

Brain Drain and Online Geo-Social Network

Sofianopoulou Ch.¹, Rouziou Ch.²

¹ Department of Informatics and Telematics, Harokopio University, 9 Omirou str., 17778, Athens, Greece, csofian@hua.gr

² Department of Informatics and Telematics, Harokopio University, 9 Omirou str., 17778, Athens, Greece, xrouziou@gmail.com

Abstract

The brain drain phenomenon refers to the migration of highly trained staff, often from less developed to more developed countries. It involves scientists who were trained in countries of origin and move to staff positions elsewhere, with higher salaries, offered by richer and more prestigious companies or universities. In recent years, however, immigration that is often propelled by economic and professional reasons takes a somewhat different form than in the past. Many of the highly qualified immigrants maintain relationships with their original country, culture, and family, and adopt a lifestyle that incorporates both culture and lifestyle of the country of origin and of the host country. This phenomenon is referred to as transnationalism. One of its by-products is the bringing together of communities in different countries, where the immigrants serve as a bridge across geographical and cultural boundaries.

At the same time, Online Social Networks became one of the key means of communication through the World Wide Web. These virtual networks are able to collect statistics and use information about users. The wide availability of digital maps in conjunction with the large interest of users for knowledge of spatial information on their activities led to the creation of Geo-Social Networks where users share personal information and geographical position.

A very interesting perspective is presented by the creation of an online social network, in which new immigrants exchange information, while sharing geographical location and thereby facilitating interaction at any given time. The result of this exchange is the collection of spatial information, allowing users to easily find their contacts in geographical proximity. This creates a link between immigrants, using geographical information in case users provide it.

The purpose of this paper is to analyze this relationship and to examine how the users exchange information. Specifically, it aims to study how online social networks contribute to collaboration and interaction among users, and whether it affects the ties between immigrants. Finally, the construction of a Geo-Social Network of new immigrants (brain drain) is proposed.

Keywords: brain drain, migration, online social networks, geo-social network

1 Introduction

The man, when his birthplace was not offering a bearable life and within the existing social context, was striving to find a better luck. It is obvious that not all of the people has moved, because the percentage of immigrants in the world, it is relatively small in proportion to the population that remains in the countries of origin. However immigration is until today a reality.

The migration occurs when the social and economic environment within the person lives and moves does not give him the opportunity to fulfill his aspirations and his ambitions.

Today, we talk about a new kind of migration and it is to a large extent different by the movement of the past regarding the constitution of the population. The brain drain is essentially the movement of scientists from less to more developed countries. The brain drain

from a country can be calculated, if we measure the number of people with higher education, who were born and educated in this, while they are living and working in another country, as the percentage of all people with tertiary education in their country of origin (Labrianidis, 2011). In the past, often the uneducated population because of the poor living conditions was moving toward western countries, nowadays more and more graduates are seeking a better quality of life without necessarily facing a problem of survival, yet the fulfillment of professional ambition.

Undoubtedly the 'brain drain staff' is different from the immigration of unskilled workers, but in both cases it is actually the immigration which is usually the result of the inability to work in any country of origin. The differences between the two immigrant groups are mainly the position occupied in society, the spiritual work and the distinction of an executive of a firm compared with the simple worker, as different ontological categories. However, similar phenomena are classified by different social groups differently.

At the same time, the twenty-first century could be easily described as a century of technology and new data, increasing use of computer, internet and hence social networks. A social network is a social structure consisting of a set of factors, such as people or organisations. On the internet, social networks are a platform allowing the creation of social relations between people, usually as active members of the social network, with common interests or activities (Kaplan & Haenlein, 2010).

By the end of 2013, Facebook boasted 1.23 billion monthly active users worldwide, adding 170 million in just one year. According to Facebook, 757 million users log on to Facebook daily, as of 31 December 2013. New [HYPERLINK "http://www.pewresearch.org/fact-tank/2014/02/03/6-new-facts-about-facebook/"](http://www.pewresearch.org/fact-tank/2014/02/03/6-new-facts-about-facebook/) Pew Research Centre survey findings show that the average number of friends among adult Facebook users is 338 and the median comes in at 200 friends. Users of these networks are not only teens but also users aged 35-44 years. Therefore, it is reasonable to say that Social Media are a revolutionary new trend that should be of interest to companies operating in online - or any place for that matter (Kaplan & Haenlein, 2010).

Meanwhile, the growing use of smartphone bore the Geo-Social Networks. Geosocial networks, such as FourSquare, Facebook Places, Google Latitude3, Mobli4 and Waze5, already have millions of active users. These networks provide the ability to users to associate content with geographic locations. Usually, these geosocial networks use locations reported by users in order to provide various location-based services, such as geo-tagging and friend tracking.

This paper tempts to analyze the relationship of Online Social Networks in migration and proposes a Social Network in which users will connect to publish and exchange information. The first part examines the basic concepts of migration and social network literature, emphasizing the Geo-Social Network, which becomes more popular and the geo-location as a component of the existing social media operation. The second part examines the use of Social Media in migration and whether users connect or use them to exchange information amongst them. Finally, the third and last part proposes the creation of a Social Network, addressed to immigrants, in which they will connect, determining their position geographically and communicating, thus creating a kind of geographical network.

2 Online Social Networks and Migration

Some years ago the international migration meant a radical departure from the country of origin (Faist, 2000). The immigrants were characterized as "rootless", because of the cut of their social relations with the Party. Over the years because of the evolution of media, the situation has changed. The immigrants began to maintain the contact with family and friends at home, sending letters and packages via mail (Thomas and Znaniecki, 1918-1920). It is characteristic, that scholars recently have described how the explosion in cheap international phone calls served as a social glue that connects immigrants and non-immigrants worldwide (Vertovec, 2004; Horst, 2006).

Today, the speed at which information flows and the communications have increased and shape everyday human life to an increasingly greater extent (Castells 1996; Wellman 2001). The Internet and the Social Media beyond information, as exchange instruments have mutated channels of communication between users. The latter is particularly important for immigrants who live scattered in the world, because they communicate with each other via the Internet. In this way, it is achieved the “*death of the distance*” (Cairncross, 1997) and therefore has been reduced the cost and the risk of migration.

Drawing on the network theory, the migration is strongly influenced by human networks that create and facilitate moving (Polyzos, 2006). When there is a network between people of the same origin, it is observed an increase in migratory flows while the benefits for the host country are increased too. It is understood that these networks, because are consisted by units linked together by bonds of friendship or kinship, reduce the risks of movement (Massey, 1990 at Polyzos, 2006). From the above it is understood that immigrants, having access to more and more information on labor market conditions and the risks they face when entering the foreign country, substantially reduce the costs of moving them. In this way a process is created to promote international travel (Pries, 1999 at Polyzos, 2006).

The basis of each migration process is a cross-flow of information. That is, because the candidate immigrant doesn't seek information just before moving to the host country, but also for the organization of the trip. The social capital according to Bourdieu, is “the sum of actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition» (Bourdieu, 1985). In the literature, these networks consist a set of “strong ties» (Granovetter, 1973), based on kinship, friendship, or common origin communities in the host country (Massey et al. 1998). Today, with the Internet and Social Media, for people planning to move, it is easier to gain information from the networks and thereby facilitate their movement.

The Social networking sites are organized internet websites, providing a series of basic and free services, such as creating profiles, uploading pictures and videos, commenting on the actions of other members of a network or a group, instant messaging and much more. The Social Media concept is far from groundbreaking. Nevertheless, it seems to be a confusion among managers and academic researchers, of what exactly should be included under this term, and how Social Media differ from the seemingly interchangeable concepts of Web 2.0 and User Generated Content. The era of Social Media probability started about 20 years ago, when Bruce and Susan Abelson founded the “Open Diary,” a site that brought together writers and organized a community.

Social Media are a class of agents with whom people are talking, participating, sharing, networking and identifying websites, while they are online. Moreover, users can enrich online conversations with their feedback, upload gallops, as well as comment and spread news, among countries otherwise distanced by thousands of miles (Jones, 2009). Within this framework it has been observed that often there is more emphasis on interaction rather than content (Zhang, 2010). An interesting point in the literature, displays that in social networks, a person often seeks to collaborate and communicate with another person, but this direct linkage between two, cannot be considered as social networking (Zhang, 2010). This term, refers to the creation of an online community, composed by people with common interests, friends and colleagues, or even a nearby location. The most popular communities today are Facebook, Myspace, LinkedIn, Twitter etc.

2.1 Migration and Transnationalism

The understanding and the clarification of the term of immigrant, is a key prerequisite for understanding further the issue of migration. According to the Department of Social Affairs of the United Nations (1949), migration is called the phenomenon which has the following characteristics: some people move in order to seek permanent or temporary work (aka: immigrants) having at the same time other family members who are directly dependent on them.

The definition of immigrant varies from country to country. According to Pouloupoulou (1986) a person may be considered as an immigrant in the host country if he has a work permit, residence permit or has expressed a desire to remain in it for quite a while. At this point it should be mentioned that there is separation between political refugees and economic migrants. In many areas, people are leaving because of the current political or social situation, as for example, escaping from conflicts. The Riedmatten (1997) states that this situation led states to distinguish people who leave the country for economic reasons than those threatened by existing conflicts (Tzortzopoulou, 2002, p.25).

Another feature of a migratory stream, is related to the time spent in the host country, beyond the intention of the person upon entering the country. The migrant is defined as a temporary or permanent host, no matter the country of origin. Yet, the ranking of migrants is difficult, due to the possible change of intentions during the movement (Tzortzopoulou, 2002). According to Castles and Kosack (1973), the distinction of immigration to a temporary or permanent, it is not indicated as an important one. The reason is, that if the immigrant changes his decision and leaves the host country, other immigrants will come later. Even Tzortzopoulou (2002) states that *"In many cases the residency status of the individual and thereby and his intentions, can be changed. Notable examples are the people who enter the host country as students and are being transformed into economic migrants"*.

The main cause of migration is considered to be so far the search recruitment. According to Pelagidis (2001) *"The factor labor is certainly by nature the less flexible, in terms of mobility. It is understood that the funds are being invested productively and are being easily placed in investment portfolio internationally. In contrast, the migration of the workforce is a more complicated affair. And that is, because the legal or the institutional barriers or even the cultural differences are still significant obstacles. Although the work product is "consumable", it is practically impossible for the worker to move often where the economic conditions dictate*. In the same text, it is argued that the international economy is significantly integrated (*integrated*). Thereby, it is affecting the migration. The trade and the production of multinationals has favored the expansion of the facilities of large companies in the industrial centers outside cities. The globalization promotes the free market and creates new opportunities, while at the same time increases the difference between developed and less developed countries. Leontidou (2005, page 358) says that: *"Globalization and European integration may weaken some borders but will raise others"* (Papageorgiou, 2009).

At this point, it is worth noting that globalization has brought increased immigration flows and consequently has an effect on the convergence of wages internationally (Pelagidis, 2001). According to available data, the immigrants of past years, were unskilled, resulting an increase of the supply of unskilled labor and leading to the reduce of native worker's salary. In the same text: *"On the contrary, in the country of origin, a decline of the supply of unskilled labor is observed, leading to higher wages for workers there, but leading also to the fall of the income of those employed in other productive factors. Instead, today any migratory flows concern mainly junior employees"*.

However, the globalization has brought a new kind of immigration, consisted mainly by affluent populations of Western countries. These individuals have different characteristics. They work permanently, they have senior positions and management positions and they are employed by multinational companies or by bodies of the European Union and other international organizations. They have moved by choice and they could be described as cosmopolitan, if they travel a lot and do not stay long in one place (Papageorgiou, 2009). At the same time, the migration of scientific personnel is enhanced, choosing to have a career in another country. The above phenomenon is amplified via the Internet, where the highly educated communicate and sell their knowledge, exchange ideas and seek better working conditions.

The Brain drain describes the migration of highly trained staff, from developed to less developed countries. It involves scientists who were trained in countries of origin and moved to staff positions with higher salaries. According to the OECD (Dockier and Marfouk, 2005) the number of immigrants who have high education in less developed countries, has been doubled the 90s. Somehow the above has been resulted, due to the change in the migration

policy of some countries, encouraging the entry of scientific personnel and gaining access to their labor markets. Also, it is understood that attracting academic and scientific personnel through migration is a way to upgrade the national innovation systems. It is not therefore surprising that developed countries were those which attracted the largest number of academics and scientists (Williams and Balaz, 2008).

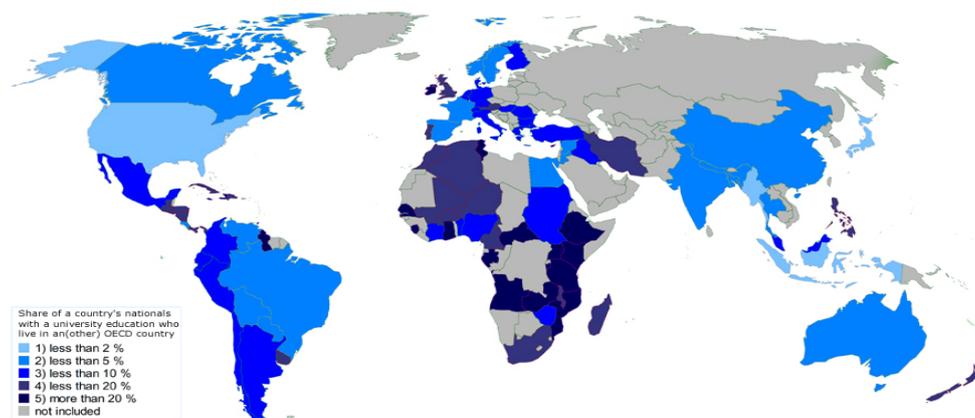


Figure 1. The phenomenon of brain drain worldwide. Source: OECD

Such an example, is the U.S. country, where a large proportion of academics who work there, come from other countries. Multiple surveys, show that in 2007-2008, they worked in the U.S. over 100,000 academics from other countries, particularly the least developed. The rationalization of these data suggest that the U.S. has an international appeal, especially the universities and its offered opportunities there for academic research. It should be noted that scholars from other countries who are mainly employed in the U.S., are from China (22.4%) and India (9.4%) (Labrianidis, 2011). Regarding the other countries of the OECD data, in 2000 there were 20 million workers with higher education, residing in OECD countries but were born in other countries. Indeed, in 10 years there has been an increase of 63.7% compared with an increase of 14.4% in the immigration of unskilled workers (Docquier and Marfouk, 2006). The above increase can be explained by the change in immigration policy in some countries, such as Australia and Canada, which are more geared to highly skilled migrants.

The above data show that modern immigrants who have high education moved from less developed to developed countries. According to the above considerations, the least developed countries are the ones who suffer the most negative effects of the leak. Specifically, the percentage of the leakage of graduates from the less developed countries to OECD countries, reaches the rates of all their graduates (Carrington and Detragiache, 1998, 1999). The rates for some of these countries are: Jamaica 77%, Ghana 26%, Iran 25%, Korea 15%, Philippines 10%, South Africa 8%, Egypt 7.5% and 7% Pakistan. Even in small countries like the Caribbean, the Central America and Africa, the movement of scientific personnel exceeds 30%. It is a typical example, that of Jamaica, which trains doctors and most of them have left. Unlike the migration of previous years, where immigrants tended to assimilate into the host society, the new immigration people maintain their social relationships and adopt a lifestyle that incorporates both the culture of the country of origin and the host country. In this way the two communities come together across geographical boundaries. This phenomenon is called transnationalism. Nitsiakos (2006) in his article "*Migration and transnationalism*" writes that the term transnationalism was presented for the first time in the collective volume entitled «*Towards a transnational perspective on migration: Race, class, ethnicity and nationalism reconsidered*», the GI . Schiller, L. Basch and S.C.Blanc (1992). In the same text refers : "*the process through which immigrants form these networks between the two countries called Transnationalism and the migrants themselves who do this are called cross-national migrants (transmigrant)*». The individuals, forming this new type of immigration, they acquire a life

which is essentially shared between the two countries; they speak both languages and feel to have two homes. Indeed, as the nearest the distance is between the two sides, the more intensive the phenomenon is.

On the other side, Vassilikou (2007) argues that transnationalism brought the transnational family. As a transnational family, we define the members of a family which may live separately for long, nevertheless they retain their ties. The most important feature of this family is the constant effort made by its members, because of the geographical distance between them. The members of inter-national family frequently visit one another, use other means of communication such as the internet and the phone. Again, multiple surveys have shown that scientific personnel prefers the internet as a communication medium and especially the use of Social Networks. Often, the research on transnational migration, points out the movers of the country of origin and the host country, who actually live an transnational life. A question arises; whether this new immigrant remains in the host country and whether ultimately adapts to the social context.

2.2 Online Social Networks and Geo-Social Networks

The Web 2.0 has brought and has created space for facilitating communication between geographically dispersed users. Dekker and Engbersen (2012) report that Social Media is defined as web applications whose content is determined by its users. So Social Media refers not only to social networking sites, like MySpace and Facebook, but also to forums, blogs, YouTube, Twitter, etc. Indeed, many online applications have been transformed into Social Media.

The Social media are characterised by user's connectivity, interaction, and content generating. Online Social Media categories more concisely (Zhang, 2010):

Blogging / Micro-blogging: Nowadays especially popular are Blogger, Twitter, WordPress, where users can read issues with varied content.

Social Networking: Facebook, Myspace, LinkedIn, Ning, allow users to search for and connect with other users with similar interests and characteristics.

Social Bookmarking: Delicious, Digg, Faves, StumbleUpon allow users not only to point out every time their preferred pages, but sharing them also with other users.

Collaborative Authoring: the most famous are Wikipedia, Google docs, Zoho office suite.

Multimedia Sharing: Flickr, YouTube, Qik, Snapfish, Jumpcut, Vimeo, allow users to share audio, image and video.

Web Conferences: WebEx, GoToMeeting and DimDim allow users to conduct on-line meetings and conferences.

On the other hand, we can categories social networks under five eras (Owyang, 2009):

Era of Social Relationships: People connect to others and share

Era of Social Functionality: Social networks become like operating system

Era of Social Colonisation: Every experience can now be social

Era of Social Context: Personalised and accurate content

Era of Social Commerce: Communities define future products and services

Finally, Social Media can be categorized by social presence and self-presentation (Kaplan & Haenlein, 2010).

		Social presence/ Media richness		
		Low	Medium	High
Self-presentation/ Self-disclosure	High	Blogs	Social networking sites (e.g., Facebook)	Virtual social worlds (e.g., Second Life)
	Low	Collaborative projects (e.g., Wikipedia)	Content communities (e.g., YouTube)	Virtual game worlds (e.g., World of Warcraft)

Figure 2. Classification of Social Media by social presence/ media richness and self-presentation/ self-disclosure. Source: Kaplan Andreas M., Haenlein M. (2010) Users of the world, unite! The challenges and opportunities of Social Media, Business Horizons, 53.

Almost a third of the access to social networks, takes place from mobile phones. It is characteristic, that the Facebook application visitors doubled in one year to more than 100 million users, making it the number one social network in the world. At the same time new social networks, such as the "Foursquare" and "Plyce" have been created. The novelty of these social networks is the incorporate geo-location feature, which helps users to find their friends and learn more about their favourite spots, making their geographic space positioning explicitly easy, through mobile smartphone application gps. Social networks, such as the Geo-Social Network (GeoSN) work with location-based services. Specifically, such a network is a graph, where nodes represent users and edges represent friendship relationships. Also via GPS enabled mobile, users publish their current location to their friends, through the "check-in" at various spots. The most popular Geo-Social Network, the Foursquare counts more than 30 million users, and receives million check-ins per day. At the same time the traffic of most traditional Social networks, such as Facebook and Twitter, has been increased through the operation of check-in. In any cases, the user of this Social Media, can be connected by different regions and can visit interesting spots/points, sharing at the same time this information, tagging his current position. Moreover, he has the ability to comment and evaluate his position, making it salient to all contacts.

The platforms of Geo-Social Networks can really contribute, to the extent that users can (Grammatikogiannis, 2011):

- inform other users of Geo-Social platform, about the knowledge they have on certain event progress dimensions
- connect and create groups of active citizens who care about the event taking place. These groups can be at a local or international level.
- provide available information and make better decisions.

By using geolocation, allows better to understand the role it plays within the social networks, such as making friends, user preferences and the exchange of information. In literature, existing surveys have studied how geographic distance affects ties among users. Various applications have resulted, such as searching friends and advertising benefits from the geographic information which is associated with users (Sellato et al, 2010). Precisely when users are looking for friends or interests in the social network in a specific geographic region, the same social network through their geolocation, directs them to nearby users (geographically), creating thereby a social bond with common geographical reference. Also, the user displays all ads close to him, such as offers in shops, local news, and even jobs that relate to a specific geographic area.

Finally, it is very important to know how users connect over the space, how this information can be exchanged in the social network and how can be distributed worldwide. Specifically, the last growing interest in cloud services and content distribution networks, has led to the need to know the way in which users connect with each other. It is well established that the use of geographic information of the social processes, improve the design of such systems. For example, how it is famous a content in a social network may depend on the geographic

characteristics which can influence the new strategies for caching, wherein the servers that distribute the information may be pre-loaded with the specific content (Sellato et al, 2010).

According to the investigations, about 18% of Smartphone owners use Geo-Social services, up from 12% in May 2011. According to the same research (Zickuhr, 2012):

83% of American adults, over 18, own a cell phone.

58% of Smartphone owners use a geosocial or location-based service.

Most geosocial users are between the ages of 18 and 29.

Facebook is the most-used geosocial network with 800 million users.

Loopt is at 10th place in terms of most-used geosocial network with only 5 million users.

It is therefore obvious, from the above that Geo-Social Networks, now hold a strong position among users, especially among those who use their mobile phone to connect to them. A big advantage results, that is the users making check-in and finding friends who are spatially create a geographical network. From this network, a possible analysis of statistics can be used in further investigations.

2.3 Online Social Networks and New Immigrants (Brain Drain)

Today we talk about a new kind of migration, that of brain drain. Brain drain can be divided into three categories (Labrianidis, 2011):

- “*basic brain drain*”, where scientists have moved and do not come back to the country of origin
- “*reverse brain drain*”, where migrants return to their country of origin
- “*brain circulation*”, where scientists migrants move regularly between home and host

A very important factor is referred to the educational level of the sending countries of migrants. It is supported that migration flows tend to be greater, the higher the educational level of a country is. The Over-training is diagnostic of the leakage, regardless the growth. The policies of OECD countries, regarding the migration, favor the individuals who have received high education. This phenomenon explains the large percentage of this group to all immigrants, but does not justify the decisions of that a large proportion of scientific potential to move from least developed countries (Carrington and Detragiache, 1999). Furthermore, the differences in wages may be a cause of the phenomenon, but the question remains. The different level of life in the host country, the sense of security in relation to employment, but also the desire of immigrants for contact with an environment of people with the same or higher education also play a significant role.

The modern immigrants, who are young scientists, have very large capacity to handle the Internet and Social Media. This has led to the social media use, as a tool for organizing the movement, but also for maintaining social relations with the country of origin. Still, there is the dark side of the Social Media, providing false information to their users, like the case of non-existent provided jobs that or jobs that are actually very different from what was described. Dekker and Engbersen (2012) indicate that there is a disparity between immigrant candidates, in terms of their access to Social Media and the quality of use. In the same paper, it is noted that the Social Media have positive functions for new migrants and their networks. They can strengthen the connection of the capital of immigrants, their geographical location and provide much information. The latter can enhance the ability of the migrant to cope with the difficulties of moving. Also, the Social Media can be a useful tool to those who have been misled by erroneous online information and face another situation than that expected in the host country. It seems that new immigrants are less dependent on the traditional networks of migrants (communities) and organize their trip more autonomously utilizing information obtained through Social Media.

Komito (2011) states that Social Media caused the creation of new phrases in the literature of migration such as “annihilation of space” and “death of distance” (Cairncross, 1997). The big advantage of Social Media in this case, is that it is possible through online interactions to facilitate virtual communities that have similar features than the traditional face-to-face communities. The new immigrants have a great opportunity to create new communities

through Social Media. Of course, people differ in how they use the new technologies. On the one hand, there are people who prefer face to face communication and on the other hand those who communicate only via Social Media. Nevertheless, it seems that new immigrants choose as the unique way of communication, the Internet and the Social Media. The new technologies also brought their transnationalism identity, meaning people who consider themselves members of a national team despite the fact that they live in different geographical locations. The Transnationalism is a new factor of assimilation into the host society, if a new immigrant using Social Media, expresses his connection with the society of origin.

Also, Dekker and Engbersen (2012) point out that Social Media have created an environment consisted by strong and weak ties, which serves as a source of strategic information. This environment transformed the nature of mobile networks and on the other hand made the movement. The immigrants most seek and find information on Social Media, that previously was not available from the traditional networks. Such information concerns mainly the labor market, legal issues and other practical issues relating to immigration and life in the host country.

The same researchers, in their survey noted that Social Media play a very important role in maintaining links and contacts between immigrants and between them and their families. This is achieved, if the Social Media allow a virtual co-presence and create a sense of intimacy and immediacy with the person who lives far away geographically. Then, it seems that Social Media provide the opportunity to strengthen their connection with weak ties, thus bridging social capital. This is absolutely intertwined with Social Media, unlike with traditional media one-to-one. The new immigrants derive information and publish the information in Social Media, spreading the word to other prospective immigrants much more quickly than in the past with traditional networks. At the same time, Social Media created new ties which are characteristic example of recent immigrants from Ukraine and Brazil, who came into contact with strangers immigrants already settled in the Netherlands. In conclusion, it could be said that the new immigrants are now using the internet as their main source of information, but also as a mean of communication to maintain ties with their country of origin.

3 Proposal For An Online Geo- Social Network for Immigrants

In this paper, a Social Network has been proposed, which is addressed only to immigrants and particularly to brain drain immigrants. The user will be able to create a complete profile, with photos and personal details as well as his interests, jobs etc. The Immigrants from around the world, will be able to find other immigrants from the same country or from different and to exchange useful information on working conditions and living conditions in the host country. In this way, new links between migrants will be activated, since users will be able to look for other immigrants who have already installed in the desired destination and gain information. At the same time, users will be able to comment on some information for a job and conditions, limiting thereby molested information or facing a different situation from that expected.

This Social Network will be available by the application of geo-tagging, so users can make their location visible. In this way, people which are close and possess common features in their profiles, communicate, creating also a kind of geographical network if the spatial information about the emigration is provided. Users by applying geo-tagging will give their position every time they migrate to a country. Through the application of feedback, it becomes possible to investigate the cause of the movement. In addition, the user with the publication of his geographical position has the ability to find other immigrants of the same nationality, living and working in the same geographical place.

The practical use of such an application can be seen in the following example. Assuming that a Greek graduate of Medicine migrates to Germany for achieving his specialty, making login to the proposed Social Media and publicizing his geographical position, immediately the contacts with similar geographic location will be proposed. Also notifying, his work, his studies, his interests and his country of origin, through the search list of contacts has the ability to find users with similar characteristics. In this way the new Greek Physician creates

links with other immigrants with similar features of the same or different ethnicity. At the same time, he shares and publishes information about his life in the new country, about the working conditions, providing the opportunity to another candidate physician to limit the risks of moving, when this candidate has access to the necessary and desired information.

In general, users of such a network will be able to:

- create websites with common interests (work, host country, country of origin, study)
- exchange information on living in a country
- exchange information on working conditions in a country
- seek advice on legal matters concerning residence permits and work permits in one country
- organize meetings with other immigrants with common geography, common or different country of origin
- publish jobs in the host country for prospective immigrants

4 Conclusions

The internet makes it possible to offer to users all the necessary information on any topic. Also, the Social Media allow to users to organize communities and strengthen their relationships, especially for immigrants who are geographically dispersed and have difficulty communicating from distance. In this way the separation from friends and family becomes easier and thus the migration in general. Also, the social media offer new ways to strengthen ties and create new links. The new immigrants use them, to exchange information on the labor market, legal issues and other practical issues relating to immigration and life in the host country.

On the other hand, the social media are not just tools for communication between migrants and immigrants to their countries of origin, they are also the main source of information, thus facilitating migration. The relationships in networks are somehow amplified reducing the costs and risks of movement.

References

- Cairncross, F., 1997. *The Death of Distance: How the Communications Revolution is Changing our Lives*, Boston: Harvard Business School Press.
- Castells, M., 1996. *The Information Age: Economy, Society and Culture. Volume I: The Rise of the Network Society*, Oxford: Blackwell Publishing.
- Dekker, R. Engbersen, G., 2012. *How social media transform migrant networks and facilitate migration*, International Migration Institute, Oxford Department of International Development
- Docquier, F. Lohest, O. Marfouk, A., 2005. *Union Européenne et migrations internationales : l'UE15 contribue-t-elle a l'exode des travailleurs qualifiés ?*, *Revue Economique* 56(6), pp. 1301-1330
- Docquier, F. Lohest, O. Marfouk, A., 2006. *Brain Drain in developing countries*, Manuscript, Université Catholique de Louvain
- Faist, T., 2000. *The Volume and Dynamics of International Migration and Transnational Social Spaces*, Oxford: Oxford University Press.
- Grammatikogiannis, E., 2011. *Decision Support Systems for Participatory Planning in Regional Planning*, PhD Thesis, Department of Geography and Regional Planning, School of Rural and Surveying Engineering, National Technical University of Athens, pp. 188-192
- Horst, H. A., 2006. *The blessings and burdens of communication: cell phones in Jamaican transnational social fields*, *Global Networks*6, pp. 143–59.
- Jones, R., 2009. *Social Media Marketing* 101, Part 1.

- Kaplan Andreas M., Haenlein M., 2010. Users of the world, unite ! The challenges and opportunities of Social Media, *Business Horizons*, pp. 1-10
- Komito, L., 2011. Social media and migration: virtual community 2.0. *Journal of the American Society for Information Science and Technology* 62
- Labrianidis, L., 2011. Επενδύοντας στη φυγή. Η διαρροή επιστημόνων από την Ελλάδα την εποχή της παγκοσμιοποίησης, *Κριτική*
- Leontidou, L. Donnan, H. Afouxenidis, A., 2005. Exclusion and difference along the EU border :Social and cultural markers, spatialities and mapping, *International Journal of Urban and Regional Research*, pp. 389-407
- Massey, D. S., Arango, J., Hugo, G., Kouaouchi, A., Pellegrino, A. and Taylor, J. E., 1998. *Worlds in Motion. Understanding International Migration at the End of the Millennium*, New York: Oxford University Press.
- Nitsiakos, B., 2006. Μετανάστευση και διεθνικότητα. Περίπτωση των Αλβανών μεταναστών στην Ελλάδα. Εισήγηση σε επιστημονικό Συμπόσιο, Πάντειο Πανεπιστήμιο.
- Owyang, J. K., 2009. The future of the Social Web: In Five Eras Forrester Research.
- Pouloroulou, H. 1986. Προβλήματα μετανάστευσης παλιννόστησης, ΙΜΕΟ-ΕΔΗΜ, τευχ.49
- Pelagidis, T., 2001. Παγκοσμιοποίηση των ροών εργασίας. Θέσεις – τριμηνιαία επιθεώρηση.
- Polyzos, S., 2006. Οι μετανασταστευτικές ροές προς την Ελλάδα: Ανάλυση προσδιοριστικών παραγόντων, τυπολογία περιφερειών υποδοχής και χωρών προέλευσης. «αιχώρος»
- Sellato, S., Mascolo, C., Musolesi, M., Latora, V., 2010. Distance Matters : Geosocial Metrics for Online Social Networks, in *Proceedings of the 3rd Workshop on Online Social Networks (WOSN)*, Boston, MA
- Schiller, G., Basch, L., Blanc, S., 1992. *Transnationalism: A new analytic Framework for Understanding Migration*.
- Tzortzopoulou, M., 2002. Μετανάστες προς την Ελλάδα: η περίπτωση της περιοχής πρωτεύουσας. Phd Thesis Panteion University
- Vassilikou, C., 2007. Immigrant Women in Greece: A Biographical Study of Domestic Workers. *Gender, Equal Opportunities, Research* (1)
- Vertovec, S., 2004. Cheap calls: the social glue of migrant transnationalism, *Global Networks*4, pp 216–24.
- Wellman, B., 2001. Physical place and cyberspace: the rise of personalized networking, *International Journal of Urban and Regional Research* 25, pp. 227–52.
- Williams, M., Balaz, V., 2008. International mobility, learning and knowledge transfer: a case study of Slovak doctors, *Social Science and Medicine*, pp.67
- Zhang, J., 2010. Social media and distance education, *Distance Education Oracle UMUC*, pages 1-4.
- Zickuhr, K., 2012. Three-quarters of smartphone owners use location-based services. *Pew Research Center*. Retrieved from <http://www.pewinternet.org/Reports/2012/Location-based-services.aspx>