

Attracting new audiences to statistical dissemination

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1. INTRODUCTION

Today, national statistical offices are confronted with the same challenge: how to build a dissemination and communication strategy in a world where users have easy access to a deluge of data and information from various origins and where IT tools and design standards change so quickly that user behaviour and expectations are continuously modified?

Eurostat is also facing this challenge. A document recently adopted by the European Statistical System (ESS), states that "the ESS Vision 2020 aims for a future-proof dissemination and communication strategy that satisfies divergent and ever-changing user needs at both national and European level...". The first challenge is clearly to know what users want: we know our different types of users (decision makers, media, researchers, businesses, students, public at large...) but we have to identify how they get our data, what they do with our data, how they react to our outputs and which sort of new services they would like us to propose. In our changing world, this information cannot be obtained only through an annual user survey, but would require continuous and "real time" feedback from our users.

Since a few years, Eurostat has been developing a number of different and complementary tools which give an interesting and up-to date representation of our user needs. The objective of this paper is to share Eurostat's experience in identifying user needs and to show how this information has concretely been taken into account and integrated into the dissemination offer.

2. FINDING THE WAY IN THE LABYRINTH OF USER NEEDS

Since the start of the free dissemination policy in October 2004, the Eurostat website - with all of its associated tools and services - has been identified as the cornerstone of Eurostat's interaction with all kinds of users. It has become the single gateway for Internet users to have on-line access to all Eurostat data and metadata, news releases and publications, or general information about Eurostat. The website is heavily visited. On a monthly basis, the website records more than 3 million visits, over 4 million page views, 700 000 pdf downloads and more than 1 million extractions of data, which ranks the site amongst the top 5 websites of the European Commission. Increasingly, data is being downloaded in bulk, with monthly downloads from the Bulk Download facility reaching 1.5 million files for a volume of 450 Gigabytes.

In order to better understand the needs of our web users, Eurostat has progressively put in place a set of tools. Each of them helps to assemble a more global picture of what modern users expect from suppliers of statistical data.

2.1. Measuring satisfaction

To get an overview of the general level of satisfaction of users, Eurostat conducts an annual on-line user satisfaction survey. This classical method still provides valuable information and feedback on the most consulted statistical domains, the purpose and the frequency of the consultation, as well as an assessment of the quality of our data, publications, and dissemination practices. The 2014 survey had 5 000 replies, the highest response rate in 5 years. Students, academics and private users accounted for the largest proportion of respondents (44%), followed by commercial business (25%) and governments (19%). Replies from international organisations, including EU institutions, and from other users both accounted for more than 5%. As regards the media, a specific survey is also organised every year.

The survey questionnaire has remained similar through the years, allowing for a comparative analysis over time. Overall the results of the survey change only marginally from year to year. Globally, results are positive. Trust remains overwhelmingly positive with 95% of the respondents stating they greatly trust European statistics or tend to trust them. On the dissemination aspects, all user groups are rather satisfied with dissemination practices and support services provided by Eurostat. However, when asked to assess the easiness of access to European statistics, 45% of respondents said it was easy, 40% partly easy and 12% not easy. Improvements are mainly suggested in the area of the search facilities along with the navigation.

2.2. Detecting user behaviour

Website log files provide a wealth of information which is exploited through a detailed and extensive web analytics effort. Each month a 30 page monitoring report on Eurostat electronic dissemination is published on the intranet. Besides figures on the performance and availability of the website, this document compiles all relevant quantitative and qualitative information on what users consult and download; just to name a few: number of

consultations for each page, number of publications downloaded and precise timing of the downloads (particularly interesting when you want to monitor the respect of a system of embargo for news releases), navigation and origin of the consultation (Eurostat website, Google, apps,...), average time spent on each visualisation tool, number of consultations of each dataset, etc. This web analytics effort provides a very good picture of what users are interested in and which visualisation tools are used to their full potential. Also, information on usage of Eurostat's mobile apps is available with the number of downloads, giving an indication of the total number of users of such tools, and the number of data updates, providing information on real usage of the mobile app. Although it is clear that web analytics is not an absolute science, it allows Eurostat to identify trends and have a more precise view on what and how users consult the on-line statistical information and data.

2.3. Getting feedback in real time

Besides these more traditional methods of measuring user satisfaction and behaviour, it becomes more and more important to measure the impact of dissemination in an on-line world. Indeed, successful dissemination cannot be measured by means of web analytics and usage figures alone, but it needs to take into account new ways of information. For instance, the monitoring of social media brings further insight into who is using our information, how they use it, what they say and think about it and how Eurostat is perceived on the internet in general. Furthermore, statistics are increasingly used by a variety of websites and blogs which target specific peer audience(s). These redistributors serve as a quality vector by adding value to the statistical information supplied by Eurostat. Consumers of such websites will find the relevant statistical information presented in a way which is tailored to their specific needs or context. This enables Eurostat to reach more audiences than it would achieve solely through its own dissemination products.

To measure the impact of dissemination, Eurostat uses a tool to analyse its e-reputation in real time. The tool provides a better knowledge of our users (the ones who are on blogs or social media) and of our impact in the media, and gives a quantitative but also qualitative feedback on our work. In 2013, Eurostat was mentioned nearly 90 000 times (+19% compared to 2012) on the English, French and German speaking web, from 28 000 different identified sources in the media, blogs, forum and social networks. A detailed daily, weekly and monthly analysis of our impact on the web is published internally. In addition, Eurostat disposes of the direct feedback provided by the 35 000 followers of its twitter account. All this information together leads to a much better knowledge of our audience and gives us, in real time, a good idea of our impact on the web.

2.4. Communicating with users

Apart from measuring usage, Eurostat also communicates with users via a permanent user support network, ad-hoc focus groups and benchmarking exercises. For ten years, Eurostat has managed a system of national user support centres offering assistance in nearly all EU languages. Their role is to provide free-of-charge help to users who encounter difficulties in finding or understanding European statistics. In 2013, the whole support network treated more than 15 000 requests. Consumers of statistical information are

getting more and more demanding which is confirmed by a clear trend of increasingly complex questions. The valuable feedback collected via this permanent structure enables Eurostat to identify concrete user requirements and helps us to improve the quality of our services.

During the preparation phase of its new website, Eurostat organised ad-hoc focus groups to allow an exchange of views on the current website's strengths and weaknesses. These focus groups were interactive sessions with internal Commission and Eurostat staff, as well as with representative external users (journalists, academics, members of European Parliament, members of European Statistical Advisory Committee). The outcome of the focus groups was integrated in the design and structure of the new website. In particular, more attention has been given to facilitate access to statistical information for non-expert users and to improve the search functionality, in particular by limiting the need to master the statistical jargon.

Another important means in the continuous effort to make the website as easy to use and as functionally rich as possible is the benchmarking exercise, which is conducted after each major new release of the Eurostat website. It measures the overall quality of the Eurostat website against current best practices and in particular against the websites of other statistical institutes and/or international organisations.

Furthermore, a more formalised interaction with users is done via the European Statistical Advisory Committee (ESAC) representing users, respondents and other stakeholders of European Statistics (including the scientific community, social partners and civil society) as well as institutional users (e.g. the Council and the European Parliament). The Committee plays an important role in ensuring that user requirements, as well as the response burden on information providers and producers are taken into account in developing the Statistical Programmes.

As the pieces of a puzzle, all these different elements provide a relatively good picture of our users and their needs.

3. FEEDING USER NEEDS INTO THE DISSEMINATION STRATEGY

3.1. A more attractive website, less statistical jargon and a more powerful search

The launch of the new Eurostat website mid-December 2014 (ec.europa.eu/eurostat) was a good opportunity to better reply to user needs. In the consultation phase of the new website, user's comments often went in the same direction: the most important improvements to the website should focus on its attractiveness and on the access to data, while the information published should be made better understandable. Users also asked for more flexibility in ways to access the data, but did not request important changes to the structure of the website.

The layout and the design of the web site have undergone a major overhaul to make it more appealing and attractive for both basic and experienced users. This includes, for example, a more colourful design, the possibility to

insert photos or videos, and a particular focus on the daily management of the editorial content of the homepage to make it more lively and coherent.

Of course, presenting statistical information in a more modern way is not enough. Users, in particular non-specialists, complained about the difficulty to find quickly the information that they were looking for. For that reason, the new website offers several "entries" to ease access to our data, depending on the type of requests or the level of knowledge of users. A quick reply to the simplest requests (on population, GDP, inflation,...) is proposed through our "most popular tables", which include a list of around twenty most downloaded tables. For the more experienced users, a direct access to the full database is proposed where they will find their way to the datasets they need through a simplified navigation tree.

However, the most difficult requests are the ones which are "statistically speaking" less precise and for which users have a more thematic approach. A student, a teacher or a journalist may be interested to know which information is available on women, or on education, climate change, globalisation or tourism. For this type of request, a list of around 60 topics is proposed to users where they can find all datasets and publications relating to their research.

Finally, a new search engine has been developed which provides, on the basis of keywords, the most relevant datasets and articles/publications available. To facilitate the search, bridges have been created to enlarge the user request written in current vocabulary (such as profits, apartment or family for example) to the associated statistical terminology (gross operating surplus, dwelling or household).

3.2. Simple infographics for less experienced users and mobile apps

Data visualisation tools are another possibility to help users better understand our statistics. Their aim is to communicate clear information or a story through graphs, maps or charts. In recent years, several tools have been implemented by Eurostat, such as country profiles, inflation dashboard, statistical atlas, regional statistics illustrated and widgets. However, the use of these tools still requires a good understanding of statistics.

Therefore, Eurostat decided to complement its offer with a series of infographics to arouse interest and provide guidance to less experienced users. The interactive infographics serve as appetizers inviting users to explore the underlying data.

– *"Economic Trends"*

This infographic is associated with the publication of a selection of euro-indicator news releases, where non-specialists can get a better understanding of the most recent economic trends in the EU, the euro area and the EU member states. The tool will show the most recent data available, since the displayed data is fetched on the fly via web services.
<http://ec.europa.eu/eurostat/cache/infographs/economy/index.html>

– *"Young Europeans"*

"Young Europeans", to be released the 2nd quarter of 2015, is an interactive infographics released in connection with a Eurostat publication on youth. "Young Europeans" provides the possibility to compare the way of living of young people aged 15-29 of the same age and sex.

Although the tool is primarily intended for young people it will also be of interest for parents, decision-makers, politicians or teachers who want to know more about the young generation in Europe.



– *"Quality of life"*

This infographic shows both objective and subjective indicators covering the multiple dimensions of life satisfaction. The tool proposes a combination of photos and graphics to display the information in an attractive and innovative way. An easy recognizable logo for quality of life statistics has also been created. The tool will be released in the 2nd quarter of 2015.

– *"My country in a bubble"*

This simple visualization tool allows users to see in a single image the situation in Europe for more than 140 statistical indicators covering most economic, social and environmental domains.

This tool will not throw precise numbers at users but it will allow them to get a perception of the situation of a given country compared to other EU countries and invites them to discover more.

"Mobile apps"

As regards Eurostat's presence on mobile devices, Eurostat has released three apps (Country Profiles app at the beginning of 2012, EU economy app at the end of 2013, a quiz on European statistics just released in autumn 2014).

The Country Profiles app shows the latest data for a set of about 160 key indicators. It also allows for displaying the data in the form of dynamic graphs and maps for each indicator.

EU Economy app gives mobile access to the most important short-term macroeconomic indicators (Principal European Economic Indicators-PEEIs) for the euro area, the EU and its Member States. The app is available in three languages: English, French and German. It is mainly designed for professionals who need a quick overview on the most recent economic information.

The Eurostat Quiz app allows users to test their knowledge about European statistics classified by themes. In answering the questions, users can compete and learn interactively about the European countries. The quiz and the questions are available in 25 languages.

3.3. Contextual dissemination

Websites of statistical data providers usually respond quite well to the demands of statistically experienced users by offering various possibilities to access, visualize, download and re-use the data and even in exceptional cases where accessing the data is less obvious, experienced users will be "desperate" enough to find their way to the data they are looking for.

The picture is somewhat different for less experienced users who find statistical information in a contextual way. Typically, this type of users does not access the data directly from the data provider but they consume statistical information via other channels which are traditionally fed by redistributors getting the information from specific publications, press releases or ad-hoc extractions. However, with the shift from a paper based information gathering to a more modern and on-line retrieval of information, statistical data providers have an opportunity to attract new audiences by extending the contextual dissemination beyond the more traditional channels.

During the last years new types of data redistribution have emerged on a variety of websites and blogs targeting specific peer audiences. These new redistributors of statistical data serve as a quality vector by adding value and context to the statistical information. The consumers of such websites find relevant statistical information in an environment which is familiar to them and the data is presented in a way which is tailored to their specific context or needs. In order to reach broader audiences data producers have to extend their presence in the contextual dissemination and look for synergies by promoting and strengthening the collaboration with these redistributors. By doing so, statistical data providers will reach more audiences than they would achieve solely through their own dissemination channels and this can be done at little or no extra cost. Furthermore, this collaboration will allow to collect valuable first-hand feedback from the redistributors on the usefulness of the statistical data provided.

Typical challenges of contextual dissemination are license policies, automated data access and making the data easily understandable providing links to the relevant metadata or source datasets of the data provider.

Eurostat has addressed these challenges. As a general principle, with few exceptions, Eurostat has a policy of free re-use of its data, both for non-commercial and commercial purposes, provided that Eurostat is mentioned as the source of the data. Automated access to the data is facilitated by the use of web services or the bulk download facility which both offer built-in possibilities to obtain URLs to the source datasets and the relevant metadata. These measures guarantee a seamless integration of data in a website of a redistributor.

Successful dissemination cannot be measured anymore by looking solely at the usage of a data provider's website but has to take into account a much larger playing field. One can argue that real dissemination is happening less and less on a data provider's website and more and more in contextual dissemination on third party websites where the statistical information is consumed in a context which is useful, meaningful and familiar to the user.

The links and screenshots below are examples of contextual dissemination of Eurostat data.

- (a) Google search integration in 34 different languages

Unemployment rate Belgium (EN)

The screenshot shows a Google search result for 'unemployment rate Belgium'. The search bar contains the text 'unemployment rate Belgium' and the search button is visible. Below the search bar, there are navigation tabs for 'Web', 'Images', 'News', 'Maps', 'Videos', and 'More'. The search results show 'About 1.680.000 results (0.43 seconds)'. A cookie notice is displayed: 'Cookies help us deliver our services. By using our services, you agree to our use of cookies. Learn more Got it'. The main result is a line chart titled '8.4% (Feb 2014) Belgium, Unemployment rate'. The chart compares Belgium's unemployment rate (8.4%) with France (10.1%) and the Netherlands (7.3%) from 2008 to 2014. To the right of the chart is a map of Belgium with its flag. Below the chart, there are several links and snippets: 'Belgium Unemployment Rate - Trading Economics', 'Belgium Youth Unemployment Rate - Trading Economics', and 'Economy of Belgium - Wikipedia, the free encyclopedia'. On the right side of the search results, there is a section titled 'Belgium' with a description: 'Belgium, officially the Kingdom of Belgium, is a federal monarchy in Western Europe. It is a founding member of the European Union and hosts the EU's headquarters as well as those of several other major international organisations such as NATO. Wikipedia'. Below this is a 'Related statistics' table:

Statistic	Value
GDP per capita	46,877.99 USD (2013)
Gross domestic product	524.8 billion USD (2013)
Population	11.2 million (2013)

Below the table is a section titled 'Unemployment rate elsewhere' with a table:

Country	Rate
Germany	5.1% (Feb 2014)
Greece	27.2% (Feb 2014)
Norway	3.5% (Feb 2014)

At the bottom of the search results, it says 'Sources include: World Bank, Eurostat'.

Minimum wage Belgium (Chinese)

每月 1,501.82 欧元 (2015 年 1 月)
比利时, 最低工资

国家	最低工资 (EUR)
比利时	1,501.82 EUR
荷兰	1,495.20 EUR
法国	1,445.38 EUR

来源包括: 欧洲统计局

欧洲各国最低工资概况
blog.boxun.com/hero/201308/sgy/13_1.shtml

2013年8月15日 - 根据欧盟统计局 (Eurostat) 针对有订定最低薪资的成员国所做的统计, 每月 ... 比利时最低工资在10年内成长29%, 在成员国当中名列前茅, 最低工资 ...

欧盟国家最低工资标准相差约十倍
blog.sina.com.cn/s/blog_8517a8100102vzu7.html

2015年3月4日 - 欧盟国家最低工资标准相差约十倍_比利时_新浪博客_比利时_时光 ...

比利时度假打工
blog.fashionguide.com.tw/.../比利时度假打工全攻略 - 转为简体网页
2013年11月16日 - 下面的表格是我从Bloomberg上找来的, 最高的最低工资排行, 其中比利时排名第四。以下数据以美金来计, 若我们以今日的汇率来算, 一美金 ...

比利时

欧洲的国家

比利时王国是一个西欧国家。它是欧洲联盟的创始会员国之一, 首都布鲁塞尔是欧盟与北大西洋公约组织等大型国际组织的总部所在地。比利时自北起顺时针分别与荷兰、德国、卢森堡和法国接壤, 西面则濒临北海。

维基百科

相关统计信息

失业率	8.6% (2014年10月)
人口	1120万 (2013年)
预期寿命	80.38岁 (2012年)

其他国家/地区的最低工资

卢森堡	1,921.03 EUR 每月 (2014年7月)
西班牙	752.85 EUR 每月 (2014年7月)
保加利亚	173.84 EUR 每月 (2014年7月)

来源包括: 欧洲统计局, 世界银行

- The Guardian newspaper (UK) has on its website [Europe by numbers: the complete interactive guide](#)
- The Institute of international and European affairs has published an [EU unemployment infographic](#)
- The magazine [Capital](#) (FR) redistributes economic indicators

Google and Capital asked assistance from Eurostat in setting up the tools, the two other examples were realised without Eurostat's help.

4. CONCLUSION

All these actions are part of Eurostat's efforts to better respond to user needs and to reach new audiences. We clearly see a shift in the way people are consuming statistics, they are becoming more demanding in using data in specific contexts with appropriate visualisations. As a data producer we will not always be able to respond to this increasing demand for visualisation of statistical data. Therefore we will have to focus more on supplying timely data that can be easily re-used in different dissemination contexts.