INFORMATION SOCIETY IN PORTUGAL:
HOW MUST WE MEASURE, EVALUATE AND MONITORATE THIS PHENOMENON

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ABSTRACT
The contemporary society, commonly known by various terms among which stands out the "Information Society" (IS), is at a turning point. In our collective and individual lives, information and the Information and Communication Technologies (ICT) assume a central role. This new paradigm and new society organization model requires, first of all, the adoption of practices for measuring the degree of involvement of countries and regions in developing higher standards and, secondly, a permanent and real-time monitoring of the phenomenon in order to maximize the opportunities and oppose the constraints encountered along the route. In the various exercises carried out by organizations of many different natures in the sense of measuring the degree of development of countries (and regions) on the Information Society, there are identifiable constraints that may hamper the political decision-making process (public and private), that can cause, particularly in the Portuguese context, the aggravation of asymmetries between different regions in various fields. This research aims to respond to the need to know how must we measure, evaluate and monitorate the Information Society in Portugal.

BACKGROUND
The "revolution of Information and Communication Technology (ICT)" (Webster, 1995) is still proceeding at a furious pace, causing social, economic and political profound and irreversible transformations in the way society and the economy are organized; in the way citizens interact among themselves and with organizations, how they work, how they spend their leisure time and how they exercise their citizenship; in operating, organizational and technological business practices and the relationship between public administration and its "customers" (citizens and businesses). In fact, we have a society which contains in itself a set of characteristics that are disruptive in relation to our recent past, where the information assume a central role in all types of human activity (Castells, 2001). This new model of organizing society in which we move, stimulate, invariably, the great challenge of measuring the extent of the problem. In other words, is required to adopt strategies that allow us to know to what extent a country or region is inserted or not in the new global context and take advantage of generated key opportunities. Actually, the profound knowledge of the constraints that prevent the full integration of a country or region in the information society is absolutely essential for the decisions on public (and private) policies will have significant impacts on improving citizens quality of life and business competitiveness.

EXPECTED CONTRIBUTIONS:
This research is expected to contribute to a deeper knowledge of the level of integration of Portugal in the Information Society. This means that, first, we need to identify the key issues involved in building the Information Society. The exploitation of already existing international key metrics used, directly or indirectly, in the measurement of the phenomenon proved to be a decisive leap forward, towards the identification of the main methodological constraints, particularly in terms of the limitations of some commonly used indicators. One such indicator is the "broadband penetration rate" which, although it is one of the most used indicators in the arguments of experts and organizations who work within the area of Information Society, have significant flaws that, if not taken into account, will distort the conclusions drawn, influencing negatively the decision-making process (e.g., mobile broadband subscriptions, population density or quality service are not taken into account; the demographic characteristics of countries or regions are not taken into consideration). Another frailty of this indicator, with particular relevance to the portuguese reality, is that the portuguese telecommunications regulator (ANACOM) does not provide information on the "broadband penetration rate" with the NUT's II level. However, this could conceal the regional differences that will exist in the proliferation of broadband across the country (one of the most important aspects in developing the Information Society), with all the consequences that such situation has in the cohesion of any given country, Portugal in particular. Moreover, the veracity of this hypothesis is valid with other indicators such as the one that corresponds to the distribution of television service subscribers through fiber, information relating to the second quarter of 2010 reported by ANACOM.
The demonstration of the existence of regional asymmetries in building the Information Society in Portugal, through the development of a specific methodology to monitor the breakdown phenomenon with NUT’s II level, inspired by several existing international models, will result on one of the major benefits of this research. At a time when significant investments are underway, for example, in New Generation Networks that allow us to expect major impacts on both GDP and even in employment (Qiang and Rossotto, 2009), it is important that the measuring progress in the Information Society context is conducted in credible and rigorous methods. This paper will demonstrate some of the problems that exist in the measuring process of the development degree of the Information Society in Portugal and in the various regions that comprise it, these problems that often hinder the ability to anticipate impacts (social and/or economic) of a given policy measure that fits this area. It is further expected to contribute to the presentation of the basis for creation of a permanent observatory that has precisely that mission: measuring, evaluating and monitoring the Information Society in Portugal.

CONCLUSIONS

In this research, we expect to get to answer questions like:

- What are the main metrics that are dedicated to the international measurement of the phenomenon of the Information Society?
- What are the limitations of the main indicators internationally used in measuring the Information Society?
- What is the level of portuguese development in terms of Information Society and to what extent are regional disparities hidden in the development of IS?
- What is the gap between different Portuguese regions (NUTs II) in terms of degree of involvement in the Information Society?
- How can we anticipate the impacts of a given initiative?
- What mechanisms should exist in a country like Portugal in order to statistical information related to the Information Society is available as near as possible to the period to which it refers?

REFERENCES


AUTHOR BIOGRAPHY

Luís Miguel Ferreira was born in S. João da Madeira, Portugal, and studied Mathematics in Faculty of Science at the University of Oporto, where obtained the graduate in 1994. In the same school, later, in 2001, obtained the Master degree in Teaching Mathematics. Actually, is Phd student in Department of Information Systems; University of Minho, Portugal. His e-mail address is: lmferreira2@gmail.com.