

CONFERENCE OF EUROPEAN STATISTICIANS

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Topic (b): Methods of statistical dissemination,  
policies and techniques

STATISTICAL STORYTELLING

Submitted by Statistics Norway<sup>1</sup>

Invited Paper

**Stories are more easily remembered**

In today's society, storytelling is a highly appreciated virtue. Journalists are appreciated for their abilities to tell stories, a good story is a must in movies, theatres and commercials, and storytelling-courses are increasingly popular.

Why? Of course, good stories catch our attention because they engage us, in one way or another. But, more important to us, *people remember good stories better than a rattling up of facts*. The makers of television ads have long ago seen this. They present stories that really stick to your mind.

The reason why good stories are more easily remembered, is that they start a process inside of people. They may invoke anger, surprise or happiness, and thereby relate to peoples' self. Impulses that start these kinds of processes are more firmly attached to the mind than impulses that are merely swallowed.

Statistics institutes are to a large extent paid by the taxpayers, and it's our duty to make sure our products are useful for those who pay us to make them. If people remember our statistics, they will be able to make use of them in several aspects of their lives - and hence they get more value for their money.

**Can statistics make good stories?**

Statistical storytelling may be regarded as an extended form of statistical analysis. As well as using analytical methods to find and explain the differences and trends, a good analysis points out to the reader what is important, it compares figures and points out differences, trends and tendencies, it puts the results into a context, it explains the unexpected. This is also what a good statistical story does.

But most texts from statistics institutes are far from being good stories. Usually they are more or less a verbal version of the tables, where the text rattles up the main figures, and that's it. This kind of text may of course start a thought-process in a reader with extensive knowledge on the subject. But for an average reader it might not awake any emotions or reflections, simply because the reader does not have the necessary knowledge to understand how it relates to life.

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There may be several reasons why statistics texts are boring. One could be that those who write them are often statisticians who might not be aware of the possibilities of storytelling. Another reason may be that statistics are supposed to be objective, neutral facts, and that any text that starts explaining or commenting on the figures, is considered political. We do not want to be biased, so instead we let media or others create the stories from our statistics.

But there are still possibilities to create good stories from statistics.

First, we have to realize that words have different qualities than figures. In presenting statistics, it may be useful to combine tables, graphs and text so that they complement each other instead of repeating each other's information. Whereas the tables provide exact details, the graphs are good at showing the main tendencies and the relation between different factors. The text is the best way to present the context of statistics, the causes and the effects. In this way, the different elements of the presentation enrich each other, and the text becomes the narrative part.

Second, if the author's eyes are open, several good stories might be found in statistical material. Historical statistics may focus on rise and fall of industries, names, ways of living and ways of dying. And even if the statistics do not naturally fit into a pattern for a dramaturgical plot, and even if some kinds of storytelling might threaten our objectivity, there might be other things to learn from the storytelling tradition: *To put people on our lap and tell them what the world is like*. This may sound arrogant, but it is still less arrogant than presenting things in a way that only experts understand.

Putting people on our lap implies taking them as a starting point for the presentation. If we want to start processes in people's mind, *we have to relate our statistics to their everyday life and their world views*. This can be done in several ways. Large numbers get more tangible if we divide them by the number of people concerned (per capita), and distances are more easily perceived if they are compared with known places. But most important of all: Statistics are much more easily remembered if we explain some of their background and consequences. "The emissions to air increased by 3 per cent last year" is certainly interesting, but it becomes much more exciting if we add: "This is due to more extensive burning of wood for heating. The increase may cause more respiratory problems in urban areas, and Norway is further away from fulfilling the Kyoto protocol". It is documented that people remember information much better if it is put into a context - and especially if this context is familiar in one way or another. Providing the context is also a good way of proving that the statistics are important. But to put statistical results into a broader context, good analyses are needed. Converting the statistics into good stories can only be done after analysing the figures.

Another useful tool for relating statistics to people's life is identification. The press often finds persons to illustrate the statistical results, because they know the importance of identification, and that a story is usually better if you have a person to "hang it on". This is a good way of spreading statistics, and one of the tasks for statisticians is to make it easy for media to use our results in such a way.

However, statistics institutes do not use personal cases in their presentation of statistics. We want to emphasize our protection of privacy. But it is possible to present statistics through fiction persons - i.e. persons that are made up to present a typical representative of a statistics, like "an average Norwegian fisherman" (although in many cases we might find that such a person does not exist - or is far from typical).

Of course, not all statistics are of equal importance. Some are interesting only for very few people. Storytelling includes filtering out some of the narrow statistics and giving priority to the important ones.

## Storytelling in Statistics Norway

Statistics Norway's slogan is "An institution that counts". And we will count even more in society if we, and our products - the statistics and analyses - get a larger place in people's memory. Making figures has been our main focus as long as we have existed. But in the last ten years, the focus has slightly turned towards adding words.

Ten years ago we mainly presented new statistics as tables and a text that repeated the content of the tables. In addition, we had a few publications with analyses and research results. After renewing the publishing routines, we established a new publication, Statistics of the Week, where new tables were presented alongside with a short text, which summarized the most important news. The text was edited by journalists, and built up as the inverted pyramid, with the most interesting news first.

In the summer of 1999 there was another renewal of our release routines. From then on, we have published new statistics every weekday on the Internet, with texts, tables and graphs. Our journalists edit every article, and cooperate with the statisticians to find the best way of presenting it, to ensure that *people feel smart, not stupid, after having read our statistics*.

A couple of years ago we introduced a web-magazine that presents statistics on a broader basis, with analyses, historical background etc. These are not new statistics, but are nonetheless interesting because of the way they are presented. Some of our best statistics stories are presented here. We have had a series of articles on historical subjects, with illustrations and graphs. And we have a series called "This is how we live", which tells about trends in Norwegian society. (Unfortunately, most of the text in our web-magazine is in Norwegian).

Lately we have also used several other formats for statistical storytelling. At last year's census, we presented an Internet exhibition, where the visitor could travel back to the censuses of 1801 and 1900 and meet people who were counted at that time, see the forms, read about the historical context, etc. The exhibition can be visited at [www.ssb.no/fob/utstilling](http://www.ssb.no/fob/utstilling) (in Norwegian).

We also use new technology for telling stories. Right now we are developing a CD-ROM, which presents the census results through games, stories and flash-animations. The main recipients of these CD-ROMS are the children born on the census day, and their parents. We will also publish most of this material on our web site.

It could also be possible to use cartoons more, especially in spreading statistics among children and young people.

Another plan is to develop one main web page for each of our main statistical subjects. These pages are supposed to contain the main figures and short text about the subject, with links to each statistics within that area. This will make it easier to give priority to the important statistics (so that we don't have to squeeze our minds to try to make good stories from obviously narrow statistics).

We also wish to put more dramaturgy into some of the texts - and not always present everything in the pattern of the inverted pyramid.

Statistics Norway is sometimes accused of being grey and boring. By using words and texts more extensively, and more consciously, we hope to add to some of our statistics a little bit of colour.