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PERMEABILITY AND IMPERMEABILITY OF SOCIO-ECONOMIC FRONTIERS WITHIN THE EUROPEAN UNION. CASE STUDY: THE ELECTRONIC FRONTIER. SUMMARY OF THE THESIS

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SUMMARY OF THE THESIS

Benefitting from the recent changes in realities within the international system, the research on borders has suffered a series of changes, which open up new perspectives of analysis. If in the past we referred to borders only from a national state point of view, recently we can discuss about new types of borders or frontiers, such as social, economic, ethnic, religious frontiers. These are most evident in Europe, where the European space best represents the fluidity of borders and frontiers that is determined by the transformation of national frontiers into axes beyond old borders and by free movement within the European Union. Thus, the European Union is the best space to perform research on a new type of frontier, namely the electronic frontier.

The perspective of analysis of a new type of frontier at an EU level must be sustained first and foremost by the determination of a research theme and the main concepts, which will be used. Whereas the title of the research refers to the quality of the frontier to be either permeable or impermeable in the European Union and places us in a socio-economic environment, it also sends us on the tracks to research a new type of frontier, entitled the electronic frontier. Basically, the theme of the research pursues the definition of the electronic frontier both at a theoretical level at applying this concept to the European Union.

The keyword analysed within our research is *frontier* or *border*, which, as we havestated above, presents new fluidities that provide it with new meanings and understandings. In the justification offered by Ioan Horga for new first issue of *Eurolimes* on the concept of frontiers, a series of leads on the new meaning of frontiers is offered one of which being the fact that "the European integration process will determine a redefinition of the role of frontiers"¹. Moreover, an important meaning of frontiers is strictly tied to *territory* or space². In the information age, we are prone to state that territory no longer matters due to the Internet and the way in which it has affected society and economy. Even so, the territory is constantly changing in tandem with the frontiers which have defined it and are defined because of it. As Gerard Delanty stated, "new typed of frontiers have begun to exist, older ones disappear, while some frontiers take on new functions" ³.

¹ Ioan Horga, "Why Eurolimes?" in Ioan Horga, Sorin Şipoş (ed.), *Europe and Its Borders: Theoretical and Historical Perspective*, Oradea, Oradea University Press, "Eurolimes", vol.1, 2007, p.4 ² *Ibidem*, p.5

³ Gerard Delanty, "Borders in a Changing Europe: Dynamics of Openness and Closure" in Ioan Horga, Sorin Şipoş, *op.cit.*, p.44

These are the conditions for the definition of the concept of frontier in the present research. The debate on the way in which frontiers act as agents of openness and closure leads us to the characterization made in the title of this research, whether frontiers can be permeable or impermeable. By virtue of the new meanings of frontiers, we must also analyze their characteristics and their degree of permeability leads us to the way in which frontiers can be agents of inclusiveness, while their degree of impermeability leads us to the characterization of frontiers as agents of exclusion.

The second concept that is essential to the present research is *the Internet*. A part of our day-to-day dwellings, the Internet is considered one of the biggest innovations of mankind. Even so, *the Internet* is the result of an innovative process that has stretched a few decades and that started with the invention of the microchip, the first computers and the need to digitize information. The Internet is the result of a collaborative process of American researchers and is, in fact, the global communication network that is based on a series of protocols and digital information and that is the starting point for information and communication technologies, such as electronic mail. The information distributed by the computers that are connected to the Internet has been catalogued with the help of an algorithm created by an European, Sir Tim Berners-Lee, who created the World Wide Web at the beginning of the 90s.

In other words, Internet users connect to the global network, but actually use the World Wide Web to search for information, to communicate and socialize. Given that the Internet has become a colloquial term for these activities determines us to use this concept in our research. Thus, information and communication technologies, which have the Internet at their core, are at the basis of the transformation of society and world economy and are determining factors for globalization. The sense given by the European Union to information and communication technologies with effect throughout society determines us to discuss their revolutionary potential. Their use in society and economy has truly important benefits, but it also creates losers in this equation. Those who lose are the ones whose socio-economic or territorial conditions do not allow them to converge to the virtual space.

The relations between these two spaces, but also the influence of the Internet on society leads us to two other important concepts for our research, namely *digital divide* and *digital inclusion*, which define connections or barriers even within the virtual space. Digital divide refers

to an adverse effect of the effect of the Internet on daily life, namely the differences in access, as well as the digital use and competences. As a result, we support the point of view according to which these information and communication technologies are not the panacea of the European society's problems, because we state that there are important splits in these three important pillars of Internet interaction. On the other hand, digital inclusion is the European Union's answer to these socio-economic and territorial differences. Here, we must interplay the overlap of virtual space on the current territory, because it helps us understand why we have such differences. More preisely, this research aims to emphasize the role of territory in the creation, maintenance and extension of the virtual space, both from a social and from an economic point of view.

The basis of our research converges from two directions, the first being the position according to which globalization has contributed to the transformation of space and frontiers, but it has not succeeded in their complete elimination. In the same time, an important determinant of globalization, namely information and communication technologis, has contributed to the transformation of society and economy and has applied the logic of networks to them. The exponent of this theory is Manuel Castells, a sociologist, who states the following: "as a historical trend, the dominant functions and processes from the information society are more and more organized around networks" ⁴. Moreover, according to this logic, space and time are also transformed to become "a space of flows" and "timeless time". Essentially, space is no longer material, but it is mostly virtual.

On the other hand, there is another point of view according to which frontiers have suffered a metamorphosis. This point of view starts from a point of view, which conflicts Castells' perspective. Indeed, the logic of networks in society and economy is more and more present, but author Peter Dicken states that transformations given by globalization must take into consideration the element of *territory*. Even if he recognizes the merits of information and communication technologies in the transformation of world economy, most of these activities are engaged in a certain space. The first impulse in any discussion on frontiers/borders is to affirm that they are no longer relevant, but reality contradicts us and determines us to take them into consideration other types of frontiers – social, economic, ethnic or religious ones.

⁴ Manuel Castells, *Rise of the Network Society. The Information Age: Economy, Society and Culture. Volume I,* Chichester, Wiley Blackwell, 2009, p.500

These are no longer only lines of separation, but become axes of connection given the emphasis put especially at the European leavel on crossborder cooperation. There are still barriers between communities, but not within states, given socio-economic or cultural differences. Thus, the frontier becomes both a barriers, which needs to be demolished and an axis of connection

The present research is focused on the socio-economic component of frontiers and on the way in which these frontiers have evolved at the Community level, based on the neoliberal logic of liberalisation and proposing a series of answers to the following question: what types of frontiers have information and communication technologies created in Europe? Which is the foundation of these new frontiers? How does the network society function in Europe and which type of frontier prevails? Moreover, we must emphasize the neofunctionalist perspective of the present research that helps us explain better the idea of the overlapping of virtual space and territory. Thus, for the European Union, the creation of a virtual space, which must be capitalized from a socio-economic point of view, can represent a new integration space that is subject to a process of functional *spillover*.

The last question asked above leads us to the conceptual delimitation of frontiers made by Liam O'Dowd, delimitation which is used to define the electronic frontier in this research. He states that frontiers have four dimensions, namely: barriers, bridges, resources and symbols of identity. Moreover, he states that these four dimensions are present in new frontiers, even if one or more are more poignant than others. The dimensions of frontiers that are emphasized by Liam O'Dowd demonstrate the need to build multidisciplinary and multidirectional research in order to reveal a new frontier, namely the electronic frontier.

On the basis of the theoretical delimitation of the present research, on the concepts that have been discussed and the questions that have been posed, we must postulate a series of hypotheses meant to guide our research. The first hypothesis refers to the metamorphosis of frontiers and postulates the existence of an electronic frontier. This concept will be defined, detaild and exemplified in the context of the development of information and communication technologies and the Internet. The electronic frontier is one of the answers to the statement according to which the Internet knows no boundaries, no limits, no frontiers, and the purpose of this research is to make an enquiry for this. There is a supposition according to which the Internet is a free space, of all possibilities, in which information travels without any restrictions and users can access it regardless of their location. This fact is only partially true, because there are still many transnational restrictions in the virtual space, but there are several means of Internet access for users, which create limitations between the real and virtual environments. The Internet and cyberspace succeed in determining such a metamorphosis of frontiers, by creating this electronic frontier, the subject of this thesis.

The second hypothesis comes from the divergent relation of points of view sustained by Castells and Dicken referring to the importance of space or territory in the new information society. We do not deny the existence of this space of flows, in which information travels following a network logic, but we assert that this space of flows is supported by a territorial basis. More specifically, we can discuss at an European level about the Single Market, as a foundation of the European union, and the Digital Single Market, a new European construction meant to create a free informational space similar to the Single Market. The Digital Single Market acts like a space of flows based on the Internet for the creation of a powerful digital economy at an European scale. In the meantime, it needs the basis of the Single Market for proper functioning and this thing is reflected also in the evolution of socio-economic frontiers at a European level. The Digital Single Market is the most recent manifestation of frontiers at a European scale, from a social, as well as an economic point of view.

The third hypothesis is aimed at the transformation of frontiers, from barriers to bridges or resources, like Liam O'Down states. The basic characteristic of this transformation is permeability, namely the degree in which frontiers, as barriers, can be overcome in order to transform into bridges and resources. Thus, the third hypothesis aims to research in what degree electronic frontiers are permeable at a European level.

The structure of the thesis follows the logic of the three main hypotheses. The first chapter, entitled *Theoretical considerations*, represents the theoretical foundation of the research and analyzes a series of keywords and the connections between them, especially the relation between globalization and frontiers, the existence of a network-society as stated by Manuel Castells and its influence on frontiers. Moreover, another important point of this chapter regards the theoretical approach on frontiers, marked by the delimitation made by Liam O'Dowd that allows us to define socio-economic frontiers and eases the understanding of the electronic frontier.

The second chapter, entitled *The Socio-economic evolution of the European Union from the perspective of frontiers*, starts from the idea that socio-economic frontiers have evolved at the European level due to the transformations brought on to the community space. With this chapter, we revisit the evolution of European frontiers from the perspective of the efforts to accomplish the common European space, in an attempt to preface the new frontier, the electronic one, as well as the common informational space in the EU, namely the Digital Single Market.

The third chapter prefaces the case study of this research and is aimed on the definition, conceptualization and contextualizing the electronic frontier. Its definition is realized in the context of the network society, a concept brought by Manuel Castells, as well as in the context of the importance of territory at the European level, according to Peter Dicken. Thus, we deduce that there is an electronic frontier between the virtual and real environments, as well as within the virtual environment, which is manifested according to the delimitations proposed by Liam O'Dowd. Thus, the definition of the electronic frontier reaches into all these characteristics, both for the limit between *real* and *virtual* and within the *virtual* space.

The fourth chapter, entitled *Comparative analysis of the Single Market and the Digital Single Market from a socio-economic perspective*, represents the first step in the process of applying the electronic frontier in a European concept. The main reason for this is the fact that this analysis maps the way in which the digital market is overlapped on the real one and the way in which freedom of movement has evolved in these two environments. Moreover, the analysis emphasizes mainly two characteristics of the electronic frontier, the fact that is creates a bridge between the real and virtual environments, as well as its quality of becoming a barrier in the digital space by obstructing the free movement of information.

Finally, the fifth chapter is dedicated to the mapping of the characteristics of the electronic frontier in the European Union and it is based on the foundation built by the evolution of socioeconomic frontiers, as well as the comparison between the Single Market and the Digital Single Market. Split into four sections, the case study begins by offering a retrospective look and an analysis of the way in which the Union has tackled the issue of ICT starting from the 80s. This section aims to identify how the priority of information and cyberspace has evolved. The next sections follow and details characteristics of the electronic frontier, namely a barrier entitled *digital divide*. Then, we look into its quality of becoming a bridge in the network with efforts of digital inclusion by the EU and the way in which it can help build virtual community with the help of network communication. The fourth section details the way in which this frontier can become an economic resource, from two points of view: electronic commerce and research and development in ICT.

This study is based on a solid methodology both from a qualitative point of view as well as from a quantitative point of view. The methodology was created in concordance with the multidisciplinary overview of the research, which contains aspects relating to European studies, economy or social sciences. The theoretical chapter is based on an overview of specialized literature connected to the globalization, frontiers and introduces useful concepts, such as the network-society.

Then, we used the diachronic methods of presenting the evolution of European Union frontiers from a socio-economic point of view, using primary sources, especially EU and EC documents, press articles or secondary sources.

Based on Liam O'Dowd's theoretical perspective on frontiers, the conceptualization of the electronic frontier is a support for the next two chapters, which are built according to a case study method. Firstly, the analysis on the Single Market and Digital Single Market is based on the *comparative method*, in order to ilustrate the way in which the digital market represents a new step of integration, but which is based on the Single Market. The comparative method allows us to search for similar barriers in the way of free movement of goods, services, people, capital, but also information. The comparative perspective, which also finds differences, is emphasized by document and discourse analysis, using official documents and press.

The last chapter represents a detailed and applied analysis on the electronic frontier in the European Union as a barrier, bridge and resource. This analysis has two levels, the qualitative that offers a diachronic retrospective on community policies on information society, digital economic and the Internet. The retrospective is based on document analysis using official EU documents.

The qualitative level supports the quantitative analysis, which aims to detail the electronic frontier, using relevant indicators, such as the percentage of people who have never used the Internet, the proportion of the ICT sector within the European economy, the degree of sophistication of the Internet usage, etc. In order to obtain a representative image and to obtain

meaningful results on the success or lack of succes of the EU regarding ICT, we illustrated the evolution of these indicators starting from the beginning of the Digital Agenda for Europe, namely 2010, as the basis of our analysis. The analysis of these indicators allowed us to formulate conclusions regarding the mapping of the electronic frontier in the EU both as tendency of construction, as well as deconstruction.

The access to indicators was eased by an initiative of the Digital Agenda for Europe, entitled *Digital Agenda Data*, which provides relevant statistics in a single web page on the information society and digital economy. This data was extremely important in mapping digital divide and digital inclusion within the EU, as well as the ICT sector in the European economy. The quantitative analysis was made both at member state level, as well as at the European level.

Beyond the holistic perspective of this research, there is a series of limitations that invites new scientific directions. Mainly, we include here the quality of the electronic frontier to be a symbol of identity, a quality which has not been detailed in the case study because of the mainly socio-economic character of the research. The symbol of identity refers mainly to Europe's cultural frontiers.

Moreover, we must underlines another type of limitation on our research, mainly when we discuss the quantitative analysis on the electronic frontier. The analysis was restricted to a time frame starting in 2010 until 2014, as well as by the selection of indicators from a multitude of possibilities. There were cases in which we did not have complete sets of data for the whole five years. The indicators were chosen on the basis of their importance in report to the objective of the Digital Agenda. For instance, we ilustrated the barrier posed by the electronic frontier using an indicator on people who have never used the Internet, but there are other indicators that could be relevant to this analysis. Even so, we used complementary indicators, either to support our argument or to contrast it, in order to better ilustrate the complex reality of the electronic frontier.

The analysis on the electronic frontier in the European Union is a result of the research performed within the Jean Monnet Multilateral Research Group entitled *Initiative and Constraint in the Mapping of Evolving European Borders*, which aimed at offering a comprehensive and multidisciplnary perspective on the challenges of the European frontiers and the electronic frontier is a perfect example for the necessity of a multidisciplinary approach on frontiers. This project

offered an important material for the research, namely primary sources on frontiers in the European Union⁵.

The development of the database on socio-economic frontiers of the European Union and on the policy on the Internet by the EU was completed by the privilege to consult the Historical Archives of the European Union in a study trip at Florence within the European University Institute in 2013. The access to these archives allowed us to create a solid historical basis both for the chapter marking the socio-economic evolution of the Union (with an emphasis on the evolution of the Internal Market), as well as for the comparative chapter. Among these, we can find press articles from the 1980s and 1990, especially Financial Times and the Economist, but we can also find press releases, speeches and interviews of the main people involved in the Internal Market policies of the European Community.

The benefits of the Internet were useful for this research, by giving the author the chance to consult essential official documents of the European Union for the mapping of the electronic frontier. We are mainly talking about the communications of the European Commission, european directive and white papers, from which we present the following an a non-exhaustive list: *Communication of the European Commission on a Digital Agenda for Europe, Europe 2020 strategy, the White Paper on the Completion of the Internal Market*, Mario Monti's report to Jose Manuel Barroso entitled *A New Strategy for the Single Market, Single Market Act I, Single Market Act II*, communications about the Internet, such as *eEurope 2005* or *i2010*. The support of the quantitative research was given by the *Digital Agenda Data*, which offered official and open data on Europe's information society and digital economy.

The secondary sources are the theoretical frame on frontiers which allowed the conceptual extension of frontier towards the virtual space. In this sense, Manuel Castells' research from the series entitled *Information Age* have been extremely beneficial, as they opened the theoretical foundation of the research. Moreover, the theoretical foundation was completed by Peter Dicken in his research entitled *Global Shift. Mapping the Changing Contours of the World Economy*, as well as the journal entitled *Eurolimes*, which focuses on border studies. The conceptual perspective of the electronic frontier has been provided by Liam O'Dowd in the research entitled *The Changing*

⁵ Baza de date consultată se regăsește pe site-ul oficial al Institutului de Studii Euroregionale Oradea-Debrecen: http://iser.rdsor.ro/, accesat la data de 10 februarie 2014

Significance of European Borders, which is part of a larger volume edited by James Anderson, Liam O'Dowd, Thomas Wilson, New Borders for a Changing Europe – Cross Border Cooperation and Governance.

The motivation for choosing this research theme stems from the need to offer an innovative perspective on border and frontier studies, especially given the fact that information and communication technologies have become indispensable parts of society and economy. There is a gap in the specialized literature that needs to be filled with an overall perspective of the relation between frontiers and information and communication technologies, especially the Internet. The overview of the literature has revealed that the influence of the Internet is generally viewed from two perspectives, the voluntarist and revolutionary image of the Internet and the need to secure the cyberspace connected to the censorship in cyberspace. On the other hand, the literature already offers a perspective on the influence of the Internet in society which could lead to the exploration of the electronic frontier, namely *digital divide*.

This refers to the societal gaps in different levels of access to the Internet, the usage and digital competences of user. Even so, digital divide does not have the overall frame that the analysis of the electronic frontier can offer. The electronic frontier is the result of a socio-economic analysis on therelation between the Internet and new frontiers in society and economy. this research will attempt to answer a question remained unanswered in digital divide research, namely what happens when the Internet collides with new social and economic frontiers?

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