Introduction

1. The journey from print to web publishing for the Office for National Statistics (ONS) culminated in the latest incarnation of the ONS website\(^1\) that launched in August 2011.

2. ONS’ journey from print to web publishing transitioned through commercial flagship printed volumes to print on demand services, to its maiden website\(^2\) which predominantly hosted PDF content, to its current website.

3. This paper explores key aspects of ONS’ journey from print to web publishing and outlines the:
   - drivers for digital transformation
   - dissemination opportunities offered by web publishing
   - challenges faces by ONS
   - outcomes and lessons learnt

4. This paper concludes that, arguably, the greatest challenge facing those transitioning from print to web publishing is the need to develop a digital mindset within the organisation.

Drivers for digital transformation

5. ONS has long been committed to increasing public accessibility to its outputs, in terms of clarity, usability and the channels of dissemination through which it communicates.

6. The ONS mission statement, ‘Trusted statistics – understanding the UK’, places at its heart the aim to expand the reach of its statistics and to engage its customers - citizen and expert users alike.

7. After consultation with users of ONS printed statistics it became apparent that producing data and tables in print was no longer appropriate or useful. Users stated that they would prefer data and analysis to be presented online in a more interactive and relevant way.
8. In addition, ONS recognised the potential to achieve a broader audience, in contrast to the falling usage levels and demand for its printed publications.

New dissemination opportunities

9. With over 40 million web users in the UK alone, web publishing provides ONS with the opportunity to reach a much larger and broader audience and provides users with 24/7 access to its outputs.

10. Once a read-only experience, web publishing now offers the chance to explore the publication of much richer content, for example, infographics, interactive content, videos, audio commentary, etc.

11. Richer, more engaging, web content can lead to greater exposure and greater reuse, particularly through media outlets.

12. The shorter production times of web publishing facilitate a more flexible publishing schedule with greater potential for the publishing of ad-hoc outputs and short stories to compliment established regular outputs.

13. Web dissemination provides the ability to react quickly to trends and environmental/societal issues and add relevant expert insight, helping to clarify important issues and inform debate.

Challenges and outcomes

14. As with any large-scale transitional project, there were many challenges, for example, content migration, site architecture, development and delivery of training and establishing support services for users of the publishing system.

15. One of the largest challenges for ONS was the migration of over 60,000 content items from the original website to the new one. This process involved extracting copies of content from the existing website and loading them into the new website with appropriate metadata to ensure that the content appeared in the right place on the new website and that it could be searched. However, the process took 15 months and some automated parts of the migration process caused errors with the titles of content that adversely affected the search functionality of the new website.

16. For the purposes of managing the new website ONS adopted a devolved publishing model whereby those staff that produce the statistical outputs are responsible for publishing them directly to the website. As a result, the biggest challenge for ONS has been developing and embedding a digital mindset amongst the hundreds of staff involved in this new model.

17. Developing and embedding a digital mindset requires an extremely proactive approach. Not only must new ideas be imparted but previous thinking must be challenged. For example, whilst the print publishing model was an extremely successful one it was not transferable to web publishing. Other misconceptions were actively challenged, such as:
   - use of plain English/clear language rather than technical terms devalues data and turns-off specialist users
   - web content does not have the same value as print as it is generally free
   - the audience for the web and their requirements are the same as for print customers
   - web publishing requires less lead-time than print to produce a quality product
   - digital publishing is an easy skill to learn
18. The devolved publishing model introduced the need for extensive staff training. This training was both technical (for the content management system) and non-technical (the skills required to write for a web audience).

19. In the three months prior to the launch of the new website 330 staff were identified as requiring technical and non-technical training. The technical training for the content management system was very complex but only one day was allotted for the course. As a result staff acquired only a basic understanding of the system and subsequently struggled to use the system and/or underwent retraining. Additionally, business pressure meant that the training was not initially made mandatory.

20. Staff moves, absences and attrition have also meant that a subsequent 200 people have required training in the 18 months following the launch of the website.

21. The non-technical training took the form of a ‘Writing for the Web’ course. This course sets out the fundamental differences between print and web publishing structures, the behaviours of web users and the standards that need to be applied to web content.

22. Successful delivery of the Writing for the Web course involved breaking through decades of expertise, experience and good habits for print publishing to make content suitable for web. For example, the need to break content into easily navigable chunks, the use of visuals and bullet points, story telling rather than reporting, the application of metadata, the need for accessibility, etc. much of which has been successfully adopted (see Figure 1):

![Figure 1: ONS website output](image-url)
23. However, there has been some reluctance to take on board other aspects of web publishing such as reading ages. The subject matter of many statistical outputs has historically lent itself to a more academic audience and the concept of lowering its reading age (with simpler sentence structure, use of less technical terms, etc) is frequently misinterpreted as dumbing-down. The reality is that web publishing represents a move from simply presenting data tables to providing more commentary and recognising that the wider audience opportunities of a website bring with it the requirement to help users with interpretation of outputs. This, in turn, requires a reduced reliance on technical terms and complex charts and the acceptance that not all users are statistically literate. There is a requirement to ‘paint a picture’ for the user.

24. Clear and effective visualisation of data can also present challenges. One area of emerging success for ONS is the use of infographics. Infographics, when expertly designed, can add value for customers, not just in terms of telling the story behind a particular set of data, but also as a means of conveying concepts (see Figure 2):

![Figure 2: ONS infographic depicting 'How ONS statistics explain the UK economy'](image)

25. However, despite the opportunities offered by web publishing, some output owners have resisted the move away from PDF publishing. The reasons for this are:
- the technical nature of the publishing system and the perceived complexity of reformatting content
- the perception that users prefer PDF as a format (although in reality this usually represents a very small number of specific users)
26. Many of the transitional challenges have led to quality and accessibility issues which have resulted in the subsequent implementation of:
   - content ‘health checks’ to assess the web suitability and accessibility of outputs
   - ‘hot desk’ facilities where output owners can work alongside the an expert digital publishing support team to increase their skills whilst producing their outputs

**Lessons learnt**

27. For many the biggest challenge in transitioning from print to web publication is perceived to be a technical one. However, ONS’ experience evidences that the cultural change is, arguably, a greater challenge.

28. For those embarking upon a similar transition the importance of placing equal, if not greater, focus on business change as well as technical implementation cannot be emphasised enough.

29. The expectation may be that a move from print to digital inherently improves accessibility. However, if the goal is to deliver truly accessible content and to reach a wider audience then print content must be revised and developed specifically for the medium of the web.

30. Writing for the web and developing rich web content is an expert skill that is not easily or quickly imparted to others. Moreover, those who produce outputs are primarily focussed on the quality of the statistics rather than creating an engaging website end product. The ‘publishing’ aspect of their role accounts for a small part of what they do limiting the scope for developing expertise.

31. For others the focus is on navigating the complexities of the content management system rather than adding value to web content. It could be argued that this, coupled with a decentralised publishing model, has resulted in publishing activity within ONS has becoming de-professionalised and deskilled.

32. In order to fully embrace the digital age professional dissemination must be at the heart of corporate strategy and be given equal billing with statistical quality. Statistical quality cannot become the end point of the production process if statistics are to engage users who are not statistically literate.

33. ONS has responded to these issues by putting in place a programme of improvements that brings together graphic designers, accessibility experts, editors and developers to create new and engaging content. An example of this is the redeveloped theme pages (see Figure 3):

**Figure 3: A theme page before development and after development**
Conclusion

34. Investment in the physical transition from print to web publishing can only be realised with adequate investment in business change and specialist skills, bolstered by a commitment to invest in continuous improvement. The transition from print to web publishing is not simply a process change; it is a cultural shift that requires those involved to develop a digital mindset. The realisation of this critical aspect is echoed by the UK’s Government Digital Service ‘Digital by Default’ strategy\(^3\) which sets out that the government itself needs to become digital in thinking in order to deliver services which are suitable for users.

Notes

1. www.ons.gov.uk
2. Launched in 2000
3. digital.cabinetoffice.gov.uk/category/digital-strategy/