

**Shifting to electronic products - keeping strategies consistent with user preferences**

Paper submitted by Statistics Denmark<sup>i</sup>

**Summary**

In a fast moving world with increasing emphasis on user needs, it is of crucial importance to be continuously in contact with users and listen to them.

This paper presents results from three different investigations of user needs and especially the requirements of journalists. The investigations are conducted in the period November 1996 - October 1997.

One of the main points is that users of paper publications towards the end of the 20'th century are divided with respect to how they want statistics to be presented. Some users want electronic products and others still prefer printed versions.

Two strategies for shifting from printed issues to electronic products are indicated. The strategy first proposed is to make a product which is identical on paper and on the Internet. This strategy is primarily suited for products with only a few tables giving an overview over the latest figures and with comments on these. This type of products it turns out is especially useful for the press.

The second strategy is suitable for more data-intensive products. Here the product within a few years ends up consisting of a thin paper publication primarily with analysis, definitions, explanations, figures and a few tables and in addition to that access to a database on cd-rom or the Internet. However, in the short run the product will also consist of the database presented in printed tables, due to user preferences.

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## **Introduction**

Due to an increasing emphasis on user needs Statistics Denmark has conducted three user surveys between November 1996 and October 1997. Two of these were based on questionnaires and the latter on more intensive, unstructured interviews.

The intention of the surveys was to obtain more information about user satisfaction with our publications and information about user requirements with respect to these.

In this paper, attention will be focused on the way in which users prefer statistics to be presented. The requirements differ among the varying user groups. Therefore, it is useful to divide users into the following groups (or segments):

- The public (citizens and the press)
- The state (Parliament, central government and ministries)
- The business community
- The EU and other international organisations
- Research workers
- Local authorities
- Education and libraries

Our investigations have shown that citizens only represent about 3% of our subscribers to publications. Therefore, the press must be considered the most important channel for dissemination to the public. Consequently, the needs of journalists have been surveyed intensively in the investigations.

## **The surveys**

The first survey used in this paper was conducted in November 1996. 490 questionnaires were sent to subscribers who receive publications free of charge. 83 per cent returned the questionnaire.

In May 1997, a survey based on intensive interviews was conducted. 11 large and important users of statistics were interviewed.

In October 1997, a second questionnaire-based survey was conducted. 1,200 paying subscribers were involved and 708 (or 59%) answered the questionnaire. In addition to the subscribers, 23 journalists who were hand-picked and very important for the dissemination, also received a questionnaire. 18 of the journalists returned the questionnaire.

These investigations provided a vast quantity of information. Only a minor part of it is used in this paper. In addition to the investigations, Mr. Hans Bischoff, a famous and trend-setting journalist in Denmark, was invited to discuss dissemination at a management seminar at Statistics Denmark in October 1997. A few of his headlines are referred to in this paper.

## Do subscribers to printed publications want statistics on the Internet?

Considering a strategy of shifting from paper publications to electronic publications we have asked existing subscribers to paper publications whether they would consider it preferable to receive statistics on an electronic medium, off-line as well as on-line. Table 1 shows the results from the first survey.

**Table 1**

**User preferences (the first survey)**

Answer	Questions			
	Do you in general prefer statistics on an electronic medium (off- or on-line)?		Would it be convenient to have access to new data on the internet instead of paper publications?	
	Number	Per cent	Number	Per cent
Yes	150	44,2	106	33,1
No	189	55,8	214	66,9

Note: Around 80 per cent of the returned questionnaires contained answers to these questions.

The first survey was aimed at the subscribers who receive the publications free of charge. The question about electronic medium both off- and on-line divides these subscribers into two groups of almost equal size (excluding those who did not answer). Confronted with a question about the Internet the proportion who wants this is just one third.

In the second questionnaire survey directed towards paying subscribers, there was, in addition, a question about whether the user at that moment had access to the Internet. Table 2 shows the results.

**Table 2**

**User preferences (the second survey)**

Answer	Question		
	Would you prefer Statistics Denmark to provide more publications on the Internet for which a fee is charged?		
	Have access to the Internet	Have no access to the Internet	Total
Yes	222	13	235
No	106	115	221
Do not know	102	102	204

Note: 93 per cent of the returned questionnaires included an answer to this question.

First it can be seen from table 2 that there was an opportunity to answer *I do not know* in the second investigation. Secondly it is interesting (but not surprising) that most of those who want statistics available on the Internet actually have access to the Internet. Although there are still around 50 per cent of Internet users who either do not know or do not prefer statistics on the Internet.

Looking at the answers presented in tables 1 and 2 distributed by age, the pattern that emerges is that younger users are more positive towards the Internet and other electronic media than the older users (the figures not shown here). It seems plausible that people

who grew up in the computer age are more comfortable with electronic information. Persons at managerial levels are generally more negative towards the Internet and other electronic media than other users. The reason could partly be that persons at managerial level often need a brief overview of key figures which can handily be satisfied by a paper publication. But it should also be kept in mind that, generally speaking, managerial staff are senior people.

In the survey in May 1997 based on intensive interviews, the users were also confronted with a question about their opinion of paper publications versus statistics in electronic form. The following tendency to a coincidence between nature of work and preferred medium emerged. When statistics are used for analyses which involve vast quantities of data and when used for frequently repeated computations, electronic publications are preferred. When statistics are used in education, in journalistic writings, in minor analyses and just to achieve an overview, paper publications are preferred. Some users said that comments and explanations are preferred on paper and data are preferred in electronic products.

Broken down by types of institution which the users represent it seems that there is no clear pattern in the way in which answering the questions presented in tables 1 and 2 differs. Though there is a tendency of local governments to prefer data on the Internet, to a slightly higher degree, than other institutions.

### **The press**

As already mentioned the press is of crucial importance and was therefore in the second questionnaire-based survey treated separately from other users. Journalists are different from other users in the way that the overall dominating publication used by them is *News from Statistics Denmark* (a publication of the same type as the News Release from Eurostat) and in the way that they want the figures as soon as they are released. Of course, some other user types, notably the financial markets, also have the last mentioned characteristic.

18 of the 23 journalists returned the questionnaire. 15 had access to the Internet and 10 answered yes to the question: "Would you prefer Statistics Denmark to provide more publications on the Internet for which a fee is charged?" The situation here seems to be very similar to that of other users, except for a larger proportion of journalist having access have answered yes. Although the journalists in this survey are hand-picked and very important for the dissemination, the small number of persons involved makes it wise not to draw too strong conclusions.

### **Mr. Bischoff**

In line with the results just mentioned for journalists, Mr. Hans Bischoff at the management seminar at Statistics Denmark in October 1997 stressed that the Internet in the future will be the most important channel for dissemination also of statistics.

In our interviews and questionnaires many questions were posed and answered. Within the scope of this paper it could be of interest to look at a few more answers. In the second questionnaire, users were asked about the importance of three different elements of content in the publications. The answers were arranged on a scale from 1 to 5, where 5 indicates very **very** important and 1 indicates not at all important. The average score was derived in order to obtain an indicator of the importance of the three different elements of content. Table 3 shows the results for the subscribers and the journalists.

Table 3

Content elements:	Subscribers		Journalists	
	average score	number of answers	average score	number of answers
Description of method and definitions	3,67	643	3,39	18
Comments on trends	3,46	644	4,11	18
Graphs	3,24	628	3,67	18

Note: Not all returned questionnaires from subscribers included answers to these questions.

It is evident that for the bulk of subscribers there is an order of the importance of types of content. Description of methods and definitions is most important, while graphs are of least importance. To some degree, the reverse situation applies for journalists. Comments on trends are the most important, while description of methods and definitions is of least importance. Again we have to take into account that journalists are only represented by a small number of persons (although important persons).

### Mr. Bischoff again

At the management seminar already mentioned, Mr. Hans Bischoff also had a headline concerning the content. Statistics Denmark should, to a higher degree than is the case today, make comments on data, both in respect to trends and warnings (about statistical problems connected to data). According to Mr. Bischoff the reason for making more comments was that figures should always be seen in context - in pairs. Isolated data is meaningless. The statisticians know something that users do not know - this should be stressed in the comments.

### What do these results imply?

Let us now sum up the results to see whether they may help us to formulate a strategy for shifting to electronic publications.

First, we have to deal with the fact (although today's world is moving fast) that users of statistics can be divided into those who prefer electronic publications and those who still prefer paper publications. Both groups seem for the moment to be of an important size.

For the press, which is of crucial importance for dissemination, the overall dominating statistical product is *News from Statistics Denmark*, which is almost issued daily. This news release is characterised by comments and only a few tables, in other words exactly what journalists want. But they also want this product available on the Internet.

On the other hand a product, with comments and only a few tables, is what we have seen other users than journalists prefer on paper.

### One strategy . . .

A strategy in order to cover these different requirements could be to make a product, which is identical on paper and on the Internet. At Statistics Denmark we have actually already made this product. The *News from Statistics Denmark* is released at exactly the same time in a paper version and on the Internet. The Internet version, which uses PDF-format, looks like a photo of the printed version. In this way the different users are treated equally. The Internet version was implemented in the summer of 1997 and we

have now (March 1998) 126 subscribers, as compared to 530 subscribers for the paper version.

**... and another**

For more data-intensive products another strategy may be more convenient. We have seen that other users than journalists on average find descriptions of methods and definitions more important than comments on trends and graphs. We have also seen that working with vast quantities of data implies that electronic products may be preferred, while the text may be preferred on paper.

This indicates a product consisting of a thin paper publication primarily with definitions, explanations, graphs and a few tables and in addition to that access to a database on cd-rom or the Internet. However, in the short run we have to take into account that some users, as indicated in tables 1 and 2, still want statistics in printed versions. Therefore, a strategy for the next few years could be to let the product mentioned above also consist of the database presented in printed tables. In the long run, this part of the product could probably be omitted in consensus with user preferences.

**Conclusion**

In a fast moving world as ours, it is of crucial importance to be continuously in contact with users and listen to them. Using information from different investigations we have been looking at user preferences.

Two strategies for shifting from printed issues to electronic products have been described. The first strategy is for products giving an overview over the latest figures with comments on these, while the second is for more data-intensive products.

Both strategies deal with the fact that users of paper publications towards the end of the 20'th century are divided with respect to how they want statistics to be presented.