

Office for National Statistics and Methods:

Open platform website development

Background

The Office for National Statistics is the UK's largest independent producer of official statistics and the recognised national institute of the UK. It is responsible for producing economic, social and census statistics. The published outputs of the organisation are used by government, media, civil society and citizens.

According to Wikipedia, in December 2012, the organisation's then new website was described as "a disaster" by Members of Parliament on the Public Administration Committee. The chair of the UK Statistics Authority said that significant improvements were being made but admitted that its state at the time made it "difficult to use, difficult to navigate and difficult to search".

The Challenge

ONS has a key responsibility to make information available publicly within one minute of 9:30am on the day of publication. This ensures that information is available equally to all users and that no consumer of statistical products is disadvantaged.

Breaching this timeline results in the ONS being required to provide a report to parliament on why a publication failed to be delivered on time. The existing back-end systems were not able to reliably publish on time, leading to regular breach reports and a need to ensure publication-time commitments could be met.



Within one minute

The Solution

In 2014, a small team within ONS began a discovery process, consisting of user research, wireframing and visual design activities to build a business case for the complete rebuild of the public website using Government Digital Service principles and to meet the Digital by Default service standard.

Based on the work done in the discovery phase, the organisation agreed to proceed to an alpha stage. Methods' software development team was engaged to put the discovery work into practice by building a public prototype to demonstrate to the organisation, users of the current website and influential critics what could be achieved.

The project was probably the most significant public alpha since the original Gov.uk alphagov project, with all code being developed in public on Github using efficient, up-to-date approaches to architecture, deployment and hosting such as API-first design, Platform-as-a-Service, and continuous deployment.

Development work was based on feedback, user research, and clean, modern user-centred and technical design, enabling the outputs of discovery, including information architecture, wireframes and pattern library to be rendered as a working prototype that could be demonstrated to stakeholders within the first few weeks.

The combined ONS and Methods team were able to establish a revolutionary level of pace and engagement for the organisation and delivered an outcome that included the presentation of 35,000 statistical time-series within a rich prototype, in just a few months. Methods supported ONS by presenting the technical approach and designs at the alpha GDS service assessment and the project was approved to proceed to a beta phase.

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The Result

Thanks to pragmatic, lightweight use of agile principles, a DevOps ethos, and the willingness of Methods' staff to integrate with ONS's team to form 'one team', the public alpha was delivered in 3 months by a combined total of less than a dozen people. The prototype achieved 95% positive feedback from users.

The live service was released in February 2016, receiving significant praise from the statistical community, including the following tweet:

The beta ONS site is already better than all the Gov.UK sites now. A whole new world.

Chris Cook, Policy Editor, BBC

The success of the website delivery has created appetite and momentum for organisation-wide digital transformation and the agile approach, technology patterns, pace and quality of delivery and team culture are now being used as a model for projects across the organisation, including preparations for the 2021 UK Census.



3 months
to deliver public alpha



12 people
ONS/Methods, working as "one team"



60 seconds
to transfer large volumes of data to public website



ONS
meet their publication commitment

After successfully passing the alpha GDS service assessments, the project proceeded to a beta phase and the public website was fully redeveloped. Building on the same modern technology and user-centred design used in the alpha phase, the combined ONS/Methods team delivered the live service – which included both the public-facing website and the internal-facing content creation and preview applications.

This new, modern system included encryption and publication components to protect pre-release content and ensure that, on publication, substantial volumes of data could be transferred to the public website within 60 seconds, allowing ONS to meet their publication commitments.

"Take the Office for National Statistics' (ONS) website, once described in the FT as a 'national embarrassment'. A small, highly skilled team built a new alpha version in 3 months and it went live just before Christmas. The feedback has been fantastic, and the ONS team are about to finish their beta version, catering to the needs of everyone from A-level students to academic economists, at a fraction of the cost of the original"

Rt Hon Matthew Hancock MP, Cabinet Office and Government Digital Service

From the keynote speech delivered to the National Digital Conference 2015



"The beta ONS site is already better than all the Gov.UK sites now. A whole new world."

Tweet from Chris Cook, Policy Editor, BBC

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