

Making statistics findable and understandable in the age of information overflow

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Abstract

As the demand for accessible and trustworthy statistics grows, national statistical offices face a central challenge: how to present complex data in a way that is meaningful to users with widely different levels of statistical knowledge. This paper introduces a communication project from Statistics Denmark focused on developing new subject pages for dst.dk that make official statistics easier to navigate, understand, and use.

The project was grounded in a strong user-centred approach. Through user insights and iterative testing, we identified a clear need for quick access to key figures, concise explanatory texts, transparent source documentation, and a visual structure that supports rapid orientation. The new subject pages therefore feature content organised by user tasks, simplified language, and explanations that help non-experts decode statistical, subject-specific concepts that otherwise feel inaccessible.

A key component of the project was strengthening the editorial role within the organisation. We worked closely with statisticians to support them in communicating their own statistics to a broad audience—ranging from upper-secondary students to journalists seeking quick, reliable answers. This involved guidance on language, usability, and new graphic visualisations that make complex material more approachable.

The project had a strong focus on search engine optimization (SEO), which has proved useful at a time when AI increasingly mediates how users discover information. While this has strengthened the visibility of our subject pages, it has also highlighted the ongoing challenges of ensuring that AI-supported search engines and assistants can fully find our data and content.

The paper will share insights to both the challenges and wins of the project, but mainly show how usability principles, editorial structure, and cross-disciplinary teamwork can transform “dusty” statistical data into accessible and engaging content.

Keywords: Information overload, language, editorial work, usability, SEO.

1. Introduction

As the demand for accessible and trustworthy statistics grows, national statistical offices face a central challenge: how to present complex data in a way that is meaningful to users with widely different levels of statistical knowledge. This paper introduces a communication project from Statistics Denmark (SD) focused on developing new subject pages for dst.dk that make official statistics easier to navigate, understand, and use.

2. Subject pages in need of a make-over

In 2021 we – in the communication department at SD – took a hard look at our subject pages on dst.dk, and knew things had to change. The content was cluttered, text- and table-heavy, without any prioritization, and with very little user help. The pages had "sanded over", probably due to limited communication resources, and the fact that the statisticians themselves were responsible for maintaining and updating the pages. Years had gone by with adding content and little editorial guidance.

The pages were often dominated by distinctly academic language and long, complex sentence structures. It was clear that a new page design and language guide were needed, and that a more automatic update of content would be preferable, making the pages low-maintenance for statisticians.

3. A fast-moving and diverse user group

As a statistical office, we have the responsibility to ensure that our data is available to all users, but how to go about it, when the users are so varied both in terms of statistical and subject-specific knowledge?

Key to optimising our subject pages were the users themselves. What information were they looking for, and how did they want the information served? Only when gaining these insights, could we optimize the usability of the pages.

From tracking our website traffic, we knew that 74% of subject page visits come directly from a search engine, typically Google (ref. 1). The users have typed in a question or keywords in the search field, been given a list of search results and

directed to a subject page. This means that users rely heavily on the AI-driven search to guide them to trustworthy information.

Once on the subject page, they stay shortly - on average 106 seconds per subject page (ref. 2). They are looking for something very specific and leave after finding (or not finding) it. It's grab-and-go statistics.

Special interest users

On a strategical level, we have identified the target group for the subject pages as *the special interest users*. The group consists of users with a certain interest in statistics – either out of curiosity or because they occasionally need it in their profession or study. They are not expert or daily users of statistics, and many of them have limited statistical and subject-matter knowledge.

When these users cannot find the statistics they are looking for, they write to Information Service at SD (previously a callcenter), and all of these requests are registered. Because of this, we have a significant amount of information on users in need of help. About a third are students and teachers; a quarter come from the business sector; a quarter are “regular” citizens looking for information; and the remaining users are mainly from the public sector and media (ref. 3). Tables and analyses are not necessarily part of their everyday lives, and they often need explanatory texts to understand a diagram or a field-specific concept.

4. Redesigning the subject pages at dst.dk

User insights

Apart from the insights gained through Information Services, our team also worked with web and search statistics to widen our understanding of user needs.

After this first round of insight, it was clear that the user group was varied both in terms of statistical knowledge and needs. Nevertheless, it was important to us that the new page design be sufficiently flexible to accommodate the full range of user types. Common to all users was a need for:

- Quick access to key figures
- A visual structure that supports rapid orientation

- Explanatory texts
- Transparent source documentation

Page design

With the user insights in mind, our web expert, UX specialist and designer collaboratorally designed a new subject page mock-up that was later user-tested and adjusted.

The new page design featured content organised by user needs: The most prevalent needs being met first at the top of the page, and the more "nice-to-have" needs being met last.

The new design featured (ref. 3: *See examples of the final design*):

- Key figures introduced in the very top of the page, representing the most searched-for figures
- A variety of different different visual elements, making the page easier to skim/navigate and more interesting for users not accustomed to reading tables and heavy texts
- Explanatory texts were added to each diagram/table, clarifying what is seen and avoiding misunderstanding
- Small snippets of documentation were added to each diagram/table (*More about the figure*), showing the latest and next update and source documentation
- User help was built-in and visually easy to spot (intro text, concept explainers, related content, Statbank-link, etc.)
- In the page bottom: Links to full documentation, link to Statbank, contact information and publications related to the subject.

5. The cross-disciplinary, editorial process

With the page design in place, next step was to plan the proces of producing a total of 238 new subject pages. With that large an amount of content, and the acknowledgement of the statisticians' other high-priority obligations, we decided to

spread the project over a three-year period, later extended to four years. This meant publishing the new pages one-by-one rather than simultaneously.

Sprints and workshops

The subject pages were divided into a total of nine "sprints", each sprint containing two or more pages from each of our ten statistical departments. Each sprint was kick-started with a workshop including all of the involved statisticians, typically 8-12 people.

Knowing the state of the existing pages, our team did not want the statisticians to succumb to the temptation of reusing their current content. We wanted the pages to be 100% user-oriented, and to achieve that, the statisticians needed to approach their pages with renewed perspective.

We therefore put together a workshop with two main objectives:

a) Enabling participants to adopt a users' point of view

We introduced several exercises aimed at understanding user needs, e.g. questioning: 'What figures are the user typically looking for?', 'What questions do they have?' The statisticians were then encouraged to answer these questions in their production of content.

b) Preparing participants to produce content for the new design

We reviewed the new page design step by step, with a focus on what participants needed to provide in terms of text, diagrams, etc. A short language and tone guide was introduced that highlighted concise, clear and everyday language. The guide also encouraged the participants to incorporate actual user search keywords (from our webstatistics) in their production of content.

After the workshop the participants were given an overall subject page guide (mirroring the content of the workshop), a template to fill in the content, and a deadline for completion (3-4 weeks after).

Editorial feedback and guidance

We were three communication specialists assigned to the task of running the editorial process. Once we received a draft, we would review it and provide professional feedback. This process typically meant refining the draft through a series of mail exchanges until reaching a final version that satisfied both sides.

A lot of feedback centered around making the content more understandable to users, e.g. by simplifying language, explaining the diagrams, clarifying statistical, subject-specific concepts, or suggesting keywords that better match the language of 'regular citizens'.

Other feedback would be more technical, focusing on the concrete requirements and limitations of the web design, e.g. word count or diagram colours, link policy, etc.

In this cross-disciplinary, editorial work, the statisticians contributed a strong subject-matter narrative, and the communicators helped secure a sustained user perspective throughout the process. This collaboration added significant value to the subject pages.

6. Working with SEO and GEO

In the process of producing the subject pages, we had a strong focus on SEO - and later GEO with the introduction of the big generative AI models (ChatGPT, Copilot, etc.). It was crucial that the pages accurately reflected the users' information needs, making it easy for both users and AI search engines to find them. This meant putting extra work into the texts of the page, this being the easiest format for AI machines to 'read'.

In the intro text, we would advise the statisticians to mirror the most searched user questions. For example:

How many people live in Denmark? Are we becoming more or fewer? The population statistics include people who have an officially registered address in Denmark.

How many tons of greenhouse gases are emitted? Which industries contribute the most and the least? The energy and air emission accounts respectively shed light on energy supply, the use of energy and the emission of greenhouse gases.

This practice not only accommodates the user, who lands on a page that perfectly reflects his/her own words (the perfect user experience!), it also helps the AI-bots that (hopefully) recognise our webpage as a source that has precise and credible answers for those questions. The result being a higher SEO and GEO-ranking.

7. Results

All of this sounds very promising, and in fact we *have* seen an improvement in our user satisfaction since starting the project. In our 2020 survey, 50% of users found “the website easy to navigate” - a share that went up to 55% in 2024, when only a third of the new subject pages had been published (ref. 4). Naturally, we expect the share to be even higher when the project is completed.

Also, we have seen a 49% drop in user enquiries from 2023 to 2025 (ref. 6). This could be seen as an indicator of improved SEO and usability: More users are finding data on their own.

An obvious indicator to measure the success of the project would be tracking the web traffic from search engines to subject pages. But sadly, *dst.dk* - like most other major information websites - have experienced a general decline in website traffic, since the integration of large-scale AI in online search a few years ago. Users are increasingly getting the information they need directly in the search browser, e.g. in Google Overview – no need to visit websites.

1. AI and the future of usability

The fact that users are increasingly accessing our statistics outside of our platforms raises many challenges. Challenges that all statistical offices face. The AI-revolution seems to be one we cannot overturn, so instead we must accommodate. Insure that AI prioritize our content above others. That leaves us with a more practical, but substantial challenge: How do we enable AI to read content that is *not* expressed in plain text? For example in tables, diagrams, dynamic key figures, and similar formats?

The Statbank, for instance, is where most of our valuable content resides, but at present AI has no way of accessing it. This is ultimately a loss for users, who in a search situation may easily end up choosing a less credible statistics provider simply because we - as an authority - are not sufficiently present.

The AI puzzle remains one of the most significant challenges in our communications department, and we are eager to hear how our Nordic colleagues are approaching it. Public institutions are not typically positioned as first movers in this field, but with collective action we may well defy the odds.

Appendix: List of references

1. Webstatistics, Statistics Denmark, 2026
2. Webstatistics, Statistics Denmark, 2023 (144 seconds in 2026)
3. Examples of the final subject page design:
 - a) <https://www.dst.dk/en/Statistik/emner/erhvervsliv/landbrug-gartneri-og-skovbrug/landbrug-med-dyr>
 - b) <https://www.dst.dk/en/Statistik/emner/miljoe-og-energi/groent-nationalregnskab/materiale-og-affaldsregnskaber>
 - c) <https://www.dst.dk/en/Statistik/emner/miljoe-og-energi/areal/arealopgoerelser>
 - d) <https://www.dst.dk/en/Statistik/emner/oekonomi/offentlig-oekonomi/oemu-gæld-og-oemu-saldo>
4. User Satisfaction Survey, Statistics Denmark, 2024
5. Information Service Year Report 2025 - many other factors may have contributed to this development incl. the discontinuation of telephone enquiries in early 2024, leaving only e-mail as a point of contact.