HiperJanela, an Upper Dimension for the Society of Information

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ABSTRACT

This article describes an idea for achieving a higher level of global visibility of certain events and for improving and stimulating citizens (in this first approach, European citizens) for a higher level of consciousness of the diversity of European reality. At present, each country or region of Europe is still living in a sort of psychological space circumscribed by the old sense of geographical border, and where information about other realities is mostly spread by means of conventional media, newspapers, magazines, TV, etc., as well as by the Internet and, in the latter case, by the information recorded by travellers. This is how the conceptions of Europe and of European citizenship are slowly developing. The proposal presented in this article, named "*HiperJanela*", aims to bring citizens to an upper level of on-time-real-information across the entire European space, by means of a global network of public video-interfaces which we call the *HiperJanelas* (notice that "*Janela*" is the Portuguese word for window).

1. Introduction

As a first notice, we would like to state that the idea presented in this article is to be considered anti-patent, that is, it is offered to the public by its author and anyone may implement it freely without the need for any special permission, other than a symbolic contribution in order to cover the author rights. Please contact the author at feliz@fe.up.pt, in such a case.

In these days of the *Information Society*, one of the main aspirations of the European Commission seems to be the creation not only of the institutional European space, but also of a certain European mind and citizenship (E.U., 2006). Although the European mind already exists, in its diversity, strong and well established, and based on a wisdom built along several centuries of a rich history, the visibility of such a mindset is not yet corresponding to the concept of "one-voice Europe". The weak knowledge about what is occurring in the various centres of Europe and the poor information reaching ordinary citizens are, in our point of view, obstacles to faster development. In one sense, ordinary citizens know very little about the places of other countries, how life runs in those places, how people work, what problems they face daily, and how they surmount them. Discussion and learning through comparison is therefore not stimulated. On the other hand, directives and incentives of European Union institutions hardly reach "normal" citizens, since they are usually broadcasted to the public by the media or by some country dependent institutions. Visibility of European directives, tendencies and proposals is also poor. Although such information can also be accessed via Internet, it is recognised that people often do not plan their lives based on getting constantly informed by those means, since they are fully focused in other aspects of their lives. At the same time, any polls or events that may be important for the population may well appear obstructed by regional information, since it is

usually delivered by the media. This way, both the information from European institutions to the public and from the public to the European institutions is, in the present approach, deficient, mainly because there is always a third party between the two interlocutors.

Therefore, aims like those of improving Commission ability to listen, improving communication in Europe, better perception of policies, institutions, task, etc., and especially facilitating the ability to communicate with any European region, will hardly be achieved by means only of the actual network of information, where a significant quantity of information is handled through a vertical structure. In the following sections, we will expose our vision of the actual situation and confront it with a simulated ambience based on a new communicational proposal, the *HiperJanela*, which may be considered the basis of a more flexible and popular horizontal network for the improvement of European citizenship.

2. The present situation

As previously said, the present situation of communications among citizens and institutions in European Union (E.U.) is very much based on peer-to-peer contacts, like email, telephone, etc., and, when the information is to be broadcasted, by introducing some natural third parties between the two interlocutors . These third parties are frequently regional institutions or even regional media operators. Anyhow, the practice shows that frequently a certain obscurity is maintained in the public concerning certain events of the Union, obviously because the media cannot be fully dedicated to broadcasting such information. On the other hand, citizens are also not commonly aware of the day-to-day life in other places, and therefore have no idea of how people normally live, no way of comparing and reflecting on their own lives, in order to improve them, and get a more realistic perspective of our common space. Figure 1 aims to represent the actual type of system, in terms of information sharing. In a certain sense, Europe at present still is a universe made up of several domains which are still very enclosed. We believe that this is an obvious obstruction to the intellectual perception of the whole and, therefore, also an obstruction to the evolution of a superior state of awareness.

In figure 1, these *domains* are schematically represented. Peer-to-peer communications are shown in the form of *dashed* links, and broadcasts in terms of *solid* lines. The E.U. institutions use these two types of approaches to interface with citizens. Third parties, as depicted in the figure, which in many cases operate with other objectives than solely to inform people, are usually responsible for broadcasting.

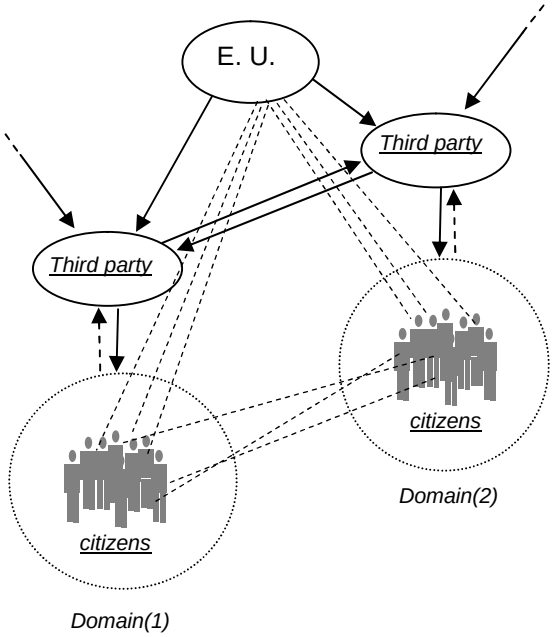

Fig. 1 Actual communication structure in the E.U.

A conclusion that can easily be drawn from this scheme is that citizens will be only informed (1) by what third parties deliver; (2) by informing themselves directly at the European Union Internet sites and institutions, or (3) by what the community of people will share by email, telephone, chat, etc. This is obviously a system which is not only far from being optimized but also susceptible to generating information noise. As we said, we claim that this is extremely obstructive to faster and cleaner development of European citizenship.

3. The *HiperJanelas* communication space

The prime aim of the *HiperJanela* concept is to make the communication of different realities in an extensive geographical space as reliable and horizontal as possible. In a sphere where visibility, flexibility, trust and reliability are key words for the development of a progressive society, this aim is appropriate. The *HiperJanela* space must therefore allow the following: (1) information from E.U. will

reach the citizens directly, and without being filtered or delayed by third parties; (2) citizens will be able to have an on-time real visual perception of life running in diverse locations of the Union, by simply looking through the windows; (3) citizens will be free to use such visual information for becoming more aware of events, proposals and possibilities, and even for personal contact with other members of the community.

In our view, this may be achieved by installing high resolution video-interfaces between the various domains belonging to the E.U. space. As suggested in the scheme of figure 2, each *HiperJanela* installed between domains *i* and *j* (HJ_{ij}) will ensure the exchange of an on-time video of the two realities to their citizens. Citizens *i* will literally have a view on the universe *j* and vice versa. In effect, people would then have the possibility of *looking into* the other side and observe, learn and communicate through the *HiperJanela*.

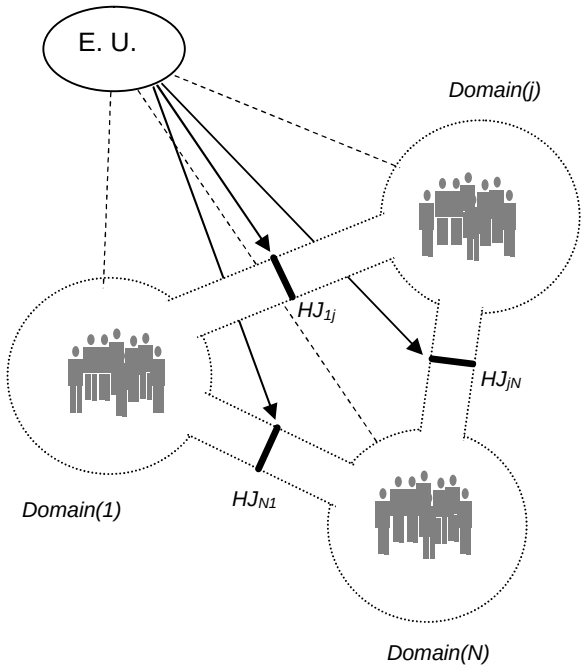

Fig. 2 Proposed structure using *HiperJanelas* (HJ)

At the same time, E.U. institutions will be now able to deliver specific information to a specific domain or even use these windows to directly broadcast information for all. The citizens' feedback can therefore be pumped up and simply completed by accessing the sites on the Internet proposed in the window, for more detailed information or actions. This scheme, which does not have to eliminate third parties from the process, but instead reduce their charge, establishes a direct feedback between citizens-citizens and citizens-E.U.

It is obviously not practical to maintain a link to each domain in all the domains at the same time, however, it is perfectly possible to commute these links after a certain period of time in order that all the domains can be scanned and become visible. The system is therefore a sort of rotating presentation of pairs of video-images, through which people will slowly get to know and develop a stronger sense of community. A *HiperJanela* in Nuremberg can, for instance, be connected during a week to Porto, and then be commuted to Madrid and stay there for the next week, for example. At the same time, other *HiperJanelas* installed in the European space would be operating in the same manner, giving people a better sense of how life runs in the overall communitarian space, while letting E.U. institutions achieve an excellent efficiency on broadcasting information.

4. **A simple** *HiperJanela* **system**

It is possible that this kind of space can be implemented in various ways, but here we propose a system which is very simple and reliable. It is based on a simple *video-panel*, perhaps made of several plan TV screens, to which a digital video-camera system is adapted. The images from the *Domain(i)* are captured by the camera C_i and then transmitted to the *Domain(j)*, and vice versa, at the same time, as represented in figure 3.

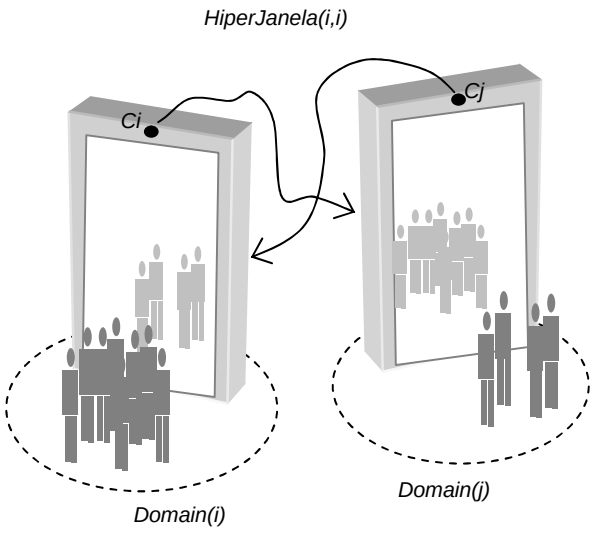

Fig. 3 The *HiperJanela* system

As we now see, at the very same moment that

people can be informed about E.U. by some text messages presented over the image, in the form of running banners, or in a corner of the panel, for example, people can also *look into* the other side and say greet other people, or even communicate other messages visually, almost instantaneously. Friends, for instance, may sometimes meet at the *HiperJanelas* and send fast messages, arranging meetings, exchanging numbers or sentences written in a paper, and so on. People will learn to use this resource as they require, while developing their own creativity. The sense of a common space will quickly emerge as an upper dimension of our *Information Society*. Politically, there will be also many advantages for the democracy, since the visibility of the diverse realities will be tremendous, and the information shared almost free of noise. This can be done either by fast Internet connections or by using satellite communications, for example. And people will simply feel the diverse reality in which they are living in. The following simulated images aim to give a better idea about what can be achieved by means of the implementation of such a concept.

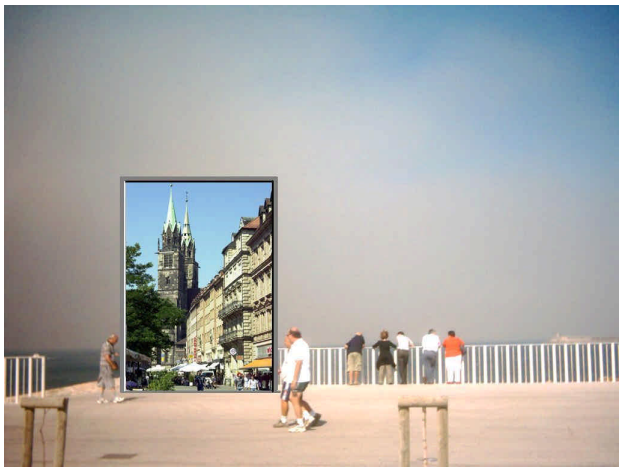

Fig. 4 *HiperJanela* between a street of Nuremberg, Germany, and a location near the sea in Porto, Portugal

Notice that the *HiperJanela* dimensions can also be diverse, and therefore these tools will be easily adaptable to the spaces where they are to be installed. A *HiperJanela* can be simply installed as a panel in a plaza or in a street, or inserted in the space of a real door or window of a building, in a café, for example. This, of course, already gives an idea of the powerful vehicle of information contained in the *HiperJanela*. Technologically, it is a concept that presents no challenges for the actual information technology, and, at the same time, the tendency will be to improve the quality of its images as time passes and technology develops even more.

Fig. 5 *HiperJanela* installed at a corner of a building of *Maximilianstrasse*, in München, Germany

Fig. 6 *HiperJanela* installed in a street of Porto connected to *Marienplatz*, München, Germany

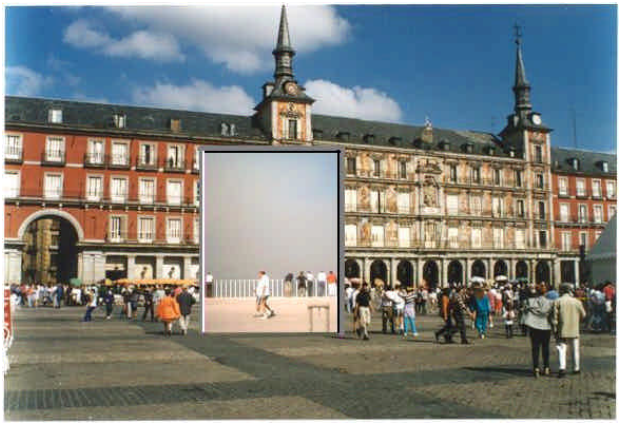

Fig. 7 *HiperJanela* installed at the *Plaza Mayor* of Madrid, Spain

The most interesting aspect of this proposal, however, is that it introduces such a high level of information on many levels of citizens' lives. In effect, one can imagine an esplanade of Lisbon linked to an esplanade of Vienna; a metro station of

Paris linked to a metro station of Napoli; a public café in Brussels linked to a public café in Roma or Barcelona, etc. The ability to join all these ambiences while broadcasting the messages (or some small images) from the E.U. institutions to all of them is the precious potential of this system.

5. *HiperJanelas* and Arts

As another interesting curiosity of this system, we would like to point out the effects that can be achieved by arts in these windows, which can even make each *HiperJanela* a sort of attractive touristic element.

Fig. 8 *HiperJanela* bordered by an Arabic door

Fig. 9 *HiperJanela* with a running banner moulded by a Portuguese door with *azulejos*

In figure 8, is simulated a *HiperJanela* of Andaluzia connected to a surface tram somewhere in another location in Europe. On the other hand, in figure 9, a *HiperJanela* enclosed in a Portuguese door with *azulejos*, with messages passing in a running banner, is linked to a view on the Plaza Mayor of Madrid.

6. *HiperJanela* operators and advertisement

Finally, it is also interesting to make some considerations concerning the utilization of these windows by private operators and, consequently, for the use of advertisement. Although in our point of view the primary objective would be completely perverted if *advertising* would invade such a precious space (we expect that it will not happen), private operators could be given a little space for advertising and, therefore, for maintaining the system, as long as such advertisement would not interfere with the principle of the *HiperJanela*. In such a small space reserved to them, private operators could be induced to advertise only something related to the region or the place where the *HiperJanela* was installed. For instance, if at a certain moment the *HiperJanela* is connected to a place in Italy, then the priority would be given to the advertisement of products from that region or country, therefore improving also the visibility of regional products and tourism. This serves not only to improve the visibility of how people live, but also the visibility of each people's culture.

7. Conclusions

We may conclude that the *HiperJanela* concept is expected to promote and help to implement not only a direct and a horizontal information structure between citizens, but also the ability of the European institutions to quickly and reliably listen and communicate with the population. The *HiperJanela* may therefore be considered a hyper-window linking different realities across Europe and, that way, contributing to the development of a superior state of conscience and of the European mind as a whole. The importance of these windows will be even more noticed in the peripheral regions, since these are usually the last ports reached by waves of information. So, the actual peer-to-peer contacts between people and the broadcast of E.U. information through the normal media operators will be complemented by the *HiperJanela* features, which include a horizontal type of information share for connecting different people and different cultures.

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J. Manuel Feliz-Teixeira graduated in Physics in the Faculty of Sciences of University of Porto, Portugal, and MSc and PhD from the Faculty of Engineering of the same university. His work has been related to various matters, from optical communications, solar energy and seismology to, more recently, the simulation of complex systems in management science, like warehouse and supply chain. His PhD thesis is on “Flexible Supply Chain Simulation”.