been reduced to six, with second-level menu options visible via a drop down menu. This now means that, through a single menu, a user can navigate to 27 of the most commonly accessed pages in just one click.

Who are we? Looking from the outside in

To get to this stage, a lot of thought and planning went into re-grouping and re-categorising the numerous pages that had amassed over the years. This also forced us to define who we were as an organisation. Choosing five or six main menu options required us to look at ourselves from the outside-in: what did we feel was important that our visitors saw when they arrived at our website?

As web administrators, because we know our websites inside out, we sometimes take for granted that end users – many of whom may have never visited our website before – will know where to go to find certain content. Our job is to make their navigation choices easier.

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On our previous website, we had a menu option titled 'About us', another called 'Member services', one pointed to the 'Who we are' page, and yet another menu option was labelled 'Key strengths'. It's not hard to see how a member could be confused as to which link would best answer their question — it could have taken me up to four page loads to eventually arrive at the right content, and for many members all of this would take place on a slow connection.

Keeping things light

Reducing the number of pages users had to navigate was important to us, as speed is important to users — speed, not just in terms of how fast the webpages load, but also in terms of how quickly they can find what they need. The speed at which webpages loaded nevertheless played a part in this redevelopment project.

There were some modules and add-ons that we considered installing but, after assessing the value of the added functionality gained versus the potential to slow down the website, we decided against them. Whilst some modules may make already simple processes even simpler for some

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users (like buttons for sharing links to other social networks), if it is to the detriment of many other users then their overall utility is reduced.

Style versus speed

Text-heavy sites tend to be unattractive to the eye, and a plain text page also loads a lot quicker than one infused with other graphics and audiovisual elements. Conversely, for many organisations, the website is their primary marketing tool and having something that looks good is of great importance. The tensions between style and speed are obvious but it is entirely possible to create a web product that embodies your brand yet isn't bloated by visual extras. The home page of one of the world's most recognisable brands is a white page with a single word: 'Google'.

In our case, we used our core brand colours (navy blue and white) and added a few bolder colours to our palette (lime green, amber, sky blue and maroon) to create a visually appealing home page without the need to saddle it with images.

From personal experience of working in Ghana, I am all too aware of the struggles the average user has to go through in order to consume content. It costs both in terms of time and money. It is important to remember that, whereas we in the global North may be used to consuming online content under unlimited broadband or data tariffs, many users in developing counties pay per megabyte. Uploading an uncompressed PDF in the North that's twice as large as it needs be is ultimately twice as expensive as it needs be to the end user in the South.

Although our focus is particularly tilted to the global South, it is not only Southern users who desire a faster, smoother internet experience. Ten years ago in the UK we used to be happy to sit and wait for 10 seconds for a webpage to load. Nowadays, few of us have that same level of patience.

In the UK, the average broadband connection in November 2008 was 3.6Mbit/s. Just this week it was announced that the average speed is now 12.0Mbit/s. The faster we get, the faster we want. As web developers and administrators, whether our users are based in the global North or South we should be wary of making users wait a moment longer than necessary to do what they've come to our website to do.

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Moving into mobile

We will soon be unveiling our mobile site, which will be available across all mobile platforms.

The user won't need to think about whether the website is optimised for their device; the website will automatically choose the appropriate display for the device it's being accessed from. And just as our websites are being built to be responsive, so our Communications Department must be too in order to keep abreast with the latest changes in hardware, the growth of broadband and the browsing habits of our diverse user base.

Building a website that is fit for purpose has become the modern day equivalent of painting the Forth Bridge – a task that's never complete. But in order to ensure that globally-oriented websites serve their worldwide audiences, ensuring a website is equally accessible globally shouldn't be a bridge too far.
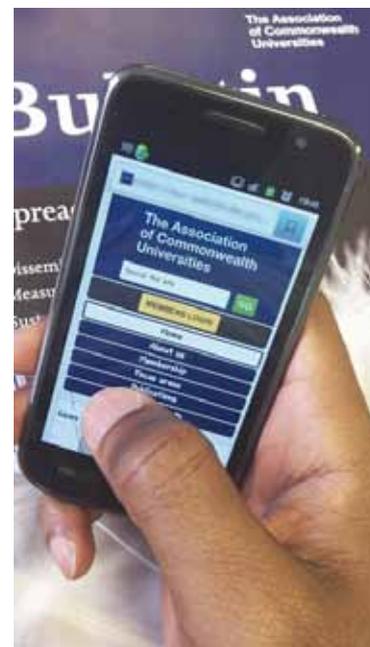
Take the Bandwidth Challenge!

Slow loading times are a major reason why web traffic is cut short. Some pages take so long that users lose patience, lack the time or are unable to access the page at all. Web pages are often larger than they need to be and on low bandwidth connections – common in developing countries – pages can take over a minute to load or simply time out!

Publishers for Development and Aptivate invite you to take our Bandwidth Challenge. We want you to review your website and see how you can adapt and optimise it for low bandwidth environments.

http://www.pubs-for-dev.info/bandwidth-challenge/

David Osei is the ACU's Digital Communications Officer.