

# Chapter 22

## Multichannel Modality in Displaying Information

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### ABSTRACT

*Computer science and telecommunications are increasingly important in society and this leads also public administrations to take advantage of ICT, in order to communicate with citizens in a more rapid and simpler way than the complex and paper-based bureaucracy of the past. While on the one hand the use of these technologies responds to the duty of any public institution to involve the largest number of addressees, on the other hand, society must also consider the limitations of these technologies. Firstly not everybody is so familiar in their use. Moreover, the digital administration thus becomes virtual, accessible only through technological devices and not present in a physical location, and is therefore essential to ensure full coverage of the territory, which is currently not always possible. The main novelty of this paper is the implementation of an automated system capable of adapting different types of government services to multiple communication media. The joint exploitation of multiple technologies allows to use the strengths of one of them when are found the limits of another, making this multichannel modality the solution to the requirement of ICT in public administration.*

### INTRODUCTION

During these last years the evolution of technology is unceasingly faster. Advanced information and communication technologies could play a key role also in facilitating access to public information improving quality, speed and reliability of services delivered to citizens.

The concept of e-government, in this context, refers also to bring the public administration closer to citizens. This should be obtained thanks to the dissemination of information and services through electronic media.

The propagation of ICT has been a process as fast as has been unequal in different areas in the world, producing a well-known problem named

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digital divide. This term refers to the gap between people who have an effective access to digital and information technology, and other citizens that have a very limited access or no access at all. These different conditions affect, nowadays, the quality of life and business/cultural opportunities. In addition, different levels of digital divide could be defined. In fact, even when a connection is possible, gaps could occur in the broadband network access and this causes a difficult gathering of massive quantity of data.

Knowledge divide is a further important concept. It defines the gap in living conditions between people who can find, manage and process information or knowledge, and those who are impaired in this, for many different reasons. Even if the percentage of technological assets and services is increasing in Italian families, a significant gap is still present, due to generational, cultural and economic factors. Main reasons given by families for the lack of internet access are the lack of skills to use it and consider it useless and uninteresting.

Moreover, focusing on the usage of resources and not only on their availability, Censis (n.d.), the Italian Social Investment Research Center, has recently performed an interesting comparison, shown in Figure 1, between the use of television and internet in the Italian population. Generally, television is the most known media: in particular, citizens older than 65 are the group that both uses less internet connection and that watches more at television.

LepidaSpA (<http://www.lepida.it/>) is the operative instrument promoted by RER (Emilia Romagna Region) in order to plan, develop, man-

age telecommunication infrastructures and supply services of data transmission included in the network architecture, delivering innovative ideas for the public administration (Sanchez, Cerezo, Garcia, Alvarez, & Menendez, 2009).

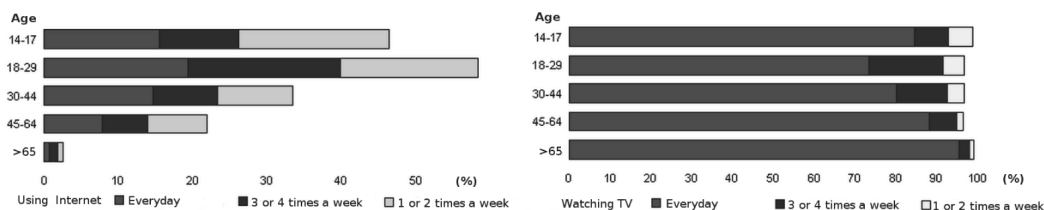
Among its several projects, LepidaTV (<http://www.lepida.tv>) has arisen in 2008 with the aim of:

- **Overcoming Digital Divide:** In Emilia Romagna areas without a broadband connectivity are actually a 20% of the territory. Citizens with at least one television represent the 99,7% of the population and the utilization of this media permits to deliver information, already existing on Internet, to a wider target;
- **Overcoming Knowledge Divide:** Even if there is a broadband connectivity there could be a lack of awareness of its potential and a lack of skill for its usage. Citizens are less mistrustful towards television, that is the most familiar technology and its usage is simpler.

In addition to the television, internet has been also maintained as an alternative communication media. This allows transmitting the same data using both different frequencies and completely separated infrastructures, not only reaching a great number of users but also reaching them with several reliabilities.

Moreover, this will ensure the resilience of the system. In fact, thanks to the exploitation of more independent and parallel mechanisms, vulnerabilities and points of failures related to

Figure 1. Use of Internet and Television in Italy



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