**Quality in statistics and relations with the press and media**

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**Abstract**

*As an official statistical authority, the national statistical institution has an important role in supporting a common fact-based perception of reality in society. Several of the traditional media also assume to have this role, and statistical institutions typically have formalised relations with the media.*

*From a media perspective, however, the development in the past few years may be cause for serious concern. The internet has made everybody a publicist. Combined with the development in social media, it has changed journalism – and possibly democracy. In the early days of the internet, the assumption was that it could contribute to strengthen our democracy and the public debate. Instead, the amount of knowledge has become immense, and it is often impossible to decode who is behind the information and what characterises the quality. The internet has become the most monitored place in society, and it is dominated by giant global players, such as Google and Facebook. In addition, these players are winning an increasing share of the advertising revenue that was previously an important source of income for traditional media. The challenge in this is emphasised by the fact that many media have not yet come up with a business model that can finance serious journalism and also work in a situation where online news take up ever more space.*

*A question is whether the national statistical offices have adjusted their relations with – and interaction with the media to raise awareness of opportunities as well as pitfalls in the use of the official statistics.*

*In this paper, Statistics Denmark will present various initiatives that we have taken based on these challenges and the effects we have achieved.*

**Keywords**: Quality, Communication, Press, Media, Public Relations,

**1. Introduction**

*1.1 A matter of Trust*

National Statistical Institutions (NSIs) around the world are facing a number of new challenges. One is competition from other - often private - providers of facts. As a result, users have to navigate amidst an increasing amount of information. In this context, it is essential that NSIs find ways to communicate “official statistics” that guide users in choosing high and declared quality statistics. At the same time, users of statistics are demanding more and a greater variety of data. For several years, these new challenges have led to intensive discussions both within NSIs and internationally between NSIs on how to meet user demands with effectiveness and efficiency. One cornerstone in these discussions is the quality of statistics.

We define the quality of statistics as “fitness for use”. We produce statistics to reflect important phenomena in society. Available sources are administrative data, other existing sources or traditional surveys. More recently, much discussion has been devoted to big data. The choice of source will affect the precision and validity we can achieve both in coverage and in the variables we choose to describe the phenomena we want to study and shed light on. The method of data collection and different respondents’ ability to give the required information are important for the reliability of data. Hence, we need to make clear to the user the choices and assumptions we have made in presenting our version of reality through statistics.

Our framework for quality management is compliant with the principles of quality statistics laid down in the ESS Code of Practice. These principles guide us on institutional issues and on our production processes as well as our products. On the institutional level, we have defined principles of independence, of commitment to quality, and of impartiality and objectivity. As regards processes, our framework provides principles of sound methodology, appropriate statistical procedures, non-excessive burden on respondents and cost effectiveness. We measure product quality by relevance, accuracy and reliability, timeliness and punctuality, coherence and comparability, accessibility and clearance. All of these criteria form part of the code of practice. In addition, it is essential that sound procedures in communication processes ensure that statistical messages focus on substance and not on "noise" such as minor incidents.

For our users to determine whether a statistical product is of good quality – that is, fit for their purpose – data alone is not sufficient. To help users find and understand our statistical products, it is important that they are disseminated using modern information and technology services. It is also important to give users easy access to metadata such as documentation of statistics or user-oriented quality reports. National statistical institutions typically operate with multiple target groups in their communication and dissemination strategies.

Common to most is that the press and media are a key target group, where the statistical messages are included in various contexts to an audience that does not have specific statistical abilities. In the dissemination to the media, potential pitfalls in quality and limitation issues have largely been handled in direct communication with the journalist who uses a given figure.

However, this system faces pressure on all sides - a pressure that requires a revisit to the documentation of the statistical quality, limitation and metadata. The changes express themselves in the market of facts, in the change in external demands and in change in the media workplace.

*1.3 Change in the market of facts*

As a fact and knowledge generator, Statistics Denmark sees an increased competition in the “market of facts”. The competition stems from different developments.

Firstly, a growing number of external parties produce reports, analyses, polls and scientific research with conclusions designed to influence the public debate and compete in the market of facts. These publications can be based solely or partly on data from Statistics Denmark or on data from other sources - e.g. from surveys conducted by private institutes.

Secondly, the common reference frame is more fragmented than ever. With the increased access to the internet, everybody can publish. At the same time the rise of social media - two thirds of the Danes are present on Facebook has developed into a strong channel for publication for single person media. The social media have also speeded the spread and impact of these news stories. The single person media differs from the traditional media in being more opinion based and less focused on objective facts. With the communication from Donald Trump as the most prominent example, social media have contributed to a widespread proliferation of false information or fake news.

Thirdly, the audience in the market of facts has changed with the social media and Google’s search engine as the main communication channels. As the social media and search engine algorithms give the target audience what the algorithm expects them to engage in, the feed and thereby the personal reference frame can evolve into an echo chamber of opinion based and potential fake news.

Fourthly, new areas uncovered by traditional statistics have developed in recent years, creating a demand for new data and new statistics – i.e. most statistics still focus on coverage of goods-producing activities. This demand is increasing with the rise of new data sources such as big data. New data is generated internationally in a variety of ways at an incredibly rapid pace via social media, mobile networks, smartly connected devices, and other automated data generating devices (internet of things). This data holds important information on new elements of society, e.g. sharing economy. However, virtually all of this new data is owned by the private sector and is subject to terms accepted by private business customers, often through a click on a cookie. Access to this data is generally not regulated in aspects other than data protection, so the statistical authorities have little opportunity even to experiment with processing it for statistical purposes.

This development has not only affected NSIs – but also the traditional media and their news production workflow.

*1.4 Change in the media workplace*

For the traditional media, i.e. newspapers and television news broadcasters, the outburst of the internet and social media has had huge implications on the news production workflow.

With the increased access to the internet, the one-time daily deadline has changed to an all-the-time deadline with several updates on a story during the day. All things being equal, this means more writing and less research time in the newsroom. It also implicates publication of more one-source stories with less documented assertions.

The massive audience presence on social media – in a Danish context mainly Facebook – has changed the structure of the public sphere. The social media is such a strong new platform for discussion and public debate that traditional media increasingly publish stories on social media and create stories from the discussions, statements and actions happening on social media. This can be seen as an indirect legitimation of social media as a central part of the public sphere.

This not only means that the public sphere has become wider with a new digital platform - it also implicates a more fragmented common reference point for public debate and a potentially more polarised debate. This fragmentation is due to the higher degree of personalised information flow on social media with a self-confirming flow of information.

For the traditional media, the digital revolution and the increased competition from new media have changed the conditions in the newsroom. I.e. the number of articles published daily per journalist has risen and more journalists are now covering several different topics compared to a more topic-divided workflow in earlier years.

The changes in the newsroom combined with the rise of new information channels such as social media have changed the conditions for dissemination in a statistical agency.

*1.5 Change in dissemination*

Statistics and all other news are published in traditional publications, online databases, the traditional press and research articles. However, throughout recent years, statistics (and news) have been published and commented to an increasing extent in social media and the online press. Through posts commenting on statistical results, NSIs can engage with a broader audience and receive immediate response from stakeholders and ordinary citizens. This creates attention within minutes after publication, but it also implicates new demands on our dissemination.

The widespread dissemination of statistics through social and online media means that the general user profile for official statistics is now more diverse then previously. It places more demands on ordinary citizens' understanding of the statistics. There is very little space (e.g. on Twitter) and time for any kind of analysis and detailed explanation from experts. Visual aids and compact interpretations that can be recycled quickly are therefore expected from statistical press releases and other communication channels. In this way, the interface between statistics and analyses becomes increasingly difficult for users to see.

*1.6 Strategy in changing times*

The changes in the structure of the public sphere, with the increased competition in the market of facts and the rise of more personalised online information channels, make new demands on Statistics Denmark and our dissemination, if the organisation is to remain a central reference point in the public debate.

The organisation has addressed these developments in the overall strategies 2020 and 2022 for Statistics Denmark. The organisation wants to assume a more extrovert role:

“Our goal in the coming years is to transform the institution into an extrovert data- and knowledge generator, which strengthens the common understanding of societal phenomena.” (Statistics Denmark, Strategy 2020)

Because of the overall strategy, a key element in the strategy for communication and dissemination is a shift from communicating a given set of statistics to communicating to a given audience.

Our task is hereby not only to present statistical data, but also to put them into perspective by means of comparisons and in-depth analyses and provide coherent pictures across different statistics.

In the following, we broadly present the key initiatives and evaluate their implications.

**2. Overview of initiatives**

Two units have been set up to ensure Statistics Denmark’s relevance to the political agenda and public debate: The analysis unit and the editorial set-up. In 2015, we established a dedicated section to support analyses throughout the organisation. The aim was to create a new basis for better analytical tools to provide informed analyses of official statistics. The unit's tasks are to help identify good ideas, help with writing analyses, help with statistical design and analyses and launch and run a new separate publication series, DST Analyse (‘DST Analysis’).

We put together an editorial set-up early in 2017, and the purpose of it is described in the press strategy. The task of the editorial team is to produce content that adds value to subjects of current interest in the public debate. The editorial team monitors public debate on a daily basis to identify these subjects. A primary source in the public debate is the media, thus more direct and time sensitive actions in press relations are essential in successfully implementing the strategy and adding value to the discussion in the public sphere.

**3. Feedback**

Although some stakeholders in the transition to a more extrovert dissemination strategy have expressed concern for our credibility and impartiality, the feedback from internal and external stakeholders has generally been positive.

The positive internal response is reflected in an increased eagerness to participate in the proactive dissemination work. Both the willingness to write up analyses and the awareness towards themes of interest in the public debate has increased among statistics producing employees. This awareness results in journalistic articles on issues relevant in the public debate and a more general shift towards more context sensitive news bulletins highlighting the currently interesting figures.

In terms of external feedback, we have seen in a rise in press mentions by 23 per cent from 2016 to 2017. The journalists on news media are noticing the change in our communication and are positive. The analyses are increasingly seen as go-to documents on current matters and are mentioned in the press months and years after their publishing date.

However, the extrovert approach has made a number of dissemination challenges visible.

*3.1 Challenges*

The challenges in the extrovert dissemination have different faces but are all related to misunderstandings and misinterpretations in the audience (the media) and implicates disseminations adjustments. Four illustrative examples will give you an idea of the spectrum of miscommunication and misunderstandings.

In 2016, Statistics Denmark published a major revision of the national accounts expanding the registered profit in 2015 by € 5.64 billion. The revision affected several earlier years and was extraordinary. Statistics Denmark invested a lot of time and energy in explaining the reasons for the revision – both to experienced users of the national accounts through our own traditional communication channels and to less experienced readers of the national accounts – e.g. journalists – through press releases, opinion pieces in newspapers, interviews etc. Despite our effort, the revision was simplified to give the impression of a “major calculation mistake” in the mainstream media, and the credibility of Statistics Denmark and the national accounts was questioned in the debate.

In 2017, after years of trying to raise finances to a survey on foreigners’ educational level, Statistics Denmark conducted a large survey to uncover the level on education. Until this survey, education acquired outside Denmark was not included in the statistics. The survey has resulted in a huge improvement of the quality of the statistics on education level in Denmark. However, this set of statistics is a component in an algorithm to calculate compensation between municipalities in Denmark hence decreasing subsidies to municipalities with a relatively high share of foreigners. This has led to a public debate whether the statistical quality is good enough for compensation algorithms and if Statistics Denmark lives up to its own quality requirements.

The analysis unit often creates ad-hoc categories and definitions to fit the findings to a public context. In general, these definitions are widely acknowledged as reasonable. However, the definitions – though described in the published paper - are sometimes disputed in a way that partly overshadows the conclusions in the analysis. This happened to an analysis on nature in Denmark. Agricultural areas were not included while parks and recreational areas were included. This definition was publicly disputed by mainly one very loud voice – though the definition was discussed and this critique was addressed in the analysis. The definition had even been presented to external parties before publishing.

In 2018, Statistics Denmark combined the register of notifications on children’s well-being with the register of support from authorities. In this way, we were able to shed light on what followed reports of concern about a child. However, the figures were heavily disputed by the Ministry of Children and Social Affairs. The critique was mainly centred on the quality of the data on supportive actions to the children. After the critique, Statistics Denmark highlighted the limitations in the data in the article, but the story about vulnerable children had now evolved into a discussion of how data was to be interpreted.

The four examples above all expose how the change to a more extrovert communication strategy in Statistics Denmark combined with a change in users and the public sphere in general add new requirements to the dissemination of quality and metadata.

**4. Concluding attention**

For many years, we have worked systematically to improve the quality of the statistics. Based on a coherent metadata system, we have described and communicated quality in an easy-to-use way for each statistical area. However, we must also recognize that our users do not always read or understand the documentation and reservations. A more editorial and analytical dissemination makes new demands on the distribution and contextual explanation of the documentation, and we need to develop methods for communicating various quality aspects to different target groups. An essential prerequisite for this is that the descriptions of quality and applications for the various statistical areas are homogeneous and that we have a common description and explanation of the statistical concepts we present to the users.

A necessary improvement in our communication will be to work closely with context-based documentation. The acknowledgment that many users do not find relevant documentation or critical reservations when using the statistics means that we must make it easy for the user. It is not enough that we can refer to a subpage on our website. In addition to the actual linguistic part of the communication, we have to work with technical solutions like fact boxes and mouse-over descriptions etc.

Greater transparency about the quality of statistics, even when it feels painful, is necessary. We can develop openness in several ways. Publication of quality reviews, reflections on how strong the statistical impact is on different detail levels, is one way. Another way is to ensure a constructive cooperation between different professionals in the statistical institutions. Quality experts, together with communication staff and journalists, should find the best ways to communicate important messages. Journalists, together with employees in the statistics units, should identify current topics where the statistics may be of current relevance. Through cooperation, employees in the statistical units must ensure an understanding of how their statistics, possibly combined with other statistics, can contribute to the current public debate.

This requires flexibility and willingness to work in new ways. If the official statistics are to still be experienced as relevant - with the increased competition and communication flow - and trustworthy at the same time, this is a necessary development area.

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