Particularities of computer and internet use in educational process at university students: implications for social development

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Authors note

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Abstract

Along with the identification of the positive effects, associated with the introduction of interactive media in the vast majority of human activities, the role of computer started to vary. Using the computer (interactive media) within the educational process, has had a positive effect. The purpose of this study is to show how the computer/the internet change, optimize or inhibit the educational process and analyze some aspects of those implications for social development of students. Utilising the online interview method, used on a sample of 53 students, - college participants, aged 18-26, followed by a qualitative research, - derived from the emergent theory - the present essay aims to analyse, through a methodological approach, with a qualitative intercession, the implications of internet and computer use on the main aspects of the social development of the young people.

Key words: students, social development, educational process, communication, online environment, computer, young people, school preparation

Zusammenfasung

Zusammen mit der Identifikation der positiven Effekte verbunden mit der Einführung interaktiver Medien in der überwiegenden Mehrheit der menschlichen Aktivitäten, die Rolle der Computer begann zu variieren. Mit der Anwendung von Computer (interaktive Medien) in den Bildungsprozess, es ist bekannt, einen positiven Effekt im Laufe der Zeit zu bringen.

Das Ziel dieser Studie es ist, zu zeigen, wie der Computer / das Internet Wechsel den Bildungsprozess optimiert oder hemmt, und analysiert einige Aspekte dieser Auswirkungen auf die soziale Entwicklung der Schüler. Unter Verwendung der Online-Interview-Methode auf einer Stichprobe von 53 Studenten, Hochschule-Teilnehmer im Alter von 18 bis 26 nach einer qualitativen Forschung, in Zusammenhang mit der emergent Theorie - Die vorliegende Untersuchung beschreibt, durch eine methodische Ansatz mit einer qualitativen Vermittlung zielt darauf ab, die Auswertung der Internet und Computer Nutzung über die wichtigsten Aspekte der sozialen Entwicklung der Jugendlichen zu analysieren.

Schlüsselworte: Studenten, gesellschaftliche Entwicklung, Bildungsprozess, Kommunikation, Online-Umfeld, Computer, Jugendliche, Schulvorbereitung.

Particularities of computer and internet use in educational process at university students: implications for social development

1. Introductory features & statistics

School preparation is an inherent part of social development of the young students, it represents a prerequisite for a desirable development and a foundation for the future professional development. Along with the identification of the positive effects, associated with the introduction of interactive media, in the vast majority of human activities, the role of computer started to vary. Using the computer (interactive media) within the educational process, has had a positive effect. The way the young people perceive the computer and internet in the school preparation process, indicates largely the coordinates of the readjustment of school learning requirements, brought by the new technology.

Both national statistics and international ones agree that teenagers and young people are the target population using computers and internet on increasingly high scale (Shield & Kane, 2011, Regan & Steeves, 2010, IRES, 2011, File & Ryan, 2014, ONS 2013). According to the statistical data we can see an increasing bias within the flow of time. As the related statistic shows, the age group, ranging from 16 to 24, is the one that is increasingly accessing the internet.
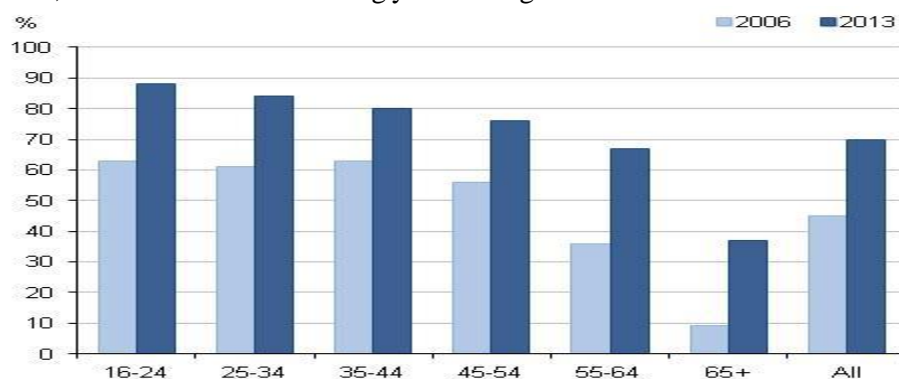

Figure 1. Computer/Internet use on age group in 2006 and 2013 (ONS 2013, p. 3)

National statistics indicate similar data regarding the increased frequency of internet use, year by year. The age group that inclines to use the computer on increasingly higher scale is between 21- 30 years. Based on these statistical evidence, we will analyze the role of the computer/internet and the way it pointes towards a different environment, and how it brings changes in the social development of the youth. Is it clear that the impact of using the new technologies reflects upon the whole process of

development of the youth.

As a segment of social development the academic preparation is an important step in the development of the young adult. The computer/internet use throughout the educational process is a necessity and a real support for both students and teachers. (Coakes & Willis, 2002; Jones et al., 2008; Allen & Seman, 2005; Lenhart et al., 2010).

The main functions of using the internet /computer in the educational process are found both in the skills that students acquire and the level of teaching (Balakrishnan, 2010; Charp, 2000; George et al. 2006).The findings of the current study are consistent with other researches in the field. Studies have shown the main functions of the computer/internet use, in preparing for school (for teenagers and students). Internet is an inexhaustible information source, internet means also communication without barriers, and it can provide interactive online learning, not only that but online research done by electronic means, newsfeed, enhancing interest in education, it promotes a holistic education, it provides various teaching and learning methods (Lenhart et al., 2010; Khanchali & Zidat, 2011).

Altogether with the benefits associated with using the internet/computer in the educational process we have identified a number of negative factors that can create real barriers in training school students. The use of new technologies in the academic writing process creates ambiguity between the formation and the development of different writing styles (formal and informal) so that students are unsure whether, using formal or informal writing (we can recall difficulties in writing official or scientific works) (Purcell, Buchanan & Friedrich, 2013). Another problem faced by students, due to the use of digital resources, in writing scientific works is plagiarism or avoiding the rules of writing standard works but also problems with spelling and/or grammar (ibidem). Like these aspects confirmed by international research, the current study identified that the disposal of traditional teaching (books, handwriting, etc.) can have negative effects both in the quality of school education (superficial knowledge) and psychological social level (low self-confidence and little social interactions). Implementing the academic requirements with computer, reorganized the learning process of students and sometimes leads to the use of computer for other purposes, for a long period.

2. Methodology elements, sampling and research design

As main methods of empirical research we used semi-structured/structured online interview and online observation (Williams, 2007). For the analysis and the interpretation of data we chose the theoretical foundation together with emerging theory linked with the qualitative computer software analysis Atlas.ti 7 (Glasser & Strauss, 1967 and Smith, 2002). Atlas.ti7 is a software specialized in the analysis of qualitative data, used by researchers in the Social Sciences field. In this research, the use of a qualitative analysis software (Atlas.ti) helped me in the process of interpreting and processing data (by simplifying the process of coding responses, a better data management/ordering, more easily identifying the content categories, rendering a conceptual diagram which concisely outlines the research results, see Figure 2). I used selective coding, which made possible the analysis through the demo version of the program, available at the website http://atlasti.com/.

Utilising the online interview method, used on a sample of 53 students, - college participants, aged 18-26, followed by a qualitative research - derived from the emergent theory - the present essay aims to analyse, through a methodological approach, with a qualitative intercession, the implications of internet and computer use on the main aspects of the social development of the young people

The data was interpreted and processed by computer-aided qualitative package - Atlas.ti7. Using qualitative research methods enhanced by the computer / internet has started to become the concern of

contemporary researchers, facilitating their knowledge faster and more efficiently. In this study we choose to use only the e-mail to enable participants to argue, justify or clarify answers, already formulated and submitted online, through the website of research (http://www.proiectcercetare.co nf / cercetare.php). The online page was created specifically for the purpose of this research. The cumulated data allowed the creation of a database which automatically recorded the participants' answers to the interview questions (which has significantly streamlined the process of data gathering).

Sampling Method: The research sample consisted of 53 participants with ages between 18-26 years, B.A. or M.A. students of UBB. Sampling was one of convenience, depending on the acceptance and willingness of the students to respond to the questions. The process of data gathering was based on the set up of a research web page to facilitate the interaction between researcher and subject (http://www.proiectcercetare.co.nf/index.php). The website research was shared on Yahoo or Facebook`s groups of students of Babeş-Bolyai University. The students were encouraged to provide elaborated answers which were rewarded with personal development books.

In this context, the actual purpose of the research was to analyze how the use of computer / internet influence academic preparation and social development at college students. The main objectives were considered: emphasizing the benefits of computer/Internet use in academic preparation by college students; exploring the negative effects of using computer/internet in educational process at college students; identifying the implications arising from the social development of students occurred against the background of internet usage in the educational process.

The research questions from which we began the study were:
• What are the benefits computer / Internet use in the educational process, by college students?
• What are the negative effects computer / Internet use in the educational process at college students?
• What are the implications of computer / internet use in the educational process of students' social development?

3. Interpretation and analysis of data

One of the main purposes of computer use at students, is the fact that it is a educational instrument. The young adults associate the computer with their academic life, they perceive it as cognitive instrument, a real support in school tasks, a means of information about the assignments, or important news from their aria and also a way to keep in touch with classmates / teachers, and means to get real support throughout the educational process:,,... computer / laptop has an important place in my life because it includes the main documents that I need in college and some programs that facilitate my work etc'' (188.1). The students recall a series of benefits they enjoyed due to the fact that the new technology facilitate their work. The participants look on the computer/internet as an environment in which they can grow and develop, they often found in it a resource that minimizes costs in terms of time, communication and information. In this direction the computer is seen as an enriching resource of information: "computer ...helps me…to be always informed; I can find any information in real time and fast'' (167).

The role of the computer in school preparation is perceived differently by the participants according to their educational level, displaying an important increase as the level of education is higher: "The computer is a *sine qua non* object as the Latin says - without you can not be – in nowadays, especially if you are a student. You must be always in touch with your colleagues, you must be informed or you must find useful information about your exams" (255,1).

The positive effects of introducing computerised means into the learning sphere, as they are perceived by the students, can be found in: the particularities of class management (professor-student interaction and restructuring the educational process), teaching means and strategies (academic resources/ online resources), the improvement in learning process - by increasing the access to documentation and information regarding scientific content, facilitating information - regarding the organization of educational approach and the school results dispersal.

At the level of class management, students recall the importance of computer and internet use in interaction with educational actors (professor- student, student- professor) and the media resources which supports the entire educational process. The online communication between professors and students, or simply among the students is perceived by participants like a growing mechanism providing information regarding educational activities and thus, as a resource of improvement in the quality of teaching: "The internet and the computer are helping me a lot. I can watch quite a few studies on projects that I am working on, I can contact professors or my smart colleagues, I can surf for pages, I can order books...."(154,4). If the college students prefer face to face communication with their closest friends, online communications is preferred in the case of faculty colleagues when trying to find information about the educational tasks: "I mainly talk online with my faculty colleagues strictly regarding seminars or courses/ I prefer to speak face to face with my closest friends"(241,2). The improvement in technology of education in the teaching strategies is seen from the perspective of educational actors as a key to efficient learning (the access to scholar documents in electronic format reduces the material and time costs: the internet facilitates access to various information in no time) : "...the internet is much more practical nowadays in schools. We - the students, are fascinated by the computer because it helps us in finding much more quicker the information we need" (222,4). The use of computerised programs (Office suite or other educational/scholar expert software) are seen by the students as a support resource in their academic preparation. Often computerised work is seen as an compulsory academic requirement: "The majority of projects we work on require Microsoft Office. Lately I used Microsoft Word and Power Point in doing homework, presentations, so I was saying, the computer is almost compulsory" (107,4). Facilitating the information regarding the organization of teaching staff and the school results is carried out with both virtual interactions between the main educational actors (professors- student, student- professor) and also through new computer software (academic platforms, web pages) which allow students the access to information: finding out the time schedule, information regarding school results, scientific conferences or any other relevant issues regarding students life: "In preparing for school I use the computer for documentation, for reading specialized articles, for reading books, to find out the schedule or other relevant information regarding courses"(141,4).

Although most participants mentioned especially positive effects of computer use on school education, the content analysis of all empirical data captured is raising some concerns by involving technological resources in teaching (felted more strongly in the learning part). The circulation of electronic information in the educational endeavour, often leads young students to choose online teaching materials. The quality of information from different websites which students are accessing is frequently not scientifically valid, which leads to inefficient learning and, as such, it is building up inefficient structures of information. Participants that have a rather holistic approach to computer and internet use in their academic life remind the fact that they are getting rid of the traditional educational methods (books,

handwriting, etc.) these could have negative effects both in the quality of school education (shallow knowledge), as well as the psycho-social level (diminishing confidence in its own strength and poor social interactions): "I believe that for some, the computer had a positive impact... but unfortunately, the computer was a negative influence on some students, because spending large amounts of time in front of it, playing or just doing stuff, they did not do anything other then just wasting time, or taking a step back in their learning process, because the internet provided them with finite information and they only had to copy and then paste without knowing what was written in those documents, papers"(200,4).

4. **Conclusions:**

School preparation alongside professional, social integration, maintaining and developing relationships with various actor sets the bases for social development of young people. The interference, which academic life brings to youth development, influences the whole course of the development of a future adult. The improvement in technology of education and the increased implication of media resources in this process, can determine the young people to substitute the exacerbated importance of computer to other aspects of day-by-day life (See Figure 2:). On this line, promoting a technological culture in schools, or educational institutions, in which the teenager or young person operates, can induce an increased importance of technological means in other aspects of life trajectory of the young adult (communication, relations development, etc). In this direction, it is very important that the educational actors responsible for the policies and the educational curriculum, are being made aware of the effects of using the internet/ computer in designing the educational process. The role of teachers is to support the student into maximizing the positive effects of computer use, and to mitigate the disturbances associated with the use of computers in the teaching process.
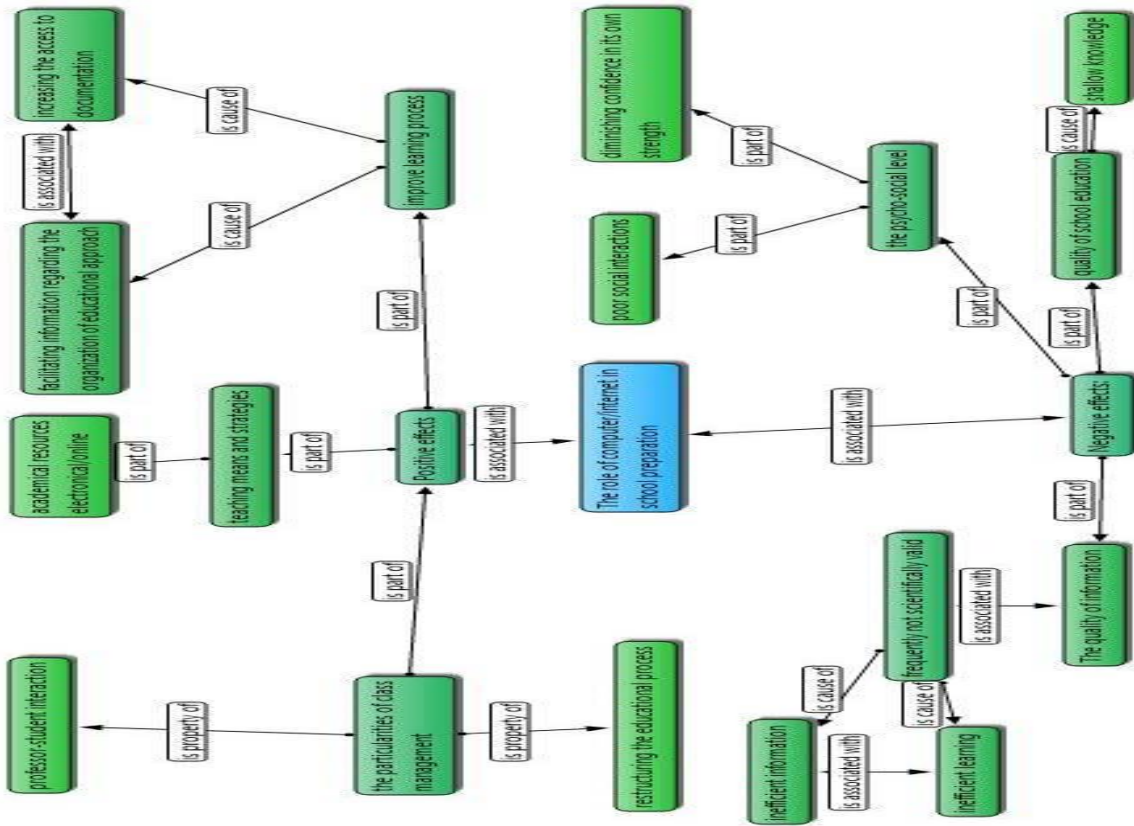
Figure 2: Concepts Diagram in Atlas.ti7

The conceptual diagram (Figure 2) highlights the role of computer and internet use in the school education process of young students. In order to capture the importance given to these technological resources in the school development of young students, the main concepts resulted by computer analysis for this content category were interrelated with several types of connections (is part of, is caused by, is associated with…)

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