Web publishing of statistics: Statistics South Africa website

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INTRODUCTION

In our quest to expand our statistical target audience from core statistics consumers to ordinary citizens and to also make it easier for the public to access our information, it became paramount to revamp our dissemination channels – including our website – from being a static publishing tool to a more dynamic dissemination channel. This paper will share the journey that Stats SA undertook to arrive at the current website and also highlight some of the items on our Roadmap.

Traditionally our focus was to make statistics accessible to core statistics users and consumers. With our new website, we have managed to demystify the technical jargon associated with statistics, thus welcoming a new audience to our environment. This is supported by the growth of the number of users accessing our website and its content. Through our new website, we have moved from disseminating static statistical publications and content to dynamic, user-friendly content by making use of data stories, theme-based product packaging, making use of infographics and other visuals to assist users when accessing the Stats SA website.

Traditional websites

Web and software technologies are disruptive across many industries, including the Statistical field. Most National Statistics Offices (NSOs), however, are not keeping up with technology and embracing the many possibilities that the technologies bring. If one does a quick survey of NSOs websites, many of them are still using aging technology.

At Stats SA, we went through a period of introspection about how we offer products to our end users, and we came to the conclusion that there are better ways to present the statistics that we produce. In 2013 we started working on a new website that would be more responsive to our stakeholders’ needs and would also adopt a range of technologies that make life easier for our end users and our internal production processes.
Our journey to building our new website

Building a new website isn’t only about getting clever programmers in one room and telling them to program. To create a product that would resonate with our end users, we decided to include them in the design process to help guide some of our thinking.

As part of the website project, user consultation was done with internal and external users of Stats SA’s website. One-on-one interviews, presentations, meetings and focus groups were conducted with users to determine what they require most from Stats SA’s website, so as to ensure that the new design catered for their needs.

The website consultative project consisted of two phases. First, a pre-launch user research phase was conducted before any work began on the new website. In the second phase, post-launch research was conducted after the new website was launched.

The bulk of user interaction was conducted during this phase, with 129 participants taking part in focus groups, meetings and interviews. Feedback received from these participants during this phase covered five overarching themes, which are touched on throughout this document. To summarise, the five overarching themes of discussion were:

- **The old website:** Problems or issues that users experienced with the old website.

- **The new landing page:** Users were shown a proposed mock-up of the new homepage, and they were then asked to share their thoughts on the user-friendliness and look and feel of the page.

- **The proposed theme structure and navigation:** Not only were users asked to share their thoughts on the new website’s look and feel, but they were also asked to provide feedback on a proposed navigational structure for the new website. In order to determine the new navigational structure of the website, users – during the discussion sessions – were given decks of printed cards, each card representing a specific statistical theme (e.g. crime, unemployment, etc.). They were then asked to sort these cards into four broad categories. The results of the card sorting exercises provided insight into the mental models of users, in terms of where they would expect

> “If our products are not innovative and by extension, are not keeping up with the trends, there is a good chance that someone else will move into our territory and steal our lunch…”

Pali Lehohla

(Statistician-General: South Africa)
to find specific data on Stats SA’s website.

- **The use of data stories:** Another initiative of the new website would be to communicate statistics through the use of easy-to-read *Data Stories*. Data Stories are “newspaper”-like write ups that give users background information and context to the statistics/indicators that we release. Users were asked to read through and provide feedback on a few written data stories.

- **Internal staff perceptions of external users:** Stats SA staff from various divisions were asked about those external users whom they service, and if they knew of any frustrations that users experienced with Stats SA’s old website.

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**Figure 2: Feedback received during pre-launch consultative process**

Figure 2 above shows how the comments that were received during the consultation process were classified. The comments from the classifications were then further analysed and used as input into the design process for the new website.
**Context-driven dissemination**

One of the discoveries that we made during the user consultation process was how our stakeholders did not like information that did not have any context. For our users, it’s not just a single number but rather how that number fits into a broader narrative around that number or set of numbers.

Announcing that the Gross Domestic Product (GDP) is 3.7% might sound impressive but when you also know that the unemployment rate is 17% and the inflation rate is 5.8%, then that GDP number might not seem that impressive. We realised that for a majority of our users, they needed the complete narrative in order for them to make sense of all the indicators that we are producing.

> “The beginning of a wise decision is knowing the facts.”
>  
> Juho Kusti Paasikivi  
> (Former President of Finland)

![Figure 3: An example of a theme page – theme pages set the context for users to understand the various publications.](image-url)
Figure 3 shows the layout of a typical theme page. Theme pages are made up of the following elements:

- **Introductory narrative**: The narrative is used to set the context for users. This might include some historical information that would give the users insight into the evolution of the indicators or publications that they are interested in.
- **Quick fact or infographic**: The quick fact or infographic is part of the introductory narrative that assists in setting the context.
- **Graphics panel**: The centre panel is reserved for graphics. Stakeholders can use these to get an overview of how the related indicators are performing relative to other indicators within the same theme.
- **Key Stats**: This panel allows users to get a glimpse of the key indicators within the theme.
- **Statistical Publications**: This panel has all the statistical publications that fall into that theme.
- **Related documents**: The related documents panel contains supplementary content such as metadata documents or technical documents.
- **Links**: The links panel has links to our data portal or links to other (external) websites.
- **Data story**: The bottom panel is reserved for data stories that are related to the theme.

Another important discovery from the user consultation sessions and through analysing the trends from our social media platforms (Twitter and Facebook), we realised how popular visual communication was for our stakeholders. Most of the user activity was where we included infographics as part of the messaging.

In hindsight this makes sense as more and more people are consuming bite-size content through social media platforms. Below is an example of an infographic for *Causes of Death.*
Infographics are not exclusively for our social media platforms but they are also included as part of Data Stories and the Theme pages.

Feedback/Response
The new website has been operational for 19 months and we continue to see steady growth in both the number of users and the number of sessions per month, as shown in the graph below.

One of the objectives that we set out to achieve was to reduce the number of clicks (which translates into time) it takes for our users to reach the content they are looking for. On the old site, users complained that it was cluttered and they couldn’t find what they were looking for. They were spending most of the time looking for content instead of consuming it. This was evident when we inspected the number of pages per session and the average session duration—the number of pages was high but the duration was low and the total number of downloads was also low. After the redesign, the pages per session (which we used as a proxy for number of clicks) dropped while the number of downloads and average session duration increased.
We understood this to mean that users could find the content they were looking for and spending more time on relevant pages.

<table>
<thead>
<tr>
<th>Country</th>
<th>Sessions</th>
<th>% Sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>1,260,383</td>
<td>74.31%</td>
</tr>
<tr>
<td>India</td>
<td>111,200</td>
<td>6.56%</td>
</tr>
<tr>
<td>United States</td>
<td>60,655</td>
<td>3.58%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>37,210</td>
<td>2.19%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>33,083</td>
<td>1.95%</td>
</tr>
<tr>
<td>(not set)</td>
<td>24,389</td>
<td>1.44%</td>
</tr>
<tr>
<td>Kenya</td>
<td>23,682</td>
<td>1.40%</td>
</tr>
<tr>
<td>Germany</td>
<td>19,008</td>
<td>1.12%</td>
</tr>
<tr>
<td>France</td>
<td>8,036</td>
<td>0.47%</td>
</tr>
<tr>
<td>Australia</td>
<td>6,711</td>
<td>0.40%</td>
</tr>
</tbody>
</table>

Figure 7: Distribution of visitors by country (August 2013 to February 2015).

Roadmap – What’s next?

While we are very pleased with the growth in user numbers, number of statistical publication downloads and number of sessions per month, there is still a lot of room for improvements and growth.

The following are a few deliverables on our roadmap for the next 12 months:

- Improve the maps functions for navigation
- Improve the graphics engine
- Add a Data API
- An automated and metadata driven publication system
- News-Wire service (exclusively for journalists)
- Blog functionality
- Performance enhancement
- Discussion forum
“If we want South Africans to use statistics as one of their democratic tools, we have to make the statistics accessible and understandable.”

Trevor Manuel

(Former Planning Minister of South Africa)

Conclusion

While innovation is not a precursor for success, it remains an important component in retaining your client base and more importantly, increasing it. This is evident in the feedback that we receive from our clients and the growth in the user base.

The innovation in this case wasn’t only the technology that was used, but a combination of how People (in different fields – IT specialists, Marketing and Communication specialists and our various Stakeholders), Processes, and Products (technology) were unified behind a single goal within an ecosystem that promotes and supports innovation.