

## **Statistical literacy portal: more than a learning platform**

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### ***Abstract***

INE-Spain Statistical Literacy portal (Explica) takes a wide approach to reach the goal of improving the statistical knowledge in the society. Indeed, it is not only seen as a learning platform targeted to the academic institutions and main members (teachers and students), but also as a marketing tool in order to spread, in a user friendly way, important statistical concepts and values of official statistics to a wider audience.

In addition to providing resources directly applicable in the classroom such as tutorials on basic statistical concepts, how to conduct a survey, how to make data meaningful and so on, Explica also presents specific aspects of official statistics, that help to properly understand these concepts and to avoid misinterpretations. Good examples of it are the Statistical Secrecy, Life Expectancy, etc.

Through Explica, values of official statistics and quality in particular are promoted, but in a less formal manner, using visual aids in videos, so it can be easier to grasp.

Furthermore, and thanks to social networks (YouTube, Twitter) its content is spread to a public that is not originally a user of our website, reaching a wider audience and consequently, achieving the goal of making official statistics and its values accessible to all.

## ***Introduction***

In the field of official statistics, there is an ever-present concern that the information produced be widely used in decision-making by all those involved in social issues. According to the inventory of existing statistical literacy practices, produced from the group that is working in the ESS Digicom Project<sup>1</sup>, most offices have carried out projects in order to broaden statistical knowledge in our social ambience, and contribute to the development of the knowledge society. This is true in the case of the National Statistics Institute of Spain (INE), and its Statistical Literacy Portal called **Explica**.

## ***What is “Explica”?***

In 2010 with the celebration of the World Statistics Day, the INE started to work on this initiative with the objective of helping people to become familiar with some basic concepts that are handled in the statistical work. Besides that, we wished to raise awareness of the statistical activity undertaken by the INE. We have attempted to do this in such a way that everybody can understand it through simple activities like games, videos and applications. In developing this website, our aim has been to increase statistical literacy among people and therefore promote the proper use of statistical information.

One of the characteristics of our statistical literacy portal is that it is addressed to teenagers and adults; that there is no distinction between teachers and pupils and that this is an embryo project open to new sections and contents. The approach to improve statistical literacy is a never-ending story that has to be constantly aligned with society's needs and expectations. Because of that, Explica has a modular structure.

This experience has also been recognized as a good practice in the last Peer Review exercise in the ESS: “INE has spent considerable effort on promoting statistical literacy. Thus, INE has developed the web portal Explica which is an attractive pedagogical system with the objective to educate users in statistics; increase their understanding of statistics, how statistics are developed and how they can be used. The Explica initiative has a lot of user-friendly content for students and the general public such as a series of short videos explaining statistics and developed for the web and for YouTube, and a competition programme for high-school students termed ‘Statistical Olympics’. This system has not only found an audience in Spain but also a large audience in Latin America. The Peer Review team considers this a noteworthy contribution to the advancement of statistical literacy.”

*“We provide the European Union, the world and the public with independent high quality information on the economy and society on European, national and regional levels and make the information available to everyone for decision-making purposes, research and debate.”* That is our mission as formulated in the European Statistics Code of Practice and we are fully committed to it. We are rightfully proud of our considerable strengths: coherent, time-consistent and reliable statistics based on internationally harmonised concepts, sound methodologies, etc.. We know this, but, do the users know it too? We have to promote it. There are several ways for doing it and one is Explica.

The ESS Vision 2020 says: *“Our ambition is to stay relevant by building upon our strengths. Our main focus will be on our outputs since that is where our value to society lies. We want to increase our value by communicating our products and services in an active and coordinated way”*. In addition, in other section: *“Verifiable quality is our main asset and comparative advantage. Therefore, we will put more emphasis on publicising quality as a driving force for all our activities and develop new meaningful and transparent ways of communicating the user-oriented quality assurance mechanisms applied to our statistics”*. Explica tries to collaborate on this too.

## ***What we mean by “more than a learning platform”:***

Apart from its main goal of increasing Statistical Literacy in the society, there are other aspects or facets of Explica I would like to mention:

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<sup>1</sup> **DIGICOM** stands for Digital communication, User analytics and Innovative products. The project's goal is to create new, innovative dissemination products, tools and services for ESS statistics.

### 1) **Partnerships which promote Official Statistics**

INE has carried out partnerships with other institutions:

- a) A collaboration with the Autónoma University of Madrid. Thanks to that, a group of students has been working at INE with INE staff in the “Explica” project. The result of this collaboration is very positive, not only for the enrichment due to different points of view, but also for the enthusiasm and initiative of the students.
- b) INE works with the Complutense University of Madrid and the Spanish Society of Statistics and Operations Research (SEIO) in the Statistics Olympics. It is an award competition in statistics, which aims to: promote curiosity and interest in statistics among students; encourage teachers in the use of new materials for the teaching of statistics by promoting the use of real data; show the role of statistics in various aspects of society and promote teamwork and collaboration to achieve common goals. Year after year, the number of students is increasing.

### 2) **Recognition by the Spanish media: Expansion Award**

INE has been awarded for promoting one of the 50 best digital ideas by the *Expansión* magazine, in the Digital Education category. More than 400 candidate projects have participated in this call.

With this award, *Expansión* Economía digital acknowledges the initiative of the INE for its Statistical Literacy portal EXPLICA, through which it “tries to increase statistical culture in society by allowing a better use of information”, according to *Expansión*. This portal, in which videos, presentations, games and curiosities are found, shows some basic aspects managed in statistical work and in the activity carried out by INE.

Therefore, it brings official statistics closer to the non-expert public and, specially, to the education community. The Explica project is complemented by initiatives such as the Statistical Olympics for Secondary Education students and visits by the schools throughout the academic year to INE Provincial Units.

Through this award, Explica is more known in Spanish society, which means that INE is also.

### 3) **Taking into consideration public opinion**

In addition, the importance of public opinion is included in Explica. On the one hand, it has a section dedicated to School Visits, where the educational centres of all of Spain may contact the responsible parties of the INE in order to make an educational visit to the Institute, and gain a closer view of official statistics. On the other hand, there is a section entitled “Your opinion is important to us”, a site that is open to the participation of all visitors, for its own improvement. This is based on the concept of there being no one better to provide ideas or propose improvements than the users themselves.

### 4) **Inside INE**

The creation and incorporation of Explica into the institution's website reflects a profound change in the level of organisational culture, and a concern not limited to merely publishing data. It entails promoting a certain statistical culture in society, which helps with understanding its value and functionality. This has involved a transformation in the way professionals at the INE think; these people work, not only in disseminating statistical information, but also in teaching it, investing in knowledge available to everyone.

Furthermore, of all the various aspects which were raised earlier in this document, one very important one is the consideration of Explica as a marketing tool.

#### ***“Explica” as a Marketing tool***

First of all, how does marketing fit in with official statistics? In our context, we can say ‘*Marketing is the process of creating awareness among users of our products and services*’. The first and foremost reason for the Statistics Office to involve itself in marketing is to inspire, to increase and to spread the use of statistics.

In these times of data revolution, the role of Marketing is more important. There are other data providers and other sources of information. Therefore, we have to make users aware of the importance of official statistics and of its quality.

In Explica, there are sections or videos, which are used as a marketing tool because they promote the European Statistical System, the INE, official statistics and quality. They are useful to increase the visibility and trust in official statistics. Users can get access to this content directly on YouTube via the **INEdifusion** channel or in Explica.

Furthermore, and thanks to social networks (YouTube, Twitter) its content is spread to a public that is not originally a user of our website, reaching a wider audience and consequently, achieving the goal of making official statistics and its values accessible to all.

### ***How videos help to promote values of official statistics - Some examples***

#### ***“What is the European Statistical System?” video***

It is a very complete video that promotes the **values and quality** of European statistics describing the European Statistical System (ESS), explaining what the ESS is, who its members are, what Eurostat is and how it works. At the same time, it outlines the importance of using official statistics for decision-making.

Besides that, the video mentions the principles of European Statistics Code of Good Practice (independence, quality, credibility and usefulness among others) and explains how work is allocated in the ESS, describing the European Statistical System Committee and The Community Statistical Programme. It is just an easier way of perceiving the reality of the ESS instead of reading a paper or a presentation.

In conclusion, the video helps to increase the **visibility and image** of the statistical offices and Eurostat, while increasing users' trust in official statistics.

Link to the video in INEdifusion: <https://www.youtube.com/watch?v=CKI038mCHc4>

On this section of the website of Statistics Lithuania, there is a link to the video:

<http://www.stat.gov.lt/en/euopos-statistikos-sistema>

#### ***“Quality principles at INE-Spain” video***

In achieving the ESS Vision 2020, we will be guided by the United Nations Fundamental Principles of Official Statistics and the European Statistics Code of Practice. This Code defines the quality indicators of European statistics in terms of the institutional environment, statistical processes and outputs. The general public do not have to know that and maybe expert users either, so through this video we try to highlight the importance of the principles of the Code and at the same time we **promote the Code**.

This video introduces the principles of the Code of Practice in such a way that it is not only a set of rules to follow but also shows the way we are doing things in order to produce high quality products based on our institutional values.

Link to the video in INEdifusion: <https://www.youtube.com/watch?v=70WVMKaAHkE>

The video can be seen here too: <http://www.dailymotion.com/video/x2pu5x4>

<http://youfacebookclip.com/search.php?q=ine-spain>

#### ***“Statistics are about everyone” video***

Apart from presenting a direct message of thanking the respondents for their collaboration, this video conveys the idea that official statistics are a **public good with useful data**. It is intended to increase the awareness of our production.

Link to the video in INEdifusion: [https://www.youtube.com/watch?v=jucoP4VB\\_3Q](https://www.youtube.com/watch?v=jucoP4VB_3Q)

### ***“A day in figures” and “If Spain were a village” videos***

The kind of videos like "A Day in figures" and "If Spain were a village" try to show the usefulness of official statistics in reflecting the society in which we live. In particular, to celebrate the World Statistics Day in 2010, INE launched “A Day in figures” video.

Apart from INEDifusion channel, the video can be watched on:

<http://unstats.un.org/unsd/wsd/Videos.aspx>

### ***Statistical Secrecy and Microdata files videos***

These are a special type of videos under the brand: **Statistical Pills**. They are very short videos directly focused on explaining some statistical concepts. These videos deal again with one of the core principles of the official statistics like statistical confidentiality.

Link to the video in INEDifusion: <https://www.youtube.com/watch?v=9OF31dw8OF8>

[https://www.youtube.com/watch?v=H5\\_a5VYDuHY](https://www.youtube.com/watch?v=H5_a5VYDuHY)

Apart from INEDifusion channel, the video can be watched on:

<http://www1.unece.org/stat/platform/display/DIS/Videos>

### ***“Seasonal adjustment and Calendar effect” video and “Linked population” video***

All of us know the important role that media play in the dissemination of official statistics. They are, at first-hand, those who communicate the official statistical information to the public. They are an invaluable partner in communicating statistics to the general public. It is important that they understand complex concepts that they can explain to the general public. For example, Seasonal adjustment and linked population are both difficult concepts to understand. If the journalists understand well, they can write proper articles in the news. As the VISION 2020 says, “*We will invest in educating our users to increase their statistical literacy, in particular to mitigate the risk of improper and unjustified use of our statistical products and services*”.

Link to the video in INEDifusion: <https://www.youtube.com/watch?v=3XjXehe-JPo>

<https://www.youtube.com/watch?v=u2tBiK3qsyQ>

### ***INE. National Statistics Institute video***

It explains what INE is and its work, who we collaborate with and how important statistics is for society.

The video can be viewed in this website: <http://www.statisticsworldwide.com/offices>

Link to the video in INEDifusion: <https://www.youtube.com/watch?v=x6ftqT3p598>

### ***International Cooperation video***

We have been working on international cooperation (outside and inside the ESS) for many years, (sharing knowledge, experiences and methodologies but also by sharing tools, data, services and resources where appropriate). It is important that people know that we are not alone in doing things. The collaboration is based on agreed standards and common elements of technological and statistical infrastructure.

Link to the video in INEDifusion: <https://www.youtube.com/watch?v=327odn2-pc8>

More examples can be found at the Youtube channel INEDifusion.

Other websites in which INEDifusion videos can be browsed:

<http://ekstrasens-fight.ru/user/UCdvhU6sA5J0vIbs70xxxoAQ>

<http://www.esemgoldex.com/youtube/v/a96WHh69xvU/>

<http://1080.plus/qKs-mNOMBeE.video>

<http://www.dailymotion.com/video/x2pu5x4>

### **Conclusion:**

When, five years ago, the INE created this new channel of dissemination, several objectives were kept in mind. Some of them were to reach new users, to increase the visibility of the statistical operations carried out by the INE and to enhance statistical literacy among the general public by using this visual tool.

Investment in statistical literacy is beneficial for empowering users to appreciate the values on which official statistics are produced. Users with an improved knowledge of statistics would demand high quality products to base their decisions, so promoting statistical literacy means that official statistics are being promoted.

This project engages with the new ESS Vision 2020 as it provides valuable information about official statistics and their high quality standards and *“improves the statistical literacy of European citizens and institutions by guiding them through the deluge of data and information from various origins.”*

### **References:**

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