



TECHNOLOGIES AND TRUST

EDITED BY PIER GIUSEPPE ROSSI
AND LORELLA GIANNANDREA

MEDIA
E

TECNOLOGIE

PER
LA
DIDATTICA

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Media e tecnologie per la didattica

Collana diretta da Pier Cesare Rivoltella, Pier Giuseppe Rossi

La collana si rivolge a quanti, operando nei settori dell'educazione e della formazione, sono interessati a una riflessione profonda sulla relazione tra conoscenza, azione e tecnologie. Queste modificano la concezione del mondo e gli artefatti tecnologici si collocano in modo "ambiguo" tra la persona e l'ambiente; in alcuni casi sono esterne alla persona, in altri sono quasi parte della persona, come a formare un corpo esteso.

La didattica e le tecnologie sono legate a doppio filo. Le tecnologie dell'educazione non sono un settore specialistico, ma un filo rosso che attraversa la didattica stessa. E questo da differenti prospettive. Le tecnologie e i media modificano modalità operative e culturali della società; influiscono sulle concettualizzazioni e sugli stili di studio e di conoscenza di studenti e adulti. I processi di mediazione nella didattica prendono forma grazie agli artefatti tecnologici che a un tempo strutturano e sono strutturati dai processi didattici.

Le nuove tecnologie modificano e rivoluzionano la relazione tra formale informale.

Partendo da tali presupposti la collana intende indagare vari versanti.

Il primo è quello del legame tra media, linguaggi, conoscenza e didattica. La ricerca dovrà esplorare, con un approccio sia teorico, sia sperimentale, come la presenza dei media intervenga sulle strutture del pensiero e come le pratiche didattiche interagiscano con i dispositivi sottesi, analizzando il legame con la professionalità docente, da un lato, e con nuove modalità di apprendimento dall'altro.

Il secondo versante è relativo al ruolo degli artefatti tecnologici nella mediazione didattica. Analizzerà l'impatto delle Tecnologie dell'Educazione nella progettazione, nell'insegnamento, nella documentazione e nella pratiche organizzative della scuola.

Lo spettro è molto ampio e non limitato alle nuove tecnologie; ampio spazio avranno, comunque, l'*e-learning*, il digitale in classe, il *web 2.0*, l'*IA*.

Il terzo versante intende indagare l'ambito tradizionalmente indicato con il termine *Media Education*. Esso riguarda l'integrazione dei *media* nel curriculum nella duplice dimensione dell'analisi critica e della produzione creativa e si allarga a comprendere i temi della cittadinanza digitale, dell'etica dei media, del consumo responsabile, nonché la declinazione del rapporto tra i media e il processo educativo/formativo nell'extra-scuola, nella prevenzione, nel lavoro sociale, nelle organizzazioni.

Per l'esplorazione dei tre versanti si darà voce non solo ad autori italiani, ma saranno anche proposti al pubblico italiano alcune significative produzioni della pubblicistica internazionale. Inoltre la collana sarà attenta ai territori di confine tra differenti discipline. Non solo, quindi, la pedagogia e la didattica, ma anche il mondo delle neuroscienze, delle scienze cognitive e dell'ingegneria dell'informazione.

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How Technology is Changing Trust

Pier Giuseppe Rossi, University of Macerata

Abstract

What is trust and how the concept of trust evolved over time is a question that poses an ontological problem. This paper focuses in trying to understand how our concept of trust changes in the recursive relationship we have with digital technologies, i.e. in the recursion between creating technologies and being determined by technology. After a definition of digital technologies, the paper highlight two of the potentialities offered by digital technologies: the possibility of manipulating every artefact during the whole of its life and the possibility of connecting people and facilitating participation, as we believe these have an impact on the concept of trust.

Keywords

Participation; artefacts; digital technologies; plurality of worlds.

Authors' presentation

Pier Giuseppe Rossi is full professor in Didactics and Technology of Education, at the Departement of Education, Cultural Heritage and Turism, University of Macerata (Italy). He is the author of several books, book chapters and scientific articles in his fields of research.

Foreword

Maria Czerepaniak-Walczak and Elizabeth Perzycka's research on trust poses an ontological problem. If the usual question that was raised about this theme was: how reliable is a given information, person, system, thereby taking the meaning of trust for granted, the question that the two researchers set is what is trust and how has the concept of trust evolved over time. In particular, they have questioned whether current society, the current culture, the impact of new technologies are changing the concept of trust. Focus has therefore shifted from an epistemological to an ontological level and we will direct our attention to this matter in this paper, limiting our studies to the impact that digital technologies have on trust. The research question that therefore arises is not so much that of highlighting the information value and of the "truth" contained in digital artefacts, as in trying to understand how our concept of trust changes in the recursive relationship we have with digital technologies, i.e. in the recursion between creating technologies and being determined by technology.

The reflections that follow are also the result of the survey conducted through a questionnaire within the SIT project, almost identical for all contexts, given to thousands of students at various levels of education and to several hundred teachers.

Firstly, we must define what we mean by digital technology: the term refers to all technologies that use bits to store and transmit information. In these, words, images, sounds, meta-information concerning the document's structure adopt the bit as alphabet. Such a definition includes both hardware, therefore computers, cell phones, digital cameras, and software, i.e. applications, environments, social media; therefore the term media, in this context, refers both to the hardware and the software, but also to the artefacts/documents produced by such hardware and software.

The following analysis will highlight two of the potentialities offered by digital technology: the possibility of manipulating every artefact during the whole of its life and the possibility of connecting people and facilitating participation, as we believe these have an impact on the concept of trust.

Manipulation and participation

Digital artefacts can be changed throughout their whole life cycle by means of two processes which, while distinct, allow the user to leave a subjective trace on the artefact. The first is the one that allows intervening directly on the artefact: an image, a sound, a text can be changed if you have

the proprietary software. Some applications available on the web also allow a collaborative production of artefacts through several proprietary software and the ability to act on these, even after their first creation: think of Wiki and Drive. The second process which allows you to leave a subjective trace on the artefact is to comment and cut out somebody else's artefact. A pdf document, which may be modified, but with more difficulty, a text in Kindle or e-pub or even a collection of text blocks in Diigo or in Mendeley, are apparently more static, but still allow comments, underscores, annotations. These traces can be shared and are visible on the web by anybody who enters, thereby becoming a paratext of the initial artefact or a new text which is the result of the assembled pieces.

Where the impact of analogue technologies (photography, film, audio recording) was the result of reproducing the artwork, in digital technologies not only is the artefact duplicated, itself, but it changes during its life, it lives a continuous transformation.

The second potentiality, participation, is related to the first. In the previous lines we have already pointed out how transformation by a user/producer may be shared and how it is possible to produce something in collaboration with some software. Two processes that encourage participation can also be identified here. The first, of course, is sharing the artefacts. Many artefacts are on the web and are accessible by multiple subjects at the same time. Even when I am working directly and apparently privately on an artefact, in reality this artefact is often either in cloud (Drive, Dropbox, Copy, for example) and therefore immediately available to all those who share my space, or is directly on line as happens when you write a post on a blog or insert an image into a social media. The second participatory process is through synchronous communication. Many digital applications guarantee a presence within a virtual network¹ in which thoughts, artefacts, information may be immediately exchanged. We are connected in real time through text messages, WhatsApp, Skype, Facebook, Twitter. As long as you have a mobile/smartphone with a data network or a connected PC. Data network is perhaps one of the currently most globalised technologies.

¹The terms real and virtual have the following meaning in the text: the real world is the one where a simultaneous physical presence between two subjects is possible, that is, direct contact without the use of prosthesis is possible, the virtual world is the one in which the subjects are connected through digital prostheses. This division between real and virtual is only functional to the article and to understanding it, as the authors consider real relations and real worlds both those in which there is f2f connection, and those where digital prosthesis are used.

The two processes, manipulation and participation, produce an effect as they both operate simultaneously on the artefact. If an artefact could be manipulated without sharing the result, this would be equivalent to the practice, which has always existed, of highlighting a text or making notes on the margins. Sharing gives the modified text the equal status of the original text. Equally, if it were possible to share, but not manipulate, the transmission would not allow conveying my personal contribution.

By reflecting on the combined effects of manipulation and participation, it can be perceived that two processes which were once separated and travelled on different channels are now intertwined: the process of producing cultural artefacts and the process of interpersonal exchange.

The construction of artefacts and interpersonal exchanges

Once the production of cultural artefacts and of interpersonal relationships used to travel on different levels/channels. Relationships used personal communication and analogue systems (letters and phone) only during the last century, the production and transmission of information travelled through different channels (newspapers, radio and television) and their contents were independent and not determined by the receiver. This is true for television, radio, but also for written texts, whether they are newspapers, magazines or books. The world of information was one only and identical for everyone.

Today, thanks to the intermingling between participation and manipulation produced by digital technologies, the information enjoyed by each subject is no longer just that conveyed from the one-to-many channels (newspapers, magazines, books, television), but there is also information which can be manipulated, i.e. information in the space-time which one attends, lives in and with which one interacts². This is the information concerning the community with which one dialogues and which is produced by the individual subjects of that community. There is no longer a single world, but multiple, articulated, intertwined worlds. Each person lives/participates, even during a single day, in several worlds and each of them has its own rules, its ethics and its languages. Very often it is the participation in several worlds which enables what was discussed or produced in circle A to circulate in circle B.

²It would also be interesting to analyse how the culture of manipulation-participation is changing the one-to-many channels. For example the role of newspaper and magazine websites with their huge space assigned to interaction or in television with the presence of programs based on audience interaction, through phone calls, remote voting, interviews and “reality” programs.

But this artefact moved from A to B now brings with it the name and therefore the identity and reliability of whoever posted it in B as a connotative element, and should be read with B's culture. The identity of each of us is multiplied/divided according to the worlds we attend and help to build.

Trust and plurality of worlds

How does the ontological concept of trust change in a culture characterised by intertwining manipulating and participating?

Previously, in the "single" world, the quality of information was determined by the ability of the producer to demonstrate the validity of the proposal and its authenticity. Clearly this was ascribable to the prestige of the author or the channel, for example a newspaper, radio or TV channel, and the structure of the artefact. The author's credibility depended on his competence, on his knowledge of the specific fact, on his monitoring to ensure that what he said was later confirmed by other sources or by other facts.

Participation, however, was in relation to presence, interpersonal relationship, care, constancy.

These days the merger of production and participation creates, as mentioned, a multiplication of worlds and entrusts care with a central role in the relationship between trust and information. Not only is the quality of the information important, but also its connection with the recipient's experiences and with his world, in other words, the sense of the recipient's participation with that particular context which is a life, culture and social life context. Also, because the active role of the recipient leads to a blurring of the division between sender and receiver.

Facebook therefore becomes both a space where information is exchanged and commented on, and the space where the connection between self and the others is reified, a space of participation. It is possible to exchange information, but also to say good night to one's friends. Both processes structure the concept of trust, whereby the greater the care with which a subject participates and is present, the greater is his reliability. Each posted photo and thought does not only constitute information, but also care towards one's world. Joining in occurs by feeding it with personal thoughts and knowledge and both information and affection are received from it.

Consider if you will, the importance which information channels linked to the social media have had on certain processes. Social media have been an alternative channel to glossy magazines and official newspapers when documenting the Gulf War and played a decisive role in the Arab Spring, both in

relation to its internal dissemination, and in relation to information outside the borders.

Being part of a G + circle or followers and following is different from buying “La Repubblica” (Italian newspaper). They require direct participation, a subjective choice, more or less direct knowledge, they require accepting or requesting a contact with a specific person, a relationship, exposing oneself in person, being accepted i.e. being considered worthy/considered as someone worthy of trust. Another example is given by blogs concerning consumer goods and utilities. Whilst specialised magazines were once the primary source to be consulted in order to decide whether to buy or not to buy a particular product, or to decide how to carry out a particular maintenance or activity (especially in DIY), nowadays blogs and specialised forums have the most significant role. Reference figures emerge also in this case: these are the ones who give frequent information, who answer questions personally and who are acknowledged as people who know the facts and, above all, who are active and present in discussions on various issues. Their authority is born and grows according to their participation.

If participation and information are intertwined

Linking information to participation has various consequences on the concept of trust.

1. The connection between participation and information no longer leads to defining trust based on the content of this information and within the artefact, but based **on the role of the artefact in the system of relationships**, in the world of relationships based on a personal network. Truth lies in the care with which we live the web, in the possibility of being there, in our presence on the internet. Reliability as truth of the information provided and reliability as care, with which to feed the community, increasingly overlap and relate to each other.
2. Once relationships were based on a direct interaction which in most cases was achieved by personal presence and therefore were linked to the possibility of sharing a physical space, and information occupied a different space, the **rules and ethics** concerning these two fields were different. The intertwining of the two areas, implemented by digital technologies, changes both the values and rules of information, and that of personal relationships. Each of the possible worlds we live in during the day requires a strong cohesion on different levels: it requires our attention, sharing a language, a culture, values, knowledge. It is no coincidence that many circles coalesce around issues and ideas, when at relationships once

depended, in most cases, on space sharing, both personal and at work. Those who now belong to my circle are no longer just family members, a study or work colleague of mine, a neighbour, but those who belong to my network, share my interests or perspectives, no matter how far away they may be. Even my family members and colleagues are in a relationship with me only if they are part of my network or my circle. Therefore, those who belong to my circle must have two characteristics: they must take care of me; that is be regularly connected and present in my virtual spaces, they must share my ideas and my rules, or at least be capable of dialoguing with them.

3. If **values and truth dialogue**, then what is proposed by constructivism and in particular by Guba and Lincoln (1994) is reified, i.e. the strong impact of ethical aspects on “truth” is reified. We have already mentioned the fact that digital media allows manipulating artefacts. This creates a new relationship between subjectivity and objectivity, since it places the artefact in a continuous construction process to which the individual directly participates. The concept of absolute and extensive truth vanishes. Truth is linked to the world in which it was created and to the rules shared within this world.

If the age of Enlightenment replaced the absolute law based on truth revealed by natural law, now the biggest crisis our society is facing, the one which divides the Western world from the Arab world, from the world of the emerging powers, from the world of East Asia- South American, is also due to the absence of a common reference and to the search for a new basis for civil coexistence.

The moment that natural law was seen as an expression of a specific world, the Western one, the basis on which relations between people had been based for two centuries, just collapsed. The fact that, although many of the liberation struggles in various countries against imperialism were based on natural law, the West used its culture and its political and military strength to control the imperialist world must be borne in mind.

Today, now that the cultural base on which the world’s coexistence was based has collapsed, each world claims its own reference point including an identity one. Simultaneously, aggregations across various macro-blocks are emerging, involving individuals connected by bonds which are born and live in digital networks and which are based each time on sharing specific interests and values. These networks come from the bottom and sometimes are not very extended, others are very large and spread across the globe. They feed on shared values and knowledge, and participation.

4. Finally, the link between truth and ethics can be interpreted as a link between **memory**, which is knowledge of the world, and **promise**, i.e. our intentional actions within the world. In other words the truth of information must be consistent with the modality of action. But we will talk about that later.

An example: the scientific community and the validation of products

The scientific community can be a good example of the role of digital networks in building aggregation and reputation. Resuming Khun's classic concepts (1970), the scientific community internally defines its own rules and procedures with which to validate its products. It decides its languages and research topics. With the advent of digital technology, the link between participation in the community and validation of products, i.e. between "reputation" and "care", has certainly increased.

Here are just a few examples to support what has been said. Publishers' primary role these days is definitely not that of "printing" texts, but is increasingly that of encouraging product sharing and interaction and to encourage the community's involvement in their production (manipulation of artefacts). Think about Elsevier with SCOPUS and the care with which the publisher accompanies the author in positioning his product. In order to emphasise the importance of SCOPUS, it is stated: "As research becomes increasingly global, interdisciplinary and collaborative, you can make sure that critical research from around the world is not missed when you choose Scopus".

Or, think of the new social media for research which encourage the discussion of articles whilst they are being written and the socialisation of the debate. The journal *Nature Physics*, with a high IF, has published several articles about the collaborative aspects of research. The no. 5, 237 issue of *Nature Physics* (2009) had an editorial entitled: "Problem solved (probably)" and subtitled "Research could progress as never before as scientists embrace the ever-growing possibilities for collaboration via the web". In the same issue, the article by Nielsen is titled "Information awakening. Online tools for collaboration and sharing information have changed the routine of scientists. But the revolution that will turn scientific information from a collection of files into an active system has just begun".

As the author says, research no longer follows a linear process which begins with the production of an artefact (the author's task) and ends with its fruition (assigned to the receiver), but increasingly follows collaborative processes, where production and enjoyment are present throughout the life of

the scientific communication and produce a recursive and circular path in which these same subjects play multiple roles both related to enjoyment and to production. The research is shared and discussed within the community even before being published; the exchange of notes and reviews, the communion in the social networks, the construction of dynamic bibliographies with selected databases (Mendelay for example, but also Google scholar), the construction of shared file archives (ResearchGate, Accademi.edu) constitute the new publications and feed debate within the community. Not surprisingly Mendelay is a research tool offered by Elsevier, which allows researchers to share bibliographies and writings on specific topics. An article in *The Economist*³, which describes Research Gate, states that connectivity between researchers may improve the quality of academic research.

The circle is closed by highlighting that the assessment and reputation of researchers also arise from participation. The peer review system is the basis of scientific reputation⁴, as indexing and citations are elements which validate personal research in many areas. Once again community, participation, sharing and *peer to peer evaluation*.

Memory and promise

We now return to the previously enunciated theme, i.e. how the link between information and participation can be read in Ricoeur's (2004) terms of memory and promise. Memory is understood as the memory of the past, the evidence of previous experience, the evidence which supports information. Promise is understood as the choice of a future trajectory, a personal decision to act and to be, the positioning within a personal and professional path, the will to act in a given direction.

If truth is absolute, memory can exist even without any relation to action. Truth has an independent self-validation from the subject. As Ricoeur points out, moving away from Descartes and retrieving the Kantian tradition in this regard,

Coordination between the plane of sensitivity, where objects are given, and the plane of the intellect, where objects are thought, is themed by Kant as part of transcendental logic. In view of the criticism, the splitting of knowledge into sensitivity and

³ Article dated 11/02/2012: "Professor Facebook- More connective tissue may make academia more efficient".

⁴ The most important publishers establish a particular peer review system while arranging training paths for the referees.

intellect crosses the distinction between the transcendental and the empirical perspective. (...) The act of connecting, this unique operation in which receptivity of sensitivity is created together with the spontaneity of the intellect, is basically an act of judgment.

After reporting Kant's statement: "Judgment is therefore the mediated knowledge of an object, and therefore the representation of a representation of that object", Ricoeur summarises:

Judging does not mean uniting the possibility of choosing with the possibility of receiving the idea, therefore uniting will with intellect as in Descartes, it means putting sensitive intuitions under a concept; in a nutshell to subsume.

According to Ricoeur there is, therefore, the need to subsume the two processes and to envisage a liability of action. Deciding is not just the mechanical product of a cognitive algorithm. This in any case had also been stated by Aristotle, who in this regard distinguished Phronesis and knowledge.

Hence the need to tie memory and promise into a one-to-one relationship. And by the end of the last century, all action theories had reached results that partially coincide with our claims up to now.

How do new technologies intervene in the recursive process of memory and promise, or of knowledge and action nowadays?

Technology provides the graphic organiser which legitimises the argument as it provides the structure which links the evidence to the subjective opinion and brings out its consistency, if there is any. The reliability of one's actions passes through the bonds that the web reifies between thought and action; internet both offers personal opinions, and requires the subject to document actions and behaviours. It becomes in a sense the guarantor of the reliability of knowledge through action and of action through knowledge. It is its structure which guarantees the presence or not of this link. In many cases today, the web provides evidence in many judicial processes as it documents spaces and times of action through processes which, on the one hand, appear offensive to personal practices and on the other constitute the basis of each person's presence within his own network. The e-portfolio, as a specific contribution by this volume will show, exemplifies the link between memory and promise.

Conclusion

The recursive synergy between manipulation and participation has created a process that has woven together truth and relationship and has strongly linked the concept of trust to the care with which each subject joins his own community on the internet. Recovering the research of recent decades on action theory, the process highlighted on trust (between manipulation and participation) ties in with that between knowledge and action, and between the validity of knowledge and the responsibility of action. In both processes, information and knowledge interact with each other with their subjective sphere and lose their character of absolute objectivity by binding more and more to the interpersonal circle which communicates on the web. Only this circle can indeed verify the care towards the community, the act consistency and the responsibility for the actions. These three elements are the basis of trust, of quality and of the reliability of information and the validity of knowledge.

Digital technologies provide the structure which connects and binds information and experiences, whether documenting one's life with photos on Facebook, or whether mobile phones and bank transactions trace the spaces and times of our life. The documentation on the web becomes knowledge and validation at the same time, not just an after-action "story" confirming personal thoughts and actions, but both document and action at the same time. The trace originates from the action itself, it is the action itself and it remains in time.

Moreover, the trace is public and the communities in which we operate and which share the traces of its members become collective judges of individual behaviour and of the consistency between idea and action. The community has always had the role of judging and giving meaning to individual conduct. The web has only shifted the community's centre of gravity and at the same time has modified the space, time and ways thereof. The link between production and communication is at the basis of this change. Technologies enable us to build and modify cultural artefacts, allowing us to make them public immediately within the network of relationships in the circle where each of us lives.

This recursion between building and participation has produced the interweaving between truth and care, between knowledge and ethics which is the basis of our present culture and which determines the ontological structure of trust that underpins today's society.

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Technology in the Classroom. Changes and Challenges

Dr. Aaliya Ahmed, Media Education Research Centre, University of Kashmir. *Dr. Mohmad Saleem Jahangir*, Department of Sociology, University of Kashmir. *Prof. Aneesha Shafi*, Department of Sociology, University of Kashmir

Abstract

The world witnessed profound changes during the last half of the 20th century, not the least of which involved a communication revolution and a rethinking of how people learn, how a knowledge society needs knowledge workers and citizens of the world. Technology is exerting a huge influence on how we live, work, and play and has also dramatically affected changes in the teaching and learning environment within schools and are transforming the way we think about education. One key responsibility of educators is to empower students to learn by using the most effective instructional tools available to them. However, having technology available does not assure, nor make it more likely, it will be used as a tool during instruction. We are living in a time when change is taking place in the nature of literacy and learning. However, the potential of new technology for learning is not found in the technology itself, instead it is in the way technology is used as tool for learning. With technology more readily available in classrooms, it needs be considered an integral, effective instructional tool within the curriculum. The paper is an attempt to develop a perspective on the pedagogical phenomena in order to understand the nature of change and challenges faced by the inclusion of technology in everyday classroom teaching and learning.

Keywords

Technology; classroom; pedagogy; linkage; teaching.

Authors' presentation

Dr. Aaliya Ahmed, Senior Assistant Professor (Mass Communication and Journalism) has been teaching at the University of Kashmir for more than ten years. Being trained in conflict reporting and social affairs reporting, her specialization include media and gender studies and media education.

Dr Mohmad Saleem Jahangir, Senior Assistant Professor (Sociology) has been working in the University of Kashmir since 2008. Interested in the field of Globalization and Marxism, he has a book to his credit besides many research papers published in various reputed journals.

Dr Aneesa Shafi, Professor (Sociology) has been working in the University of Kashmir since 1991 and is presently heading the Department of Sociology. Specializing in the field of gender studies, she has two books to her credit besides many research papers published in various reputed journals. She is presently the Member, Managing Committee of prestigious Indian Sociological Society and North-West Indian Sociological Association.

Authors' contributions: Introduction and Teacher in the era of technology: Dr. Aaliya Ahmed. Technology in the classroom and Linkage between student and technology: Dr. Mohmad Saleem Jahangir. Indian Scene and Conclusion: Prof Aneesa Shafi.

Introduction

From the magic lanterns of 1870s to the cloud computing in the 21st century, technology has come a long way in keeping us engaged and stimulated. The introduction of new technologies unleashed in its wake unprecedented amounts of data and information which consequently brought a radical and far reaching transformation in the educational requirements of individuals and is manifest in the growing need to examine the role of technology in education. The rapid expansion in technology has altered the educational landscape globally. These technologies are best understood as a means of better communication, improved processing and exchange of information which surprises us at every node, opening up new links and offering us a huge amount of information which multiplies at an uncontrollable speed in data banks, in hypertexts, and in networks. Levy in his book '*Cyberculture*' refers to the current barrage of information as *second deluge*. In effect we are witnessing an actual overflow of data which floods our research for new knowledge in a pluralistic and fragmented way. New modes of access to information are emerging. Earlier it was radio and television which brought about a revolution through its school broadcasts and countrywide classrooms. The slide and overhead projector's have served for many years. In a world in which everything seems to be 24/7 and on demand, schools operate with rigid years, grades, terms and timetables. The Internet has changed the education system and brought about remarkable changes in education including classroom and online learning, online interactions between teachers and students, virtual classrooms and other components of teaching, learning and training, in flexible and global terms thus expanding the educational arena. The user-

centered approach of using technology in education makes possible the significant application of technology as a tool to aid teaching and learning process in the contemporary times. In the era of digital revolution, various pedagogical relations are redefining and redesigning themselves. Because of the rapid gains in both the amount of information and sources for information transmitted, students come to learning with a very different skill set than did students who attended school just a decade ago.. In addition there is a very different recognition of what skills need to be acquired for future success in society. On a micro level, students future skills must include knowing how to problem solve, how to successfully work both alone and on collaborative teams, how to think independently, yet access diverse external resources, and how to adjust to an ever changing environment. On a macro level all students must be able to support and add to a highly knowledgeable workforce based in science and technology. Anderson (2007) reviewed the research on autonomous learning and described two useful frameworks (Garrison1997; Peters 1998) for understanding the complex nature of independent learning: self management of pedagogy and self monitoring of cognition or meta cognition. When students effectively self manage, they recognize and control their learning goals and their outward learning strategies and efforts. When self monitoring their cognition, they recognize and control their inner cognitive strategies.

Modern technologies offer us with new possibilities to improve the way we develop our work as educators and has made teaching learning process more productive. Information rich society promotes new practices and paradigms for education where the teacher has to play new role of mentoring, coaching and helping students in their studies rather to play the conventional role of spoon feeding in the classrooms. They can interact and share learning experiences with their teachers and fellow learners in knowledge construction and dissemination process. They can receive and use information of all kinds in more constructive and productive fashion rather depending upon the teacher. An ebay for learning, could match learners with people with the skills to teach. Tools would allow one generation of learners to follow in the footsteps of others, learning from their mistakes. Social networks could link people so that they could learn with and from their friends, online. Knowledge is growing and accumulating at a very rapid pace and the use of technology play a key role in addressing the issues of quality, quantity and resources. Use of new media can greatly enrich class room instruction particularly where conditions are unsuitable for the users to have access to more resources. Technology as an aid to the teacher and the involvement of the teacher in it will make the teaching-learning process very rich. Technology-teaching relationship has the additional benefit of helping to shape emerging

technologies that is most effective for cognition and instruction. The emerging new role of the teacher in a classroom environment has been essentially enhanced by the application and usage of technology in the learning process. The purpose of technology in education can considerably alter the way modules and curriculum are designed and delivered. Effective planning and strategic thinking can pave the way for a new pedagogical approach where students are expected to play more active role than before. Using information and communication technology (ICT) as a tool in education, students should be able to communicate, and interact with colleagues and teachers using technology and so on. The developing nations can profit from technological expansion wherein professionals have to be prepared and educated with thorough knowledge of utilization ICT.

Undoubtedly, without these recent technologies (i.e. digital games, Web 2.0, etc.) in the classroom, strong lessons can still be achieved, but there's a sharp disconnect between the way students are taught in school and the way the outside world approaches socialization, meaning-making, and accomplishment. It is critical that education not only seek to mitigate this disconnect in order to make these two "worlds" more seamless, but, of course, also to leverage the power of these emerging technologies for instructional gain. Where and how learning takes place and the roles of students and teachers in the learning process has undergone a shift. Technology in its various forms is showing how teaching and learning can paint with a much broader palette of colors, from images and music to games simulation, wikis and many others, any time-any place on laptops, desktops or smartphones. Virtual world allows for continuing and growing social interactions, which can serve as a basis for collaborative education. These technologies afford us the ability to convey concepts in new ways that would otherwise not be possible, efficient, or effective, with other instructional methods.

Teacher in the era of technology

Teachers together with their students, expect a continuously changing teaching methodology designed to meet individual learning objectives. Traditional forms of teaching and learning are increasingly being converted to online and virtual environments and, it could be argued, these changes offer a unique opportunity to transform the nature of teaching and learning (Evans & Nation, 2000). Changing instructional approaches is no easy task, particularly when technology is involved. Adopting and integrating technology-based instructional strategies has a long history of challenges, but with it has come a great understanding of how to achieve success with them. The lecture

system has been in vogue for centuries and is still the most dominant system in the teaching-learning process. However, the method which has been so extensively used has its own limitations. Pertinent to mention, it lays emphasis on four characteristics :a) teaching has to be done by the teacher b) it has to be done in the classroom c) the learner has to be a full timer and d) teaching has to be face-to-face. Use of technology in the classroom seems to overcome the limitations i.e., the need for all participants to be physically present. Also we can see the enlargement of the teaching learning context. It extends from a very narrow school building to very far physical environments and to virtual environments. Research institutions, libraries, and databases from all over the world enter the classroom and determine the need of new literacy skills. Changes in the physical space of education induces the pluralization of teaching methods. The research about the capacity of technology to improve learning and teaching shows that it can play a key role in the complex task of better engaging young people in the learning process. Recent research about use of technology and its effects on teaching and learning shows that when combined with effective teaching, the use of technology helps young people develop already widely valued skills and abilities.. It also helps with the development of other significant outcomes like higher order thinking skills. Importantly, technology and good teaching also combine to produce the generic skills, like teamwork and problem solving, that are so important not only for life in the information age, but also for lifelong learning. The strategic introduction of technology into a school can seriously challenge its day to day practices and help schools more effectively align their teaching and learning programs with the requirements of the information economy and the need for lifelong learning (Detya, 2000). Teacher's simultaneous use of Technology, Pedagogy, and Content Knowledge brings into play what is known as a TPACK model by Kohler and Mishra (2009), and originally based on Shulman's framework of PCK. This framework underlines that Technology, Content or subject matter, and Pedagogy are not isolated components. Successful integration is possible when the teacher assimilates his or her Knowledge of Pedagogy, Knowledge of Content, and Knowledge of Technology.

Technology in the classroom

Technology can help facilitate the knowledge-constructed classroom. A number of researchers (Bork, 1985; Laboratory for Comparative Human Cognition, 1989; Papert, 1980; Ragosta, 1982)

view computers as having an influential effect on the teaching and learning processes. They state that with the use of computers in the classroom, schools would become more student-centered and that more individualized learning would take place than ever before and identified ICT as an essential tool for learning (Buckingham, 2007; Papert 1980, 1983). They recognize that ICT can be a valuable tool in teaching and learning the basics, but also are aware of the challenges of integrating ICT into educational settings (Thirumurthy & Sundaram, 2003). In the student-centered classrooms of today, with the aid of the computer, students are able to collaborate, to use critical thinking, and to find alternatives to solutions of problems (Jaber, 1997). But the shift from teacher-centered delivery to a student-centered model potentially leads to a resistance in change. Student-centered teaching is challenging educators to restudy their teaching methods and student learning methods (Jaber, 1997). Research done by Dwyer, Ringstaff, and Sandholtz (1991) indicates that computers can be used in collaboration for all subject areas, but that teachers have to take into account the different styles of teaching and the students involved in this learning. This type of teaching requires a change in the teacher's method of teaching and learning, the amount of time needed to learn how to use the technology and the location of models that work with technology (Sheingold & Hadley, 1990). However, The World Bank study (2011) suggested that merely putting computers in schools and training teachers to use them will not improve the learning levels in students. A two year study conducted by the World Bank (2011) in Colombia where the computers were deputed in public schools from the year 2002 to 2008, showed no relationship between learning achievement and computers in the classroom. One of the obvious reasons for this as explained in the study was that the computers in the schools were used to learn computer systems and applications with no plan and efforts to integrate it with the teaching and learning in the classroom. (azim premji foundation).

Researchers argue that the traditional role that instructors have played in higher education systems, as “gatekeepers of information” or “knowledge holders” is changing with the use of information technologies. This new scenario calls for a more active student in a more flexible environment. We can observe that the teacher/ tutor no longer has an easy place between the learner and the construction of knowledge. His/her role as a knowledge provider is highly reduced by the self access to information feature of ICT. The use of

online media becomes of particular relevance in order to provide for flexibility in access and participation while catering to geographical separation. Librero (2006) observed that conventional universities are now using ICTs to achieve ‘blended learning’ environments, which blend traditional face-to-face classroom delivery with distance delivery. This blended approach has “increased the sources of learning materials that learners must access under blended learning strategies”.

Linkage between student and technology

With the arrival of information technologies into the lecture hall, students become information providers as well as information receivers (Tyner, 1998). It is a change of educational paradigm from the transmission of knowledge by the teacher to the construction of knowledge by the learner. This fact alters the student’s role in the lecture hall. Information technologies and digital communication enables students to go beyond the four walls of the lecture hall in order to have access to mentors, resources, opportunities, and alternative perspectives. In an ICT enabled environment, learners can enjoy captivating presentations of relevant knowledge delivered in formats tailored to their attributes, enhanced by new ways of facilitating absorption of information through the involvement of learner in self testing and seamless interaction with feedback. As a result, the learner feels there are practical applications for this knowledge, and it can be used to their benefit. New developments in technologies are increasing the capacities of the new media and prove to be useful in the disseminating of information. The fast growth of knowledge has led to ‘knowledge society’. In this context, it becomes imperative to restructure our courses and programmes in order to make our education relevant to our needs. Active learning in the computer-based environment can be measured by the level or amount of participation of the students and the quality and significance of their group work. The nature of the computer-based learning domain contributes to enabling and supporting active learning. Students actively present ideas and respond to one another’s formulations, a process that contributes to facilitating higher developmental levels of understanding.

The research conducted shows that technology can help students including those who have a problem of socioeconomic factors, health factors, family and other factors learn and practice a variety of skills and improves their attitudes to learning. These students need to be challenged and encouraged to use complex thinking skills. Teachers need to encourage the growth of reasoning, problem solving, and independent thinking among them. Tinio

(2002) indicated that ICTs are a potentially powerful tool for extending educational opportunities, both formal and non-formal, to previously underserved constituencies scattered, and rural populations, groups traditionally excluded from education due to cultural or social reasons such as ethnic minorities, girls and women, persons with disabilities, and the elderly, as well as all others who for reasons of cost or because of time constraints are unable to enroll on campus. Tinio further noted that ICT can expand access to education in the following ways:

- Anytime, anywhere: One defining feature of ICTs is their ability to transcend time and space. ICTs make possible asynchronous learning, or learning characterized by a time lag between the delivery of instruction and its reception by learners. Online course materials, for example, may be accessed 24 hours a day, 7 days a week. ICT-based educational delivery (e.g., educational programming broadcast over radio or television) also dispenses with the need for all learners and the instructor to be in one physical location. Additionally, certain types of ICTs, such as teleconferencing technologies, enable instruction to be received simultaneously by multiple, geographically dispersed learners (i.e., synchronous learning).
- Access to remote learning resources: Teachers and learners no longer have to rely solely on printed books and other materials in physical media housed in libraries, and available in limited quantities for their educational needs. With the Internet and the World Wide Web, a wealth of learning materials in almost every subject and in a variety of media can now be accessed from anywhere at any time of the day and by an unlimited number of people. This is particularly significant for many schools in developing countries, and even some in developed countries, that have limited and outdated library resources. ICTs also facilitate access to resource persons- mentors, experts, researchers, professionals, business leaders, and peers all over the world.
- Improving the quality of education and training is a critical issue, particularly at a time of educational expansion: ICTs can enhance the quality of education in several ways; by increasing learner motivation and engagement, by facilitating the acquisition of basic skills, and by enhancing teacher training (Haddad & Jurich, 2002). ICTs are also transformational tools which, when used appropriately, can promote the shift to a learner-centered environment.
- Motivating to learn: ICTs such as videos, television and multimedia computer software that combine text, sound, and colorful, moving images can be used to provide challenging and authentic content that will engage the student in the learning process. Interactive radio likewise makes use of sound effects, songs, dramatizations, comic skits, and other performance

conventions to compel the students to listen and become involved in the lessons being delivered. More so than any other type of ICT, networked computers with Internet connectivity can increase learner motivation as it combines the media richness and interactivity of other ICTs with the opportunity to connect with real people and to participate in real world events.

World Bank (2003) report cites the potential that ICT has to improve efficient delivery of resources to the poor, to bring markets within reach of rural communities, to improve government services and schools, and to transfer knowledge needed to meet the Millennium Development Goals. The World Bank report also notes that ICT can increase access to education through distance learning, train teachers, allow for a greater network of knowledge sharing among students, and potentially provide equitable access to quality educational materials.

Indian Scene

Over the last few decades, tremendous developments have taken place in the realm of new technologies which constitute an important and inevitable component of education. From SITE (Satellite Instructional Television Programme) in the 1970's to the virtual class room and cloud computing in the new millennium, India has made significant strides in the application of new technology to education. The scope of educational programmes based on communication media has further been enhanced by the introduction of education channels on the satellite network. The transition from old technologies to new technologies has enabled us to solve effectively the problems connected with the quantitative expansion, qualitative improvement of education and resource mobilization. With the introduction of ICT comes a whole process of transition from traditional to new attitudes and skills. However, many problems loom large over the education system in India. With mind boggling population and poverty, the education scenario in India has many a hurdles to cross. The school drop out, the access and digital divide offer many challenges. Chudgar (2009) explains, "Many Indian children, especially those in rural areas, do not complete elementary education. Indeed, many never enroll in school, and many drop out after only a few years of schooling" (p. 403). A 2005 Social and Rural Research Institute survey identified that about 7 percent, or about 13.5 million Indian children in the age group of 6–13 years were not in school. The proportion is even higher in rural areas in India. Of that same age group range of 6–13 year old children,

almost 8 percent were not in school in rural areas (Chudgar, 2009). The persistence of class and caste differences and the prevalence of child labour further complicate this scenario, obstructing both girls and boys from having equal opportunities to education (Unicef). The education system is inadequately developed - wracked by a shortage of resources, schools, classrooms and teachers. Of India's 700,000 rural schools, only one in six have toilets deterring children especially girls from going to school, and if enrolled, in remaining there. In addition are cultural factors: continuing discrimination against the girl child plays a crucial role in creating resistance around sending girls to school. (Unicef) Bharadwaj's (2007) quantitative study reveals the ICT realities related to the 10% schools which are ICT equipped. He surveyed one thousand (1000) schools in India and found that, on average, there were less than six computers per school. This worked out to be about one computer for seventy two students. Likewise, Bharadwaj found that less than 9% of the teachers in the schools surveyed had access to the Internet, whether at school or outside. Kashmir being one of the states of India present a similar picture in the use of technology in education. With the state being in a situation of imbroglia for more than two decades, there has not been much development in the education sector. The picture is dismal and needs infrastructure and resources at a very large scale.

Conclusion

The ability to interact with one another simultaneously provides students the opportunity to learn concepts not easily learned from a textbook or lecture. There is a need to move away from the homogenized approach of learning environments and to engage with and investigate the complexity and diversity in learning environments. We are at a critical junction, when the new technologies of communication today offer an unparalleled opportunity to reconsider conventional educational and learning practices and institutions.

The call for change in education based on the recognition of the increase in the role of technology and rapid advancement of technology types and uses requires major modifications to traditional methods of teaching and expected outcome. Students must not only learn but also learn how to learn. Increased engagement of students is paramount. The key to meeting this challenge is an appreciation of the role of technology as an agent of change in the classroom, which includes not only the teacher and the teaching-learning process but also systemic issues like reach, equity, and quality. Information and Communication Technologies (ICTs) have brought in a convergence of the media along with the possibility of multi-centric participation

in the content- generation and disseminative process. This has implications not only for the quality of the interchange but also for drastic upheavals of centre-dominated mindsets that have inhibited qualitative improvement. As a result there will be a continued push to deliver higher standards, more consistently for all students with better teaching in better classrooms. It is not the teachers who should be using the technology to teach students, but rather their students who should be using it, as tools to teach themselves. The teacher's role should not be a technological one, but an intellectual one – to provide the students with context, quality assurance, and individualized help. Teachers have a vital role to play at the intersection of technology and 21st century skills—modeling their confidence with technology, guiding young minds toward constructive educational purposes, and teaching students the tried and new skills for a competitive world. There needs to be a mental shift that allows the incorporation of innovations into the pedagogical setting without cannibalizing it and form a new integrated system. Technology integration in education as explained above is a systemic process. Modern technology has its potential in schools, in the teaching of subjects, in examinations, in research, in systemic reforms, and, above all, in teacher education, overcoming the conventional problems of scale and reach through online, anytime, anywhere.

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From Face to Face to Face... book. New Methodologies for Using Facebook as a Teaching Tool

Davide De Gennaro

Abstract

Unlike traditional teaching methods (face to face, in which a plurality of individual interfaces with the physical shape of a teacher), the modern technological systems have sparked numerous innovations to improve teaching methods. You hear about blended learning: integrating various methodologies (traditional and innovative) to provide a new pedagogical style to students.

An important platform to facilitate the learning of university activities is Facebook: since 2004, the most popular social network in the world, with about one billion active users. In recent years, however, it has also been recognized as a useful e-learning platform. Thanks to Facebook benefits of learning are associated to a better communication among students, a better access to resources and a better management of logistics courses.

The social network involves students using technologies which are familiar to the new generations: there is an increasement of interactivity and collaboration, flexibility and networking. We must of course pay attention to the critical issues arising from the dangers of stalking, distractions, lack of privacy, but the advantages of a greater access to information, a better way to analyze researching capabilities and many other advantages make Facebook a new and important frontier for modern teaching.

Keywords

Teaching; Blended Learning; Facebook; Social Network; Learning Platforms.

Authors' presentation

Davide de Gennaro was born in 1989. At 23, graduated with brilliant grades, de Gennaro exceeds a tough selection and enrolled, in 2013, in a course of PhD in Law, Economics and Social Institutions at the University of Naples Parthenope. In love with the culture, he is attending lectures and seminars with many important professors like Otto Pfersman (Sorbonne University, Paris), Lorian Roberson

(Columbia University, NY), Miguel Basanez (Tufts University, Boston), Remo Bodei (UCLA, Los Angeles), Olivier Butzbach (Faculty of Political Studies for the European and Mediterranean High Education). Today Davide is 25: he is a Catholic educator and he dreams of becoming a professor.

Introduction

Since the '90s, there has been a radical change in the way of experiencing the world that led metamorphosis in all areas. From now on all institutions have learned to exploit and to benefit from new technologies, while until some time ago the school district still seemed anchored in archaic teaching methods and solutions (Lathi, 1998).

In the first part of the paper we present the contributions that new systems of education have led to modern teaching methods. We discuss about blended learning and e-learning in general and then we focus on the social networks and on Facebook in general.

Finally the study of the consequences of an intelligent use of Social to improve teaching methods, especially in university, with the use of a private group of Facebook. The study shows a substantial improvement for students in the way of living the college career and examinations in particular.

Blended and E-Learning

If until the mid-2000s the term “e-learning” has been a key term in the literature on distance education, starting in the following years new expressions have been imposed in the vocabulary related to the studies on web based learning (Clark & Mayer, 2011).

There has been a progressive shift from e-learning of the first generation, based on the use of closed platforms (called Learning Management System) (Matuga, 2001), to e-learning of the second generation, characterized by the use of devices of Web 2.0. The latter are usually described as “dynamic”, “interactive”, “democratic”, “social”, “user-centered”: if the first generation of the web was different, in fact, for facility of access and use of resources, the second is characterized by the immediate production and socialization of the contents (John & Sutherland, 2004).

Recent studies have ensured that it is useful to talk about blended learning: technology becomes a key tool to improve teaching techniques at all levels. The traditional teaching has thus seen a gradual evolution through interactive multimedia, for which they have arrived at a modern context in

which they overturned and completely undermined all methodological paradigms and temporal learning (Lathi, 1998). Thanks to the Internet are obviously more accessible information and materials not easily findable anywhere else, and the interest and the attention of students seems to grow exponentially (Berge & Collins, 1995).

Through the e-learning activities students can achieve significant results in the way of learning and culture in the way of studying, like a different approach to the study of each subject. Students can acquire a collaborative mindset, receive positive contributions by the teacher and the other students and in turn they can intervene and provide grants that will be useful to all members of the group (Driscoll, 2002). Teaching online greatly reduces the distance between teacher and student and between student and student, as if on the web you would reverse a virtual classroom where it is more practical having interaction between people (Berge & Collins, 1995). It's easier in this perspective for the teacher to learn from the questions asked by students to customize learning paths and spend more time on difficult topics and on topics seemingly difficult to understand (Bonaiuti, 2006).

E-learning is becoming increasingly important in modern educational environments thanks to its undeniable advantages over traditional classroom training (Ranieri, 2005). This article aims to promote a new innovative teaching method based on the use of Facebook as a tool to improve teaching in university classrooms for all subjects.

In recent years, the radical change in the way of understanding the binomial teaching/learning led, globally, many schools and universities to integrate their way of teaching with the most modern and advanced technologies based mainly on the Web (Ranieri, 2005). The same trend is felt in professional training since the traditional systems, based on classroom lectures, have always brought, for companies, high costs for both implementation and in terms of lost production. In contrast, distance education through new technology ensures considerable benefits, first of all extreme flexibility of time and space: the student is no longer forced to be present at the same place of the teacher and he can also study from home when and how much he wants (John & Sutherland, 2004). Add to this we consider the improvement of access to education, increasing the quality of the training content, its management more flexible, the ability to easily measure the results and decreasing costs: we understand why distance learning is actually very appetizing in all educational environments (Matuga, 2001).

Unfortunately the current systems of distance learning are not without flaws. Currently, the main flaw of the systems on the market is that they do not fully exploit the potential of the means they have available: very often,

social networks and social media in general are used as mere vehicles of information and not as tools capable of processing this information in an intelligent and personalized way (Ranieri, 2005). More specifically, they do not allow for the customization of teaching on the real needs and capacity of the individual but they offer standard courses for all users, do not allow the adoption of innovative educational models and they remain often linked to the traditional model of classroom teaching or they are reduced to a simple individual study of electronic textbooks (Bonaiuti, 2006).

Unfortunately, the tools of distance learning often exploit the results of the exercises only for reporting on progress of the students and not to influence on the successive learning experience through, for example, variations in the sequence of lessons or the use of any material of recovery ; these tools fail to independently assess pedagogical parameters for individual students essential for optimizing the learning process as, for example, cognitive abilities and perceptual abilities in relation to different types of media (Bonaiuti, 2006).

The risk is that these tools do not offer any intelligent support to teachers in the creation of courses other than the ability to aggregate material and establish a learning path through it, without offer any intelligent support to learners in their choice of educational objectives based on the prerequisites already owned (Wildman & Inayatullah, 1994). The purpose of this article is to show how you can overcome these limitations through the use of a social network like Facebook to enhance the experience of teaching.

Facebook and The Social Network

Social Media, which constitute the specific subject of this paper, belong to the second generation of the web (web 2.0 tools) and they, in recent years, have been seen by many literates as a powerful driving force for the transformation of the practices of teaching and learning in an open, interactive and social perspective (Hanneman & Riddle, 2014). Although they are rare threads located in the context of the potential of Web 2.0 for teaching, social media, and more generally the application of Web 2.0, they are seen as devices that facilitate participatory learning and knowledge building. Being interactive, social and flexible, these tools can provide students with a space to actively collaborate to generate knowledge, rather than just to passively receive information (Penuel et. al, 2009).

These forms of cooperation are not limited to work in small groups, but they can cover entire networks consisting of a plurality of individuals united

by common interests, the so-called “collective”. In parallel, the new generations of students are represented as less and less satisfied of the simply passive use of the contents and they are increasingly prone to creating and sharing digital resources (Penuel et. al, 2009). These media, in fact, enable and at the same time feed on the participation of people who, through their actions, can produce, share, exchange, make interactive and populate these virtual environments based of contents and social relations (Greenhow & Robelia, 2009).

An innovative idea is the use of Facebook as a system for online teaching to complement the traditional face to face courses taught in the classroom (Cheung et. al, 2011). Information technology and in particular social networks allow their students to have an easily access to learning materials and tutoring online services without the constraints of time and place: it changes in this way the ways of learning (Fife, 2010).

Using Facebook as a tool for teaching also creates in the student an habit to see the Internet and the web in general as a source of materials and documents (Munoz & Towner, 2009).

With the highest number of subscribers, more than one billion and 300 million (Facebook, 2014), Facebook is considered the social network par excellence. Created in 2004, available in more than 70 languages, Facebook is more than a social networking site; it is actually a social platform that contains within itself a myriad of features and applications both native and developed by third parties (groups, pages, private messaging, photo albums and videos, notes, events, but also games, professional applications and many others) (Junco, 2012, Nadkarni & Hofmann, 2012). The growing use of Facebook as a learning tool and as a scholarship environment is evidenced by the growing number of educational experiences and research based on it (Phillips et. al, 2011).

The explosion of Facebook has in fact inevitably aroused reflections and attention even by academics and literary critics (Cheung et. al, 2011). If in Italy the landscape is still mostly limited to texts and articles that highlight the economic, social and even political benefits generated by Facebook and other social networks, in parallel there are many contributions of authors, mostly of Anglo-Saxon countries, much more interested to grasp the potential of educating and teaching of these Web 2.0 tools (Junco, 2012). Looking at the most popular social networking sites, it can be observed as they offer users the ability to upload and share their resources such as images and video, but also to include, for example, the function of the chat to discuss in private, and a public profile that each user can update and possibly customize at will (Fife, 2010). This in itself may explain at least in part the success of an environment such as Facebook, which succeeds better than others to integrate

different resources, achieving an high level of multimedia and thus meeting the new generations, more and more “multitasking” (Nadkarni & Hofmann, 2012). However, and it is still an open challenge for scholars, it is groped to describe in detail the actual behavior of users in these social networks (Watkins, 2009). Some researchers have shown, for example, with regard to adults, a greater tendency to employ these sites to expand their network of knowledge, what is customarily called properly “social networking”, where the term “network” denotes the tendency, more rather widespread among adolescents, to interact on the Web with networks of friends and acquaintances who already have, playing so perfectly the real world in a virtual world (Cross, Borgatti, & Parker, 2002).

Social networks can provide users the opportunity to expand their knowledge and their level of information, so as to be profitable in the learning, if we include the opportunity for comparison and interaction with other peers (Hanneman & Riddle, 2014).

An additional element, particularly relevant at the pedagogical level, it is a chance to experience, through the tools of Web 2.0, a collaborative learning, or, according to a socio-constructivist approach, not the simple interaction with other users of the Network, but sharing resources and especially the production of new materials (Downes, 2005).

Discussion: Facebook as a tool for teaching

Many were the innovative teaching techniques used in recent years: it has gone from theater to jazz, from cinema to Youtube, from counseling to coaching (Barbaro et. al, 2012). Many systems are adopted with the only common purpose of stimulating motivation and interest of the students towards any school subject they were preparing to study. It is necessary that in the age of media and information technology teaching also adapts itself to innovative forms; in fact it is generating a school environment where communication and learning are experienced 24 on 24 hours without any apparent stop (Munoz & Towner, 2009).

Below we show the reasons that led to undertake a series of studies in which social networks, particularly Facebook, could be the secret weapon for teachers of any subjects to excite students to its themes. First, the choice of the social network Facebook it’s because of its characteristics that make it different from all the others (Kirkpatrick, 2011). The primary peculiarity of this social is the number of members: in 2012 they were recorded one billion people, and of course the number has increased exponentially in recent years (Phillips et. al, 2011). Still, an important advantage it is the social

interaction that Facebook generates: in fact it shows an interface that is relatively simple to use and that offers the possibility of a cooperative and permanent learning. Another feature of the social network is the consequence of the previous year, and it is represented by the facilitation of communication between students and students and between students and teachers, as it is to generate a communication channel fast and constantly active (Phillips et. al, 2011). What Facebook questions can be promoted in private (even if this mode is not useful for helping other students participating in the course) or publicly (with public comments or posts). The social network of course also enables the delivery of multimedia content in the reference group, so you can post photographs and images representative of doubts or concerns (Watkins, 2009).

It needs having a computer or a smartphone that is equipped with an internet connection (and the vast majority of students (if not all students) has got at least one supplied) to manage in the best way the immense flow of information of the web. It would obviously be useful to create printed materials and support for the few students who do not have internet from private home, first ascertaining the number of people without adequate technological tools (Fewkes & McCabe, 2012).

The innovative teaching idea is to open a private group on facebook and to load on it informational materials which are then brought to the attention of the students of the lessons (Junco, 2012). Through a proper technological and didactical organization it also would be possible recording live lectures in class and post them on the Facebook group to make also absent students and working students partakers of the content and the explanations of the lessons. In this way the lessons are accessible to all students: it is available to both students absent for any reason both to students who wish to use the online lesson to repeat in a better way some concepts not perfectly understandable. Facebook also facilitates the organization of the lessons as it makes possible to simultaneously share online contents or slides of the lectures, so you engage students and enhance the limited time available during the lessons (Fewkes & McCabe, 2012). Even during lessons, students will then use their mobile device to follow in the best way the lesson and to not have to give up anything concept. In this way the lessons face to face further demonstrate the true value of the interaction in the presence as an indispensable tool to clarify concepts otherwise taken for granted by the teacher (Teclhaimanot & Hickman, 2011).

It is published in this way on the reference group the trail used within the course, also by using external links: in this way facebook becomes a sort of archive and, at the same time, it becomes a program of study functional and

constantly updated for the teacher and for students (Teclehaimanot & Hickman, 2011).

It is important for the operation of the platform the organization of the resources potentially useful for the course. And there is no doubt that the multimedia material posted by students further enriches the variety of resources available to all students in the course. In this way, the groups of the following years will be more comprehensive and increasingly understood as a network of opinions, thoughts, projects (Fewkes & McCabe, 2012). The continued availability on the social media of teaching tools for the study, training test, communication and chat with fellow students and teacher is an important resource to stimulate both autonomous and cooperative learning. It is useful to include exam tests and interactive exercises that allow students a self-assessment, understood as a fundamental tool to improve their understanding of the topics cornerstone of the subject in question. Thanks to the instant feedback generated by classmates or the teacher himself it is possible to identify and solve, maybe even repeat during the courses face to face, any problems when they arise (Walsh et. al, 2013).

Thanks to the instrument of private group of Facebook you have a daily monitoring of student activities on the social network, and you constantly receive feedback from students so that any errors or perplexities become a significant learning opportunity for all students, even those who until then they had not expressed themselves on the subject in question (Cheung et. al, 2011).

The motivation, a positive reinforcement and the sense of control of the students on their learning are absolutely critical factors: it is essential to attract the attention and interest of the students about them learning environments by using e-learning tools that are closer to the reality that they live every day (Watkins, 2009).

Obviously you need to protect the privacy of students that, on the social networks, usually share not only the basic information of identity (with name, age and real photos) but also they share their passions, their desires, movements, thoughts, ideas (Walsh et. al, 2013). There are also risks resulting from the multiplication and fragmentation of information channels that can generate confusion and therefore require the development of appropriate strategies for the selection and validation of resources (Fewkes & McCabe, 2012). There are furthermore other additional sources of tension, including the challenge of redefining the roles of teacher and student, the opposition of the working group that operates in a closed traditional e-learning platform and a work arena opened to contributions and the comments of all, the relationship between individual learning and collaborative learning, where the latter raises problems not only for the assessment but also in the view of the

particular learning styles of students (Teclehaimanot & Hickman, 2011). At these critical issues there are others that are specific to the university context. In general, you can highlight a wide diversity of values and visions between the academic and social world: the first is characterized by a vertical and hierarchical organization, and the second for the horizontal and participatory approaches; the formal process of review and scientific evaluation is typical of the first questioned by the production of content “from below” typical of the second (Greenhow & Robelia, 2009).

Conclusion

The educational goal to which intends to bring into play the Facebook group is the awareness of the social network as an useful information tool. Internet brings with itself enormous potential for research and organization of information, although students often use the same tools only for recreation or as a waste of time (Downes, 2005). Also opportunities are fed for aggregation in a blended environment where everyone has space, time and possibility to discuss and reflect, to develop critical thinking and understand how learning is not limited to the simple acquisition of concepts, but that is an important mindset (Driscoll, 2002). Social networks thus represent a reservoir of potential that have been developed, up to now, only a small part, but which are actually able to transform education style thanks to multimedia and blended learning. It comes a new way to collaborate, communicate, teach that it is no longer anchored to the previous limits of space and time but rather it is able to overcome the isolation and bring to a better didactic methods (Bonaiuti, 2006).

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Transfer of Learning and New Technologies. Methodological and Educational Reflections to Promote Learning and Inclusion

M. De Angelis, R. Vegliante

Abstract

Personalized learning implies an adaptation of teaching to those who are the individual characteristics of students, endorsing and strengthening the knowledge resources of the individual in order to prevent/decrease the possible disadvantages and promote inclusion. Today, these purposes assume, in school overview, the use of methodologies and alternative strategies, launching a rethinking of teaching practices used to date. The following paper is part of this perspective, proposing the teaching for transfer, together with the use of new technologies, how efficient and various methodology of planning/practice which aims at the fulfillment of interdisciplinary and inclusive itinerary promoting the acquisition of transferable competences in various contexts of life.

Keywords

Transfer of learning; inclusive teaching; phonological competence; textual comprehension; preschool.

Authors' presentation

Marta De Angelis is a teacher and a PhD candidate in Studies on Education at the University of Roma "Tor Vergata". She has conducted research on the use of the transfer of learning for increase phonological and language skills in kindergarten. On this subject, she wrote Music and transfer of learning: learning music, phonological and language skills in kindergarten (Italian Journal of Educational Research, 2014).

Rosa Vegliante degrees in Pedagogy and PhD in Methodology of Formative and Educational Research at the University of Salerno. She is working on a research project on inferential skills and functional use of the whiteboard in preschool. She wrote The development of inferential reading skills in kindergarten by means of IWB: a preliminary research (ECPS Journal, 2014); Reading comprehension of oral texts: training and stimulation through the interactive whiteboard (IWB) in kindergarten (Italian Journal of Educational Research, 2014).

Learning and teaching design: the teaching for transfer

The school, as a public institution that pursues the purposes of constitutional equality and equal dignity of all Italian citizens, should be the privileged place where implement an inclusive education, in order to eliminate or reduce all possible inequalities. However, changes to the creation of an inclusive school go beyond the concept of education of students with disabilities and / or special educational needs (D'Alessio, 2011).

Inclusion is a process of change that involves all stakeholders (teachers, students and educators) and requires a deep reflection on what the school of the new millennium must pursue. This presupposes the use of different methodologies and innovative teaching strategies that are able to grasp the peculiarities of each student, encouraging the different intelligences and different learning styles (Guilford, 1967; Gardner, 1983; Sternberg, 1985; Vianello, Cornoldi, 1991; Antonietti, Cantoia, 2000). In the actual teaching practice, however, there is no big attention to the different learning styles, whereas the teaching practice should establish a dialogue between the disciplines and knowledge that make up the school learning.

To make *a school of everyone*, it is our duty to avoid a rigid separation between the disciplines, offering interdisciplinary courses that develop different skills, favoring a transfer of learning that anticipate possible study difficulties.

The *transfer of learning*, defined as the ability of the subject to apply the learnings achieved in a situation to other situations similar or different (Bosco, 2002), is one of the main educational goals that the school system should be pursued for not risk a failure in the actual historic-cultural-economic context. This process is able to meet, at the same time, the demands of inclusion and customization - through the adaptation of teaching to the individual characteristics using specific methods of educational intervention (Baldacci, 2005) - and also the requirements relating to the acquisition of *life skills*, skills that every person must have in order to exercise their citizenship actively.

One of the main characteristics of the transfer is to be realized thanks to the mobility of learning (Tardif, 1999), reserving a key role both in the learner (active organizer of their knowledge) and the metacognitive processes used to control and reprocessing their knowledge (Cornoldi, 1995). It is, however, a complex mechanism inside which operate numerous variables.

Perkins and Salomon (1992) indicate some important conditions that can promote a transfer of learning:

- *thorough and diverse practice*: transfer may depend on extensive practice of the performance in question in a variety of context; the more you are

able to use the knowledge and skills in different contexts, the more you will be able to turn them into skills to evoke in new situations.

- *Explicit abstraction*: transfer also depends on the degree of abstraction that students are able to implement for the resolution of a task. In this case, the capacity of abstraction derives from the transfer of similar principles of resolution from one situation to another. Initially, to promote this mechanism, you may present tasks that have a high degree of affinity (explicit abstraction), and then gradually move to the tasks with less explicit similarities.
- *Active self-monitoring*: metacognitive reflection on one's own thinking processes appears to promote transfer of skills. While the process of abstraction focuses on the structure of the learning task, the self-monitoring focuses on their thought processes. The metacognitive action help the person to recognize when to use a strategy previously learned.
- *Arousing mindfulness*: mindfulness refers to a generalized state of alertness to the activities in one is engaged, in contrast with a passive reactive mode. The mindfulness is comprehensive and more general than the metacognitive processes. It would, therefore, preferable to activate the motivation and involvement of students, preventing them from being forced "to undergo" the action of the teacher.
- *Using a metaphor or analogy*: Transfer is facilitated when new material is studied in light of previously learned material that serves as an analogy or metaphor. Things known about the "old" domain of knowledge can now be transferred to a "new" domain thereby making it better understood and learned. For example, students may initially understand the idea of an atom better by thinking of it as a small solar system, or how the heart works by thinking of it as a pump. Of course, we must verify in advance the functionality and effectiveness of the analogies that will be their proposals.

For Tardif and Meirieu (1999), one of the most effective strategies to make a transfer of learning, is definitely the decontextualization and recontextualization of what is learned. This process takes place in three stages:

- *contextualization of learning*: at this early stage there is a recognition of the initial acquisition context that helps to make sense of this new knowledge or skill.
- *Decontextualization of learning*: the student understands that learning acquired in an initial context can be applied in different contexts. It is, therefore, to identify skills that are used to address a task independently of the context. The teacher works with the student gradually introducing it to the analysis of concrete and specific cases, making the distinction be-

tween surface indicators and structural indicators of a task, providing initial tasks that are not too far from the initial context of acquisition (horizontal transfer or low-level).

- *Recontextualization of learning*: at this level, knowledge should be structured, organized and controlled for create a new learning or solve a problem situation. It is in the context of new tasks that the student must reactivate and mobilize their knowledge and skills (vertical transfer or high-level).

Tessaro (2002) places the transfer of learning in a wider *design for mastery*, within a series of teaching phases, which would have the task of proposing a metacognitive approach to the study. With the *sharing of students' knowledge*, the task of the teacher is to stimulate *meaningful learning* (Ausubel, 1968) bringing out the knowledge already held by students about a topic of study. In the next step, called *mapping*, the teacher creates a cognitive dissonance introducing new information from the topic previously presented, making out the gap. With the *application (learning by doing)*, the information received is applied through the tasks. Students consolidate, thus, not only the presented concepts but also cognitive strategies used for the resolution of the task. In *transfer* phase, finding similarities and differences between the task done and tasks related situations already known, the student has an early form of generalization of the contents learned. Through *reconstruction*, promoting metacognitive reflection, you stimulate the students to go over the strategies that have led to the resolution of the learning task, analyzing the difficulties and facilities encountered during the process. In the next step, called *justification*, it is appropriate to promote the sharing of strategies used in the development of the task. With the *generalization*, finally, the student develops a real mastery and is able to make comparisons between various topics of the object using the acquired knowledge in problem situations not closely related to those of the initial task.

We agree with Margiotta (1997) when he argues that the set of skills of each operation can lead expert, during the teaching process, a progressive generalization of knowledge only if you teach the student also the rules to broaden the knowledge and retrace the processes that led to its decision. The competence then reaches a level of excellence that can be called *mastery*. The transferability, according to Le Boterf (2000), lies in the ability of the learner to establish ties, to weave the threads, to structure of the connections between the two situations; it is a result rather than a primary characteristic. Through the transfer is important "to mobilize" the knowledge and skills acquired by a cognitive domain to another if the situation so requires, giving space to the individual potential of each student. Do not consider the learning

disciplines as different and isolated from each other: one of the main characteristics of the teaching for transfer is its high degree of interdisciplinarity; it needs, in fact, to grasp the structural similarities present in two or more disciplines without focusing only on the superficial aspects, which characterize them. This process will also follow the degree of cognitive development of the students we work with; is an essential element to favor a lower or higher abstraction and cognitive metareflection on tasks proposed.

In time for inclusive teaching: educational and stimulation itinerary by IWB

Between teaching and learning process there is no relationship of cause and effect (*causality*), as well as between the use of new technologies and learning process does not exist deterministic relationships. But, ultimately, it is possible to integrate ICTs in the learning environment in order to promote significant learnings? The intention should be to create a *cognitive ecology frame* (Levy, 1990) using an active and participatory approach that has as its object the submission of problematic tasks.

We should think of a learning activity where it is insert the technological and methodological character to modify established practices. Making innovation in quality of teaching it means to build a favorable *setting* for the development of skills otherwise unattainable with traditional methods. Experimental resebarch, which engage this issue are conflicting, distinguish on two fronts: on one hand, there are studies that show evidence of the ineffectiveness of the relationship between new technologies and learning, confirming that to have a positive effect on learning are important teaching methods adopted (Russell, 1999; Bernard et al., 2004); across, other experimental results showing how the teaching actions, that make use of ICTs, specifically, the functional use of the IWB, support the involvement and the participation of the students, in order to make improvements in reading literacy, mathematics and sciences (Lewin et al., 2008). The IWB, placed inside of a balanced medial ecology, alternating moments of reflexivity and internalization, in moments of problematization, “could be used to promote rapid comparisons between the plurality of points of view, presenting notions and concepts in multimodal mode or from different perspectives” (Bonaiuti, 2009, 8). Actions of active teaching, made with the use of new technologies, would reflect *in toto* the prospect declined in the students output of the educational profile, as required by current legislation, which calls for the formation of a subject / person, to be able to integrate formal and informal knowledge, and

transfer, the learning achieved in other situations. The act of education, recalling Rivoltella (2010), have to be reconsidered from *practices misalignment* through which individuals realize learning in formal and informal context. Collins et al. (1995) believe that the class, ruled by practice, has become the place of the conceptualization and the fertile ground to develop divergent thinking. Practice is not subordinate to theory, as an expression of formal knowledge, but coexists with it and it represent the *quid* of teaching activity. This result is achieved when the technologies are not designed as extraneous to *ordinary* experience and sporadic used, but are active in daily practice as a necessary component to create an environment inherently predisposed to learning. In this context, metacognition, problem solving, active involvement, trading information and sharing meanings become the factors to found a community of learning as social-constructivism intend (Jonassen, 1999). Depending on advanced preconditions, in a *transfer of learning* character, we wonder if the use of the IWB is able to promote, through the links between various artifacts, opportunities of resources' transferability in other similar situations or if require the mobilization / integration of knowledge. The interactive whiteboard is not to be considered as a simple *means* to use in the classroom setting, but a valuable aid through which the teacher can help creating learning environments that facilitate collaboration and cooperation forms, among students engaged in an active manner, in providing solutions to problematic situations (Higgins, Beauchamp, Miller, 2007). The IWB "is, on one hand, an integration of four *brainframe* (alphabetical, video, computing and cyber) identified by de Kerckhove (1993) and, on other hand, it favors the multiple and different modality of access to knowledge, by stimulating the different dominances and intelligences" (Marzano, 2012, 109). IWB provides global access to knowledge and media, through the activation of three different sensory channels, visual, auditory and bodily-kinesthetic, and promotes forms of *learning by doing*. Interactivity mediate between the educational tool and the user, and it brings some improvements in the understanding process only if engaged in teaching methods that stimulate the activation of metacognitive strategies. As though, student may act directly on the whiteboard (behavioral interactivity), across, student is encouraged to personal reflections (mental interactivity). (Hall, Higgins, 2005; Digregorio, Sobel-Lojeski, 2009). Trough advantages of active teaching methodologies (such as co-participation, construction of learning objects, trading / sharing) is added motivation, as a necessary condition to encourage student learning and the development of higher competences, among which there are phonological and inferential skills. In fact, longitudinal studies have shown as these skills, involved in texts comprehension and early acquired, are predictive of performance in reading comprehension with advancing years (Kendeou,

2007). Indeed, at the age of 3-4, the development of oral language is the basis of two types of skills: the code skills and linguistic skills. First refer to phonological skills related to the analysis and the manipulation of sound units; rapid denominations, phonological memory along with alphabet knowledge function as essential condition in the text encoding. The second refer to higher order processes, such as skills and textual inferences, which play an important role in reading comprehension that assume the achieved student performances from preschool (Muter *et al.*, 2004). Kendeou's researches (Kendeou *et al.*, 2009) verify that, at the age of 4, decoding and understanding, even if operating synergistically in this process are two separate and autonomous factors; in other words, it is possible to operate in support of comprehension even before the acquisition of decoded capacity and, therefore, even before of schooling period. These studies emphasize how is important to stimulate the development of higher language skills, to facilitate the improvement of following learning. These studies emphasize how crucial early stimulate the development of higher order language skills to facilitate the improvement of following learning. The integration of the mechanisms underlying the comprehension are supported by frequent contact with texts. A necessary condition consists offering to children the reading of different texts, to get them used to listening. A possible framework can provide for creation of a comprehension's model, as a integrated process of information, inferred from oral texts supported by mono-multi / action images, in which the signification process is emphasized. In this way, the reader-listener is set before referents that require activation patterns of selection and integration to back to a semantic representation of the text (Cardarello, Contini, 2012). Assuming that the *transfer* is characterized by a strong *interdisciplinary interaction*, it would be interesting to propose the *training* of stimulation using the functional use of the IWB, to bring together different languages in order to encourage the development of the main skills involved in reading literacy, from preschool¹. Another way that looks promising is that between musical language and verbal language. Through an experimental study, Moreno (2011) has shown that only 20 days of musical training, conducted on pre-school children it is able to increase, in 90% of cases, students' performance on a

¹ The issue of spoke understanding text is the subject of investigation of PhD on Methodology Training and Educational Research, which is conducting by Rosa Vegliante, at the University of Salerno. The intentions' project came from the need to describe the communication and interactive process in the groups of kindergarten children, engaged in a task of text reading / comprehension through the use of functional IWB. The intent is to experiment, using specific methodologies and teaching aids, whether and to what extent it is possible to stimulate and facilitate the development of inferential skills through active involvement of student.

measure of verbal intelligence. Children seem to have a natural ability to learn the rules of language and music through exposure to examples “of consequence for music, like the language, the natural means is auditory-vocal” (Sloboda, 1995, 51). Binomial of musical education / phonological competences lends itself to the encounter with other disciplines: many studies have shown how are effective itinerary of musical education on reading skills, on logical-mathematical reasoning and on space-time reasoning (Biasutti, Marzano, 2008). An intervention designed to request language acquisition in children through learning a musical composition is desirable especially in kindergarten, the period in which these acquisitions are both headed to a predominantly perceptual-auditory channel. Therefore, reading comprehension competence is associated with phonological. In kindergarten, student has not yet fully aware of his cognitive process. The teachers’ task is to make attractive learning environment; for this reason the use of IWB, equipped with educational software that reflect the style of interactive games, video game tablet (with whom the children are daily interfaced), helps to make motivating and comprehensive the training setting. Ages 3 and up to 9, the adoption of new technologies requires a playful-exploratory approach “is occasionally employed new technologies according to a principal of *learning with*, aimed at enhancing the general dimensions of personality: creativity, self-esteem, motivation, expressive pleasure “(Calvani et al, 2010, 59). The plurality of incentives and different languages and communication channels, transform the traditional classroom into a learning environment intentionally built, in which “knowledge is distributed and technologies play an important role in the organization of the training setting” (Marzano, 2012, 53). This is also, in our view, a way to go to structure a multimedia environment that fosters inclusive significant and transferable learning and mobilized interdisciplinary competences.

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The CARER + Project. Build Trust and Promote Wellbeing for Carers and Older People through the Use of Technology

Rosita Deluigi, University of Macerata

Abstract

Our contribution will present the structure of the European project Carer+ “developing digital competences of care workers to Improve the quality of life of older people” in which it was designed a training course on the use of technology for carers and elderly people. The technological literacy can support communication, interpersonal and professional skills: in the home-care and interactions carer-elder, we can create new spaces of proximity to prevent exclusion and isolation of the elderly and to promote a continuous learning for the carer.

The role of careworkers as mediators was essential to start learning processes based on the use of technology, since, due to the direct interaction with seniors, they have built and strengthened contexts of trust in which to learn cooperatively. This approach highlight different aspects of trust in which is reinforced the quality of care work, the well-being of the elderly and the interactions with the family and the local context.

Keywords

Carer; elderly; trust; technologies; quality of life.

Authors' presentation

MarRosita Deluigi is a Researcher in General and Social Pedagogy at the University of Macerata, Department of Education, Cultural Heritage and Tourism since 2010. Her main research fields are: active ageing and intergenerational dialogue, Long Term Care related to migrant carers and transnational families, social participation, socio-educative inclusion and intercultural education.

Technologies and care work: the challenge of the interaction

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he European project *Carer+* “developing digital competences of care workers to improve the quality of life of older people” was launched in 2012 and will be finished this year (March 2015). It involved an international team of 14 institutions in eight EU countries. This project was partially funded by the ICT Policy Support Programme, as part of the Competitiveness and Innovation Framework Programme by the European Community.

“The project identifies and enhances ICT competences of care-workers who support older persons at home - anticipating a new and vital role for care workers. Introducing new, easy-to-use internet-based technology tools for older, [...] a competence framework, curriculum and training tools in theory and practice, training for trainers and policy exchange visits as well as an open online learning space and community for care-workers will be put in place to realize the challenging aims of the project”¹. The project has different objectives and we want to stress the importance of improving the quality of life, autonomy and safety of the elderly, as well as allowing them to live positively, ageing with the highest level of safety and autonomy. At the same time, *Carer+* is also an occasion for care worker that can learn digital competences “that will allow them to be more active in society, enhancing and diversifying their opportunities for EU mobility, employability (access to better jobs) and personal and professional development (access to VET)”².

The expected impact are about three topics: strengthen the use of ICT solution for delivering social support and care; increase digital competences and engagement of persons involved in this professional area; raise the profile of social inclusion work. There are different aims connected in a framework that supported the development of the entire project. The working group has launched the initiative through an European Portal of care workers³ to give more visibility to the project and involve people interested (stakeholders, carer, family, elderly...). Then it was designed a specific digital competence framework for careworkers in the domiciliary care sector (Valenta & al., 2013) and it was translated into a *blended mobile learning programme* for the domiciliary care sector (Warburton & al., 2014). Learn-

¹ <http://www.carerplus.eu/content/european-project-carer-launched-develop-care-workers-digital-competences>.

² <http://www.carerplus.eu/content/objectives>.

³ <http://www.carerplus.eu/>.

ing materials were tested through a piloting to better understand if the structure was adequate for carer and care-recipient. This has enabled us to develop a digital competence toolkit.

One of the challenges was to integrate digital key competences with specific competences of care and health. The main idea was to propose an useful curriculum to improve the professionalism of carer towards *Carer+* and to give the opportunity to learn new skills and, therefore, to obtain a better quality of life and care of the elderly and the carer.

The target groups were domiciliary careworkers/caregivers, care recipients and their families. For the first one's the objectives were: develop digital skills to improve their ability to relate and care; deliver better care at home with new digital tools; raise employability through increased communication and connection with other professionals and models of care. For the second group the objectives were: stay in home care for as long as possible, rather than institutional; support active ageing also with ICT; safer and more comfortable lifestyle in an assisted environment.

Learning together: caregivers and elderly people “struggling” with technology

The University of Macerata was involved, under the coordination of King's College of London, to develop some learning materials for carers and we want to emphasize our pedagogical approach. The idea was to design different learning modules in which, first of all, carer can understand and use technology tools to help the care recipient. Then, carers can provide this new knowledge to the elderly, becoming like a “*mediator*” between ICT and everyday life of elderly people. We wrote course 4, focuses on promoting independent and assisted living, and course 5, focuses on providing social care with ICT in an inclusion perspective.

For our research group was very important understand that we are working about a cooperative learning ambient, because all the modules involved carer and care recipient together. So, it was essential to thinking about carer as a facilitator with the elderly and to realize that the ICT “can improve the quality of life of people ageing at home and their integration into older people lives stands in the available human resources represented by the care working

sector and the competences they possess. They represent a critical component in any attempt to drive forward the agenda of improving the self-reliance and the quality of life of the ageing population”⁴.

The learning architecture of Carer+ has oriented all the activities and, while we were implementing the courses, it was really important to define which learners they are addressed to. We chose: a modular structure to help the carer in the learning pathway; a power point format because it is very helpful to lead the carer step by step into the training contents, so he/she can see it every time he/she needs and he/she can also print it in order to better study its contents; a synthetic map of the training contents to support the study of the carer by relying on his/her visual memory; the practical activities because the carer needs, to concretely learn, exercise and to be confident with the learning contents and with the use of ICT.

Every module has this modular structure:

1. A power point presentation to introduce which is the problem and the training contents:
 - a. *Slides 1 and 2*: introduction of the problem to be solved – This is always preceded by a cartoon in which the carer and the older person are represented in different ways: gender, ethnic, with family..., in an interactive way. We wanted to combine images and short text to clarify the purpose of the course and to help every subject (of the homecare) to better understand the reality. Presenting truthful situations helps to make the best and coherent hypothesis about the future use of the technologies with elderly people. The circumstances represented are familiar to the carer and have been designed to describe a variety of experiences in an intuitive way. The situations of daily life of homecare are summarized in two vignettes that show how technologies can support the carer and the elderly.
 - b. *Slides 3 and 4*: training aims – The training aims are always numbered. All the slides show the number correspondent to the specific aim they are related. This makes it easier to understand the point of the training you are, even when you should stop.
 - c. *Following slides*: training contents are articulated in chapters coherent with the training aims – So it is possible to follow the course step by step and gradually understand the contents.
 - d. *Last slide*: reminder for activities and final test necessary to obtain the badge of the final course – At the end of every module, a reminder is provided in order to remind to the carer that he/she will has to stand

⁴ <http://www.carerplus.eu/content/european-project-carer-launched-develop-care-workers-digital-competences>.

the final test to obtain the related badge. The badge certifies learning and lets you know which modules are successfully overcome, such modules require further study and which modules are still to be incurred in order to achieve the final badge of *Carer+*.

2. A synthetic map of the training contents – The map represents graphically the specific training course, the topics covered, the key concepts and skills that you will learn. The aim is to clarify the learning’s architecture, so the carer feels more oriented and understands his/her goal.
3. Activities – The activities correspond to the topics discussed in the presentation and they are strictly linked with real situations, related to the dimension of care, and enable carers to experiment and evaluate their learning. Many activities have been planned to be replicated with the elderly, in a cooperative learning, while others are useful to carers for developing their care work (evaluation test of the situation/autonomies; tables of time management, tools of work organization...).

The language used in all the PPTs is direct and informal to facilitate the carer – The use of an informal language is useful for build “friendly” and interactive tools and virtual spaces. Even for many carer, in fact, the use of technologies could be an innovation.

The importance of encouraging spaces of trust and mediation

Starting from the construction of the learning materials for the *Carer+* project, we want to highlight *the importance of the spaces of trust triggered by the use of new technologies*. The aim, as already mentioned, is improving the quality of life in Long Term Care at home and in this perspective there are many other variables to consider.

With particular reference to the home care in Italy, there are a lot of caregivers (family members) and/or care workers that support and share the care of the elderly (Deluigi, 2014). We usually called the care workers “*badanti*”, but they do not have a real professional status and they remain on the margins of the labor market, sometimes even falling into the grey-black economy, with a lack of social recognition (Baratella, Tecchio, 2004).

They are mostly migrant women from Eastern Europe (Da Roit, Facchini, 2010; Vietti, 2012) who leave their families and carry out, even for long periods, assistance to the Italian elderly, guaranteeing them a continuous presence at their home (Ehrenreich, Hochschild, 2004). The lack of qualification and recognition often forces carers to become professionals *on the job* (Sgritta, 2009), dealing with every family peculiarities, cultural differences, ill-defined expectations, multi-tasking roles and not pre-determined performing tasks.

In this heterogeneous context the *Carer+* project proposed a highly innovative path in Italy, as it was not included in a training process already fixed, and it was an opportunity of organized and formalized training for carers. The building of trust, therefore, began when the caregivers were approached and the trainers engaged a dialogue with the families and the elderly who decided to participate. The piloting was conducted by the IRS (Institute of Social Research) in Bologna, in the municipality of Casalecchio di Reno. The families involved received the tablet (one for caregiver and one for the care recipient) to work with and the carers started the blended course (face to face and on line) designed for them.

The structure of the modules, the type of language, the topics covered, the tools used and the badges earned were aimed at creating a space for interactive learning. This happened also thanks to face-to-face learning sessions in which expert trainers joined the carers who, at a later time, also with the help of family members of the care recipient, taught the elderly some technological skills.

The training implemented during the *Carer+* project was accepted and carried out by creating spaces of trust in which to develop mutual relationships (with trainers and between peers) and support continuous learning (in a professional way). This process has involved experts, consultants, trainers, carers, senior citizens, families and stakeholders. All subjects of home care have played a key role in the piloting phase: their feedback, their perplexities, their successes and their suggestions have enriched the experience.

The use of technology has been mediated by the carer who had a role of facilitator with the elderly. It was necessary a good relationship carer-care recipient, already established and it was helpful the availability of the context to get involved and to cooperate. The educative and social network has developed new relationship spaces and planning skills for everyone involved and it is crucial to note that the bonds of trust have been built before the use of technologies, that the elderly might feel like “threatening”, and continue to develop, on different levels, through the support to the use of technologies by the carer to the elderly.

Only through authentic relationships we can build trust environments in which to experiment together, try new experiences, to test themselves in a encouraging atmosphere. We can, therefore, emphasize the importance of the reciprocity between trust and mediation; they were fundamental elements in *Carer+* to enhance the process of improving the quality of life of the elderly and the carer.

Waiting for the final report of the project, in the Italian case, we can argue that the discovery and use of technologies has generated greater wellbeing also for the carer (non only for the elderly). In many cases, reciprocity and

exchange of expertise has consolidated couple carer-care recipient and allowed a closer approach. This will deepen their knowledge and create a common ground on which to establish relationships in everyday care. Interconnect, narrate and share your own life stories is a form of self-care and caring for others (Demetrio, 1998; 2012; Deluigi, 2014b) and lets not overlook the different identities present in the relationship of care.

Online connections and networking in the social context

There are additional spaces of trust that you can construct and expand in the dyad carer-elderly, also with technologies. We can highlight the relationships in the following areas:

- *The elderly family* – it is a context in which to develop greater intergenerational dialogue. Family members, especially the sons and grandsons of the elderly, may be involved in assisting him/her with technologies. It is a space in which develop also socialization, leisure and communication. At the same time, the caregiver's assistance (often alternating with the careworker) could be facilitated. Remote communication can become more direct (for example with Skype) and you can use different languages in cases of disability or loss of autonomy, allowing the elderly to achieve the highest level of expression and decision-making.
- *The carer family* – the carer, in the Italian case, it is often a migrant woman and, through the use of technology, can more easily create a bridge with the homeland, with the distance and with the “elsewhere” with an increased visibility. We think especially to the transnational families and children *left behind* (ADV, 2011). These kids could become unaccompanied minors, at great risk in daily life and in their future projects. Technologies can not replace the presence and direct parental relationship, but they can, at least, restore greater daily interaction.
- In this regard, we refer to the ongoing project “*Te iubeste mama - Mommy loves you*”, (<http://teiubestemama.it/>) that enables Skype communication between Italy and Romania, thanks to a joint connection between libraries of different cities. The “smart, light and cheap” technologies get, therefore, at the service of the distance relationships as a possible stable connection, supporting not only the relationship of care carer-elderly, but also the parental relationship which is too often forgotten.

The living context of the caregiver and the elderly – Technologies can facilitate connection with the local environment, preventing the isolation and the exclusion of the elderly, especially if there is a high level of disability or poor mobility, and of the carer too, by promoting communication with the social-health

services, and encouraging friendly relationships and more possibilities for exchange. These are all aspects that affect the life of the elderly but also that of careworkers who often do an unrecognized and not formalized work.

The caregiver and careworker presence reveals and makes up for the low presence of institutions and describes personalized and special care trajectories (Degiuli, 2007), related to the everyday life, often consisting of twenty-four hours at the assisted person's home, where they create inevitable interdependence ties. This also influences the caregivers social life and relationships that is already undermined by the distance and it is likely to live in a condition of isolation, completely focused on the task of care. The risk of becoming an invisible subject is very high. To have formal occasions or informal meeting with other people (usually) in their own day off, can become a emotional and personal support, a stimulus to lifelong learning and provides mutual relations and solidarity. In our case, the training program for caregivers was an important opportunity for knowledge and dialogue between carers who are working in the same territory and they can build networks of exchange, relationship and sharing.

In *Carer +* project, the role of training and the construction of *ad hoc* materials, which are really enjoyable, it was essential to create *official spaces for continuous learning, relationships and peer interactions*. The promotion of meeting places, in a *cooperation approach*, will generate additional connections with families towards technologies and new communication channels.

Technologies can support active ageing and improve the quality of life moving towards the development of local communities and the creation of networking, promoting learning opportunities related to ICT, in a perspective of life-long and life-wide learning (European Commission, JRC, 2008).

The technological literacy can support, if properly mediated, communication and interpersonal skills, creating, in a continuous crossbreeding between real-virtual, *spaces of proximity*. The role of mediation is essential, because it develops different aspects of trust.

It is necessary, therefore, that those who assume this role are aware and have the skills to optimally perform this function. In this way, the quality of care work will improve and generate greater well-being for the elderly and her/his family and for the caregiver and her/his family, opening up more to the interactions with the contexts and places of life of both.

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Online Collaborative Learning. Pedagogical Design in the Mediational Artifacts¹

L. Guerra, L. Ferrari, A. Reggiani, University of Bologna

Abstract

The idea to apply collaborative learning strategies widely experimented in face-to-face educational setting, lead researchers to think a possible transposition *mutatis mutandis* also in online social environment (Delfino et al, 2006). Looking at some of the existing pedagogical planners none of them are specifically intended to support the design of online collaborative learning activities (Pozzi, Persico, 2006). In this paper we present a pedagogical reflection between two educational experiences of Online Role Play (ORP) carried out in the university context through the use of different mediational tools. In the first experience, the teacher has a specific software that manages the online cooperative learning, a “management” software ad hoc created to guide the teacher in the development of Online Collaborative Learning Path. In second experience the teacher has a plurality of tools by which he/she can (potentially) put on online cooperative learning activities.

Keywords

Online role play; CSCL; pedagogical planners.

Authors' presentation

Luigi Guerra is Full Professor of Education and Technology at Department of Education Sciences (EDU) University of Bologna, Director of the EDU Department since 2012 and Faculty Dean from 2006 to 2012. He coordinates several international projects funded by EU. Since 2009, project manager for the international cooperation project – “Scuola inclusiva in El Salvador”.

Luca Ferrari is PhD student at Department of Education Sciences, University of Bologna. He has been involved in several national and European research projects,

¹ This contribution, fully shared by the three authors, was drawn up as follows: paragraphs “Introduction” and “Conclusion” by Luigi Guerra; paragraphs “Which collaboration scripts?” and “Considerations about the ORP didactic experiences” by Luca Ferrari; paragraphs “Understanding the cooperative dynamics” and “Critical issues” by Andrea Reggiani.

among which Learning4All and Classi 2.0, on relevant uses of technology in education. Research interests: relationships between new technology and learning, with a special focus on inclusive education.

Andrea Reggiani was formerly a member of the E-Learning Center - CELA staff at University of Bologna, he's working for MELA at EDU. He contributed to projects related to distance learning, for Symposium Consortium, Sinform Consortium and inter-university consortium CINECA. He is contributing to the SELF, the e-learning system for Public Administration in Emilia Romagna Region.

Introduction

Computer Supported Cooperative Learning (CSCL) is a pedagogical approach where learning is achieved through the social interaction mediated by a computer or internet. This type of learning is characterized by the sharing and knowledge building among participants using technology as primary tools of communication or as a common resource. In other words, the CSCL focuses on how collaborative learning, supported by technology, can improve peer interaction and teamwork, and how collaboration and technology can facilitate the sharing and distribution of knowledge and skills among the members of a community (Lipponen, 2002). According to Stahl (2006) an adequate theoretical framework of CSCL should point out how individual practices are social without forgetting that the social element is “embedded” in the individual activities. Koschmann (2002) underlined that CSCL includes the study of the ways in which these practices are mediated through designed artifacts, software created to support cooperative learning, which operate as mediating artifacts.

This article attempts to enter in the theoretical/operative debate linked to the need of supporting teachers, through tools that we define Pedagogical Planners, during the planning and management of learning paths related to online cooperative learning. Evidently, in the context of studies on CSCL, it seems rather lacking the category of pedagogical planner specifically addressed to support the planning process of online collaborative learning activities. To reduce this gap, some authors (Pozzi, Persico, 2013) underline the need to develop tools - defined CSCL pedagogical planner - able to combine in the same “environment” both the conceptual component (or methodological) and the technological one. Both components should be designed to support the process of designing online collaborative learning activities.

In this regard, in the “teaching practice”, we can find two different situations that we call scenario “A” and “B”. In scenario “A” the teacher has a specific software that manages the online cooperative learning, a

“management” software ad hoc created to guide the teacher in the development of Online Collaborative Learning Path. In scenario “B”, the teacher has a plurality of tools by which he/she can (potentially) put on online cooperative learning activities (i.e. eLearning platforms, synchronous or asynchronous tools such as forums, chat, wikis, blogs, videoconferencing tools, etc.). In this second situation, the teacher’s task is more complex than in the first scenario. In this case the teacher’s task not only concerns the choice of tools of social mediation, but almost the setting up and managing of virtual environment where the cooperative learning activities take place.

The article shows a reflection between two educational experiences of Online Role Play (ORP) - which reflect scenarios “A” and “B” - carried out in the university context. In particular, scenario “A” corresponds with a cooperative learning experience supported by the C@vir environment that is a software prototype placed in the framework of the theoretical currents related to Computer Supported Cooperative Learning (CSCL). In this direction, C@vir promotes, through a series of simulated activities (including the online role play) social interaction and the creation of cooperative activities with the support of web and social software. The second scenario corresponds to a cooperative learning experience supported by the MOODLE environment, an acronym for “modular object-oriented dynamic learning environment), a learning management system, or virtual learning environment. The platform is rather functional for eLearning projects in University, Corporate training, School and Other sectors. The Table 1 synthetizes the macro-characteristics of both experiences:

Table 1. Macro comparative variables

Variables	Scenario “A”	Scenario “B”
<i>Target</i>	CdL Social and Cultural Educator	CdL Life Long Learning
<i>Type of learning paths</i>	Laboratory of Informatic for Education	Course module “Didactic strategy in adult communication”
<i>Number of participants (total)</i>	32	12
<i>Number of components for groups</i>	8	8
<i>Format</i>	Blended Learning	Blended Learning

<i>Expected result</i>	- Storyboard to design Learning Object (LO) - Learning Object development with eXeLearning authoring tools	- Storyboard to design Learning Object (LO)
<i>Roles</i>	Coordinator, assistant, critical friend, noddly, outsider, creative, facilitator, observant	Coordinator, assistant, critical friend, noddly, outsider, creative, facilitator, observant
<i>Type of activity</i>	Online Role Play on "content driven"	Online Role Play on "content driven"
<i>Virtual Enviroment to sustain the interaction and communication</i>	ClasseViva Platform (virtual environment ideated and structured to sustain online role play activity)	Moodle platform (semi-structured environment ideated to sustain the online course delivery)
<i>Tools to sustain communication and learning process</i>	General and thematic forum	General and thematic forum
<i>Tools to download and share the "learning products"</i>	Repository	Repository
<i>Duration</i>	18 h	30 h

Which collaboration scripts?

In addition to the variables outlined in Table 1, there are other important factors considered in the design of the two educational experiences of ORP. It should be noted, for example, that the free cooperation does not produce systematic learning. According to Dillemburg (2002), in fact, one of the ways to increase the effectiveness of collaborative learning is to design the interactions involving students in well-structured script. The effectiveness of collaborative learning may depend on different conditions including the group's composition, the tasks previewed and the media to support communication. A script is, in other words, a story or a scenario where students and tutors have to play as actors in a script. In the planning phase of

OCL activities, we decided to take some of the predominant functions of cooperative learning identifying for each of them possible “models” of collaboration scripts.

Table 2 links each function (aggregate, support, reflect, etc.) with one or more script/s.

Table 2. Prevalent functions of OCL

Prevalent functions of the Online Cooperative-Collaborative Learning		
(1)	(2)	(3)
Aggregate the group	Support learning into and between the group	Stimulate/reflect into and between the group
Script “model”		
<p>Script 1. Online role-play on “content driven”</p> <p>Script 2. Peer to peer learning on “structured assignment”</p>	<p>Script 3. Group investigation</p> <p>Script 4. Cooperative Webquest</p>	<p>Script 5. Jigsaw</p> <p>Script 6. Guided Strategic Problem Solving (GSPS)</p>

The script tested in the two experiences is the online role-play on “content driven”. The main features of this script are based on the role-playing in the online environment and the allocation of a specific activity that lead to a cooperative development of common “learning product”, such as a digital story tale, a text, a map or a Learning Object (LO) as in our case. The script models are below reported.

Phase 1. Explanation of the assignment and definition of tools to sustain the interaction

The teacher shows to all members the activity that they have to do and the learning objectives to achieve. For example “at the end of this activity, each group, after an interaction session in the forum, has the task to produce a Learning Object (free topics) and to upload it in the online repository. Each LO should take in account the pedagogical features identified in the article “The didactic development of Learning Objects” (Guerra, 2006). Thus, each

group's member, based on the role assigned to him/her, should interact with other members trying to simulate the "characteristics" of the profile assigned. At this stage, the teacher specifies, in addition to the tasks, the time to achieve the learning assignment.

Phase 2. Individual study

To every group's member are assigned the same articles and further complementary resources. In our example, each member has to study the article "The didactic development of Learning Objects", that they have to memorize and repeat the key concepts introduced in the mentioned reading.

Phase 3. Role distribution and group's creation

To every group's member is given a role (randomly or select by teacher) that he/she plays during a specific phase or activity. The teacher defines, in relation to the characteristics of the activity, the number of components per group. For each task, however, we could figure out a rotation of roles between the different all the members, thus, the simulation of different roles for stage and/or activities.

Phase 4. Online Role Play

In this phase, each member tries to play the role assigned through peer-to-peer online discussions. In relation to the type of roles defined by the teacher in the design phase, the objective of this simulation can allow the teacher to monitor, at the same time, both the process of discussion (conflict, etc.) and the product advancement. Broths aspect should be considered and evaluated by the teacher during and after the online role play activity.

Phase 5. Creation of learning artefacts

In this phase, the groups are involved in the creation of the expected learning artifact (LA). The different working groups are in parallel engaged in the implementation of the LA (following the script assigned). The coordinator defines in detail the tasks to be achieved by each member. Every component, keeping in mind the characteristics of the role assigned, contributes in developing a small "piece" of the final product (the work of a specific sub-topic, the text review, the selection of images and multimedia contents, the preparation proof of assessment etc.).

Phase 6. Presentation and evaluation

Last phase is dedicated to the presentation of the work and the final evaluation. Each group in alternative (in the presence) represents the processes (discussion, comparison, collaboration, conflict etc.) that led to the creation of the "expected" product. The teacher, once identified the indicators related to the specific activity (and once analysed the processes and materials produced), can effectively evaluate both the quality of the processes activated both the quality of the final product.

Considerations on the ORP didactic experiences

At the end of these educational experiences the research group administered in December 2014 a survey aimed to explore in terms of quantity (Likert scale with values ranging from 1-4) and quality (free comments) the level of satisfaction and impact of the Online Role Play activities. The survey is composed by eighteen questions organized in the following three areas.

AREA 1. Effectiveness of teaching-learning experience

1. Please, indicate to what extent the objectives of the activities were clearly described;
2. Please, indicate to what extent the timing of the activities were clearly described;
3. Please, indicate to what extent the roles were clearly described;
4. Please, indicate the level of satisfaction related to this experience of teaching and learning;
5. Please, indicate the effectiveness of the online role play respect to this learning experience;
6. Please, indicate the effectiveness of the online role play compared to a “traditional” face-to-face teaching-learning experience;
7. Please, indicate considering the online role-play activity, the level of collaboration between peers;
8. Please, indicate the level of conflict between peers;
9. Please, indicate the level of discussion between peers.

AREA 2. Strengths, weaknesses and suggestions

10. Describe the strengths of the learning experience;
11. Describe the weaknesses of the learning experience;
12. Please, indicate to what extent you were able to “step into the shoes” of the role assigned;
13. Describe any difficulties with respect to the role simulated;
14. Describe the strengths of the environment that hosted the simulation (C@vir - Moodle);

15. Describe the weaknesses of the environment that hosted the simulation (C@vir - Moodle);
16. Please, outline any suggestions to improve the environment (C@vir - Moodle).

AREA 3. Reproducibility of the learning experience

17. Please, indicate to what extent this kind of experience (online role-play) could be effectively adopted in the school environment;
18. Please, indicate to what extent this kind of experience (online role-play) could be effectively implemented in the university environment.

In the following pages, we present the main results of the questionnaire. We take into account some general aspects related to items, which aim to detect the perceived level of satisfaction and the effectiveness, in terms of learning, of the ORP experience. The values picked up in these areas of the survey show a very high degree of satisfaction, by the majority of the respondents, in both experiences. All this in terms of increased effectiveness of the online role play compared with a “traditional” teaching, and in terms of quality of work process activated by the peers to achieve the expected product (a template to design the learning object on one side; the creation of a learning object on the other one). The participants’ answers continue to be homogeneous between the two experiences, even in the sections of the questionnaire related to the strengths and weaknesses. Among the strengths, the majority of respondents highlighted the didactic effectiveness of “role play” experienced in the two environments ClasseViva-C@vir and Moodle. On the qualitative side, we report some words of the participants:

- “...through the simulation we have increased our awareness of what it means being a coordinator, the person who manages the group’s member.”
- “...the interactive way of teaching-learning, the difference from the usual face-to-face lesson”.
- “...I was able to simulate the role, so I experienced it in terms of problems and difficulties.”
- “...the direct experience of what eLearning and Learning Objects means, [...]. In conclusion, I can say that I learned more than a “traditional” teaching and learning path.
- “...I positively experienced the constrains of the interaction and communication in online environments”

As regards the section dedicated to the weaknesses, the respondents identified some critical aspects in terms of organizational (timing not clearly defined, online work) technical (difficulty to use some tools available in

online environments) and simulative nature of the learning experiences (difficulty, in some cases, to maintain the assigned roles).

Although the overall results of the survey show clear elements of homogeneity between the two experiences, the section of the “strengthens” of the virtual environments underline some relevant differences that are confirmed by the scientific literature on the CSCL Pedagogical Planners. Generally, the environment ClasseViva-C@vir has been perceived as “a very innovative portal, which [...] should be used at all schools levels”, or “a well-organized platform in which my colleagues and I have been able to discuss”, and “a functional workspace simply integrable with online social networks.” In particular, using a specific tool to sustain the simulation activities through the implementation of collaborative script is a determining factor for effective learning and teaching process. This factor can positively affect not only on the learners side, but also on the teacher one. Evidently, in this context, ClasseViva-Cavir has been perceived as an environment easier and more effective than Moodle to support the design and manage online role play experiences. In addition, the reflections matured from the analysis of two scenarios lead the authors of this paper to formalize a set of further variables and organizational suggestions that we should pay attention to set up and manage learning paths based on online role play (Table 4).

Table 4. Variables and organizational hints

Variables	Suggestions
<i>Timing</i>	Timing and objectives should be explained and described with the help of taxonomic matrix. Each participant should have the opportunity to understand at what point / stage of his/her work is situated, and what are the expected results during or after a specific activity.
<i>Objectives</i>	
<i>Structured scripts (collaboration script) Vs. free collaboration</i>	A greater structuring of collaborative activities, could allow the user to develop an increased awareness both to the phase/topics in which he/she is situated, and to the tasks to be achieved.
<i>Blended approach</i>	When possible alternate moments of work in the presence and distance. The alternation could allow the adoption integrated and diverse teaching strategies that can be implemented both in virtual and in real setting.
<i>Presence/Absence of an external group moderator</i>	Specify if the role play activities are/are not sustained by an external moderator.

Variables	Suggestions
<i>Number of components</i>	Specify the number of component for groups. To make effective the online role play activity we suggest to aggregate 4-5 persons per group. However, if the teacher intends to identify larger working groups is important to be able to balance the level of responsibility of each role (without creating asymmetrical situations in terms of involvement in the activities).
<i>Randomization and/or group's aggregation for interests</i>	Clarify the criteria of selection and the role distribution. Specify what kind of procedure you follow. Randomized procedure? Free choice of participants? Or by teacher?
<i>Exemplification of the role-play roles</i>	Explain the characteristics and the prevalent functions of each role
<i>Roles rotation for phases or topics</i>	Explain if the role play activity considers/not considers the role rotation during the fulfilment of the different phases or topics.
<i>Effectiveness of the tools to support interaction / dialogue between different tools to support the communication</i>	Evaluate the functioning of the tools to support interaction and group discussions. Check the forms of integration or compatibility between tools to support the processes and products of learning outcomes (repository, wikis, social networking sites, forums, bulletin board, etc.).
<i>Monitoring and evaluation</i>	Explicit methods, tools and times related to the phases of monitoring and evaluation (individual or group).

Understanding the cooperative dynamics

In scenario B, as already mentioned in the paper's introduction, it was decided to establish and convey an Online Collaborative Learning experience using the tools integrated in Moodle, an open source learning management system.

Moodle was chosen because, before other LMS, was able to adopt and develop a constructivist approach to learning in an online environment, encouraging the presence of many instructional strategies in the teaching/learning processes. Moreover, compared to other LMS, Moodle developed a variety of advanced features to create, publish and update learning contents ("the resources") and to design structured collaborative sessions ("the activities"), useful for stimulating interaction processes between participants and the evaluation of learning.

The tools used to generate and deliver collaborative session, placed in a specific course Topic of Moodle entitled "Group activities" (Figure 2), were made up of:

1. some slides presented in the classroom together with the characteristics of the activity
2. One activity "Choice group" (plug- in) to allow students to enrol themselves to one of the two working groups
3. One activity "Discussion Forum intergroup"
4. One activity "Discussion Forum" with restricted access to the members of one or the other group
5. two activities "Assignment" for submitting a working group project
6. three examples of Learning Objects

Figure 2. Section “group’s activity” in the Moodle course



The teacher had to perform a careful monitoring and quick corrective action for the management of working groups in the scenario “B” since the start of the activities. Many critical issues affected seriously the performance of the group, in the activities carried out by the teacher and by the students: among them we can identify some organizational, some more technical, and some purely educational issues. The dropping out of working group and the consequent relocation of roles were among the main organizational issues.

Critical issues

Drop-out

The presence of Erasmus exchange students in the course, initially hailed by the participants as an added value, turned out a battleground inside each group in the first weeks. A battleground that, day after day, because of the required effort for participating in the activities, took to the dropping out even of some non-Erasmus students, although all students formally undertook to complete the work of the group (all students were adequately informed in classroom of the characteristics of activity where they were involved).

In agreement with students, two weeks after the starting the activity, the composition and the final allocation of roles of the members of the groups

were defined once again. From the second week, in order to prevent further hurdles to the development of the activity, any spotted drop-out caused the elimination of the role from the group as a matter of course.

The main cause of dropping out for some Erasmus students was the low level of knowledge of the Italian written language. Although the teachers gave in advance undemanding or marginal roles to students with manifest gaps in oral and/ or written Italian language, some Erasmus students still preferred to drop out the activity. Other native Italians students dropped out the activity, because they were not able to guarantee the required level of participation.

The reallocation of roles among group members

The members of each group cooperated for the management of dropping out and the consequent reallocation of the roles for the newcomers or for the participants that had to change/cover main roles; it was necessary to reallocate roles with members, in order to cover key roles as the “leader” or the “Secretary”. During this first phase, the teacher had to perform a careful monitoring of topics and posts submitted by students on the discussion forum, so to limit drop-outs and to identify newcomers and/or reassign roles. Students and teacher experienced also some technical problems in the monitoring activities, such as the viewing and reporting of topics/posts in the discussion forum, and the lack of an easy collaborative writing tool.

Threads and posts in discussion forums

The discussion forum is one of the most flexible and better tool integrated in Moodle platform. The “Standard for general use” forum allowed students to open freely threads, reply to messages, and attach files. The forum proved to be a real user-friendly tool that promoted and encouraged exchange opinions among participants.

A main issue came up in the topics and the posts: most cases Students (although regularly trained, instead of using the button “Reply with a Post” in a topic, opened a new thread, interrupting the flow of meaning and necessarily articulating it in more different threads, creating thus confusion to participants and teacher.

To solve this problem, the teacher could appoint one member of the working group as “moderator”, allowing him/her to manage and reorder threads (topics and posts) according to a thread or logical discussions in complete autonomy. This feature in this experiment was not put into practice, because implied a technical customization of roles.

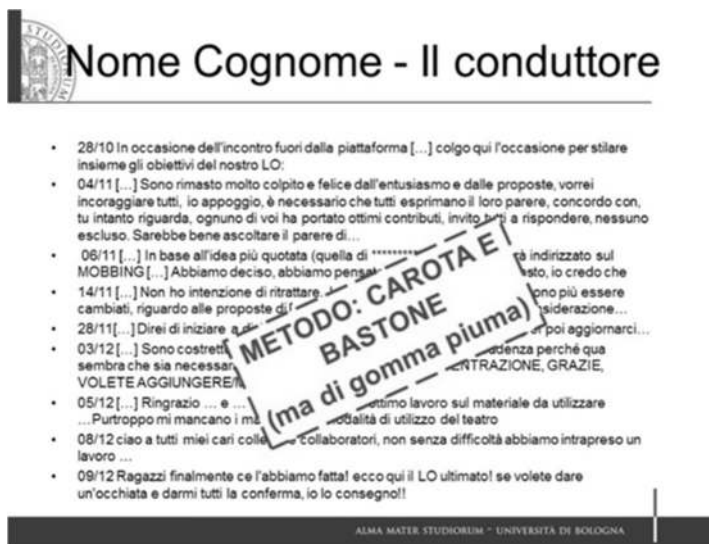
The automation of many platform tools allowed the teacher to generate a participation report for each discussion forum (topics and posts written by

each student), and the statistics report, that displayed graphically the amount of topics/posts and views in a defined span of time. These data, although purely quantitative, are very important for understanding the liveliness of a working group and of its members. The “complete report”, showing in a single screen and in chronological order all posts made by a student, was one of the most interesting feature.

The main issue concerning technical aspects of the platform was the lack of a simple collaborative content editing tool. The Wiki integrated in Moodle is a good quality tool but still improvable about usability; for this reason, the monitoring of the progress of the final paper was made uploading updated versions of the paper as attachments to messages in the discussion forum.

From the educational point of view, the identification of the quantity and quality of the individual contributions and the adherence to the final project interpretation of the roles were facilitated using the forum as main discussion site / repository of activities. The teacher, thanks to the contributions of the attachments in each individual post, was able to track in a clearly way all those processes that normally remain hidden in the activities of group work carried out “at distance” or not mediated by online applications.

Figure 3. Feedback from participants



This clear tracking of the processes allowed students to get an accurate reconstruction of the whole social life of the group, shown in a chronological order for each role: the issues, the dropped or carried out decisions and activities. An accurate feedback in fact, was produced for each “contributor”

Figure 3); in a final evaluation process, this feedback returned a meta-synthesis of the highlights (topics, posts, documents) that influenced the performance of activities.

The final reconstruction, organized by role, allowed students to re-experience the group work from an objective point of view: the point of view of the observer, that allows to understand in detail the inner dynamics of the working group and the compliance with the interpretation of the performed role.

Conclusions

The main cooperative and collaborative dynamics related to the simulations and role-playing, as consolidated tools to accompanying the world of the education and training, began to represent an effective and engaging learning opportunities both in the school and in the university context. The role play has shown an high level of reproducibility and transferability into the web thanks to CSCL.

Surely, beside the “effective” and “engaging” adjectives it is necessary to introduce, at least in the CSCL experiences, an important element of reflections: the sustainability. The concept of sustainability, applied to an educational experience carry out within an intentional formative institution is, now more than ever, a key element to be carefully explored in two main dimensions. The teaching-organizational (see the variables that we have table 4) and the technological dimensions (intended as the capacity to take appropriate decisions with the situation in which teacher operates both in terms of technical know-how and infrastructure in terms of hardware and software available).

The reflection emerged in this paper underlines, on one side, that the effectiveness promoted by the teamwork and the involvement recorded by students in CSCL activities is widely confirmed. On the other, that the performance indicators (relevant to understand the relationship arising the costs incurred by teachers to organize, manage and evaluate the activities of the students in relation to the expected results) are usually elements little explored. Those elements are strictly connected not only with variables such as the teaching architecture, with the number of participants etc., but also with the technical sophistication of the mediational tools used to deliver the CSCL didactic experience.

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Elements of the Mediascape as the Medium and Agents of Socialization and Education: Realities, Where we Live in

M. Czerepaniak-Walczak, University of Szczecin

Abstract

The main aim of this text is to present the idea, structure and potential of mediascape. Its dynamic changes, both in the material and symbolic dimensions cause new situations for social processes such as learning/teaching as well as socialization. Thus, at the beginning is presented of concept of mediascape as a milieu of everyday human life. Then is an analyze of the structure of mediascape with an offer of the conceptual framework for educational purpose. The mediascape is conceptualized as the two dimensional sphere namely: horizontal and vertical dimensions. According to that concept, the horizontal dimension is filled by material elements like computers, tablets, smartphones and others. The vertical dimension is filled by symbolic elements such as values, concepts of truth, beauty, and so on Both of them play an important role in processes of education and socialization. The last part of text contains the discussion of new concept of three “R” and three realities, where processes socialization and education are in.

Keywords

Mediascape; digital media; lifeworld; education; socialization.

Authors’ presentation

M. Czerepaniak-Walczak is professor of humanistic sciences in the discipline of general and social pedagogy. She is a chair of General Pedagogy at the Institute of Pedagogy at the University of Szczecin. Her main field of interest is critical and emancipator pedagogy, She is an author of many articles and books on that topic. Conducts seminars on the following issues: 1) Critical Consciousness and conditions of its formation, 2) Concepts, categories, and metaphors in pedagogy. 3) The concept of the university and some of its consequences for training teachers: Since 2006 she is a vicepresident of Committee on Pedagogical Sciences of the Polish Academy of Sciences and since 2014 – vicepresident of Polish Educational Research Association.

Introduction

We all live, as never before, in the multidimensional reality, or rather in many simultaneous realities. Our activity is not linear anymore. We have to cope with many tasks at the same time as well as to understand a lot of information and adapt them to the everyday situation. It creates new conditions of socialization and learning. It is also a source of reflections and questions that arise in the context of the contemporary education which takes place in such conditions. Every day, even in every single minute, people have an access to the newest news, an opportunity to take a part in some action, express their own attitude pro- and/or contra. As an example, according to statistics presented by You Tube press “over 6 billion hours of video are watched each month on YouTube—that’s almost an hour for every person on Earth, 100 hours of video are uploaded to YouTube every minute (<https://www.youtube.com/yt/press/statistics.html>, [01/12/2014]). Thus, no wonder that the mediascape overwhelms also everyday life at classrooms, schools and extraschool education. This overview is done from the perspective of critical pedagogy. Its aim is to reveal at least some of the mechanisms of oppression and restrictions experienced by individual and collective actors under dynamically changing mediascape and the formation/support of totalitarianism, as well as searching for the factors that contribute to personal and social emancipation. It is possible that much of the given data, and many of the questions raised on the basis of these data will be outdated in the moment of this paper’s publication.

A few words about mediascape

First of all it is need to define the notion of “mediascape”. The concept of “scape” coined by Arjun Appadurai (Appadurai, 1990), who writes that: “I use terms with the common suffix *scape* to indicate first of all that these are not objectively given relations which look the same from every angle of vision, but rather that they are deeply perspectival constructs, inflected very much by the historical, linguistic and political situatedness of different sorts of actors: nation-states, multinationals, diasporic communities, as well as sub-national groupings and movements (whether religious, political or economic), and even intimate face-to-face groups, such as villages, neighborhoods and families.” (*Ibidem*).

One can put the question about the relationship of education with the various dimensions of personal and collective functioning, about the position of

education in five contemporary “scapes” distinguished by Appadurai: ideological, financial, technological, anthropological (ethnographic) and media. Education remains in close relationship with each of them. It means, that each of them imprints its presence in education, but it is still crucial to find the possibility of the mutual relationship of education and this pentagram: (ideology, economics, technology, local culture and global media), though declarations from the side of each of “scapes” about exceptional value of education. This paper does not contain the answer to that question, does not even contain proposals for this answer. It is only initiating a discussion on the potential synergy of these five “scapes” and education, both in its formal and informal character.

To move in such multidimensional landscape, one needs to be prepared for identifying and understanding its elements. From all these mentioned of landscapes let me to choose the latest, that is, the one that relatively recently become a source of everyday human experience. That is mediascape. It is clear that the functioning in this landscape brought about by the new media (mostly Internet) almost everything is new, never had seen before: social relationships, patterns of learning, searching advice in difficult situations and, of course, educational interactions. It creates new challenges for pedagogy and for educational sciences.

The structure of mediascape from the educational perspective

To discuss this issue first of all one needs to present the structure of mediascape which is a source of subjective experience. It is defined by Appadurai as a place and space, which “distributes the electronic capabilities to produce and disseminate information (newspapers, magazines, television stations, film production studios, etc.), which are available for a growing group of interested individuals and groups throughout the world, as well as images of the world created by these media” (*Ibidem*). In addition to traditional media: press, radio and television, mediascape is filled with digital media, the dynamics of which goes beyond any previous experience. They are a place for people to experience their own potential and patterns of social relations. Thus, this is a nowadays *lifeworld*. Immersion in this landscape allows the experience of being a member of the community(s), but also being someone separate, distinct, Other.

One can describe the mediascape in many ways. In this text it is described, according to my own idea for analyzed topic, in two dimensions, ie, vertical and horizontal. Each of these dimensions is composed by many elements

which are specific and characteristic for each of them. For the purpose of the analysis carried out in this presentation the mediascape is structured as follows:

- ✓ **horizontal dimension is filled with material elements**
- ✓ **vertical dimension is filled with symbolic elements**

While the **material elements** are easy to describe - they are subject to specific inventory both in terms of individual (what a person has), institutional (ICT resource of institutions) as well as global nature, the **symbolic and spiritual elements** are not so clear and even raise many problems with the recognition of their presence in the world of subjective life of individuals and groups. They also require special criticality and reflexivity in the context of education.

As the *milieu* and medium of socialization and education, it may in fact be a source of unpredictable, unexpected and unwanted experiences of individuals and groups.

Since the birth of the Internet, especially since it has been made available via telephone and radio modems and transmission capacity has increased so much that the network has started to compete with traditional media, especially the press, it has become a part of everyday life of individuals, families, institutions and organizations.

Hard drive capacity, processor speed, speed of internet connection, resolution of monitors, etc. - technical and technological changes occur in exponential time.

Continuous improvement of the material elements of the mediascape is a source of further breakthroughs in access to its symbolic elements.

Mediascape monopolizes the world of everyday life, structures time and experience of individuals and groups, affects education, its content and form, the science, areas of research and applications of their results, the quality of life, as well as participation in culture and society. In its perspective, it highlights the new forms of civic participation and value realization.

On the one hand, all of this makes mediascape an agent of liberation, but on the other hand, it shows its unprecedented dominance. Affirmative attitude towards the media, particularly digital media, obscures areas of oppression and threats of marginalization and exclusion.

The potential of the media in shaping the spirituality was a part of Joseph Ratzinger's (Benedict XVI) message for the 45th World Communications Day, (5th of June 2011):

In the digital age too, everyone is confronted by the need for authenticity and reflection. Besides, the dynamic inherent in the social networks demonstrates that a person

is always involved in what he or she communicates. When people exchange information, they are already sharing themselves, their view of the world, their hopes, and their ideals. It follows that there exists a Christian way of being present in the digital world: this takes the form of a communication which is honest and open, responsible and respectful of others (<https://cuorliber.wordpress.com/2011/03/18/45th-world-communications-day-pope-benedict-xvi> [27/11/2014]).

But, as Dubrawka Ugrešić, Croatian writer, wrote the media led to the situation, in which:

Stupidity has become a global phenomenon, more intrusive and visible than ever. Thanks to the media, the whole world follows the Kardashian family, while the information about the arrest of Justin Bieber for driving under the influence of drugs appears on the title pages of all the newspapers and TV news. Substituting relevant content with irrelevant one, the press, radio, television and the Internet are destroying cultural memory. (...) Most of the media is focused not so much on disinformation but on the trivialization of information. (2014).

Thus, all of this affects the socialization process as well as education. On one side it stimulates these processes, on the other - generates new challenges.

Education and socialization in three realities: real, virtual and augmented

Colloquially, the reality in which we live, as the world around us, is understood as a system of real, objectively existing things, facts, people and events with which the actor comes into direct interactions in real time using all the senses. It is possible to clearly determine, define its boundaries, its space-time. Such a reality can be called a real reality, possible to be experienced in a multisensory sense. However, it is not only socially constructed reality in which we live today.

Scientific and technological progress has broadened the spectrum of worlds, where people meet, interact with each other and with their natural and cultural conditions of everyday and festive life. "In the comfort of our homes all kinds of pictures changed by broadcasting satellite received by antennas protruding from the roofs of the old village houses (as well as fibre optics providing access to the Internet – M. Cz.-W.) can give us immediate and sometimes simultaneous picture of the events that are happening on the other side of the planet" (Augé, 2010,18). And this space - the world which is the source of subjective experience is the "virtual reality". This is a new

(besides the real reality) ability to act, to participate in relationships with people and things, extend the space of subjective experiences. Beside of that, some of us experience also in so-called “augmented” realities (Metz, 2012).

Realities, which are the place of human functioning are not parallel in the sense of Euclidean geometry. On the contrary. They intersect, sometimes complete, sometimes compensate, and sometimes they are a source of conflicting information and meanings. Certainly, they broaden the spectrum of human experience. However, this requires the preparation not only to live in each of these realities separately but to the simultaneous participation in all of them. Images of the world, which fill individual realities are assimilated by the actors participating in them. So it is clear that there is a need of education to “read” and understand the mediascape, its elements and structure.

Introducing learners in the mediascape, the implementation of the vision and understanding of the elements starts from getting familiar with the tools to move around in this landscape with the use of (I would call it) modern three “R” – **Reading, Writing and Arithmetic**, which means:

- “reading” the texts that fill this landscape,
- “writing” one’s own thoughts and emotions and marking one’s own presence in it, and
- “counting” and making logic operations, seeing cause-effect relationships between the elements of the landscape.

By realizing the importance of preparing a man to function in the mediascape, organizers of formal education have decided to formalize this preparation. Thus, the computer education is introduced to the formal curriculum. This subject of education has different names in different countries, and the implementation of content takes a variety of forms and is done using a variety of means. The center of attention is the introduction to the mediascape areas that are filled with material and symbolic elements of digital media. According to the data presented in the report “Key Data on Learning and Innovation through ICT AT School In Europe 2011” (10) in 2009 in most EU countries three quarters of pupils were taught in schools where there is one computer for use of four students. But, from my point of view, more disadvantageous to the introduction of learners into the mediascape is that “computers are still not readily accessible to students in the classroom, but are located in computer labs where they can only be used under a teacher’s supervision and during specific hours” (*Ibidem*, 12). This makes the educational interaction with the elements of the mediascape are detached from everyday life. This interferes with the process of socialization in this “scape”.

Conclusion

Mediascape is the unprecedented learning environment. It is not only a place of activity focused on individual learning and creating, but it also creates many opportunities for learning how to interact with them as well as in them. In everyday life we experience of unusual impact of electronic-information (digital information) on the common communication and imagination. This makes not only that we are under the influence of material and symbolic elements of the landscape of the media in real situations, but also our imagination as well as our projects to transform the reality and our own position in the world is under the influence of shape of such images. At the same time increasingly show up and more familiar becoming the mechanisms of power and oppression, limitations and exclusions.

Material elements of the media landscape become symbolic emblems of social position. Access to more devices, the ability to use them are new factors of social stratification. Restrictions on access to them are a source of deprivation for both the individual and social groups. Symbolic elements of the media landscape are on the one hand a agent of liberation, transgressionm but on the other hand a strong factor in the colonization of minds, enslaving, depriving independence of judgment, asking questions and seek innovative ways of solving the problems experienced.

All this make a quite extraordinary opportunities to move processes of socialization and learning in the mediascape from being something which focuses on the needs and agency of an earlier world, to one in which people at any age are active and engaged in preparing for their future in a rapidly changing world, with new challenges and opportunities. But, it also causes an extraordinary threats of enslavement in almost all of dimensions of individual and collective life in the age of supercomplexity in which the world is increasingly unknowable and unpredictable.

These properties of the mediascape makes it an attractive cognitively and significant axiological subject of pedagogy as a science of intentionally organized conditions for personal development and social change. However, there are also many risks for learning and education processes as well as for socialization.

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E-portfolio and Teacher Training. Building a Culture of Trust in School Contexts

Lorella Giannandrea, University of Macerata

Abstract

This paper presents some thoughts concerning the use of an ePortfolio in teacher training and aims to bring out the complexity and usefulness of this tool in order to promote meaningful and authentic teacher training expertise. The use of an ePortfolio as a tool for assessing teachers' expertise nevertheless evidences a number of critical issues that have been highlighted by the research, since many factors may affect its creation and, consequently, the assessment of the portfolio itself, such as cultural elements and the language and expressive skills of the teacher, author of the ePortfolio. Despite these criticisms, the ePortfolio appears to maintain a valid and fundamental importance in teacher training and shows how a culture of trust and mutual recognition represents the necessary substrate implementing personal and professional growth processes within the school.

Keywords

ePortfolios, trust, technology, teacher education, assessment, accreditation.

Authors' presentation

Lorella Giannandrea is an Assistant professor in Pedagogy at the University of Macerata, Department of Education, Cultural Heritage and Tourism. Her main research interests are conceptual artefacts for reflection, ePortfolio and authentic assessment, educational design, design of learning environment, online learning and teaching, teachers' in-service training.

ePortfolio and teacher training

The use of an ePortfolio as a tool to document and assess teacher training is now quite common, particularly in English-speaking countries (UK, USA, Canada, Australia (Stocks et al., 2012) but its vast geographical spread does not match an equally extensive amount of research papers on the subject.

EPortfolios are used in various contexts and throughout all levels of education, from primary school to university, to vocational training and whilst working. Its free structure makes it a customisable “across-the-board” tool which can be added to different training models and with different purposes. An ePortfolio can contain various artefacts documenting the diachronic development of an individual, arising from various contexts and spaces and relating to different times and places (primary, secondary, university, training, etc...). This is why it is considered a tool capable of providing tangible proof of the author’s individual learning paths. This feature is even more significant if observed from the perspective of teacher training.

The ePortfolio in fact favours the productive action of the individual, as it shifts the responsibility for compiling the reconstruction of the personal path and of the learning considerations to the subject-author, together also with the choice of taking on self-training courses, a very functional eventuality for a teacher, who is expected to adopt the idea of a continuous professional development from first training throughout his/her entire career. An ePortfolio, therefore, can be considered a particularly appropriate instrument for the professional development of teachers-in-training.

On the basis of this background, the article wishes to discuss the role which an ePortfolio can have as a support tool for the professional development of teachers-in-training and in the early stages of their working careers. In the first part I will show various types of ePortfolio, classified according to their different functions: for work presentation, to allow consideration of the paths developed, to share successes and failures, to assess the work carried out. Subsequently I will investigate the problem of authenticity and the relationship which exists between the ePortfolio’s owner and the people involved in managing and evaluating the portfolio, showing how a culture of trust and of mutual recognition is the necessary base for a successful fulfillment of a program based on ePortfolios.

Without mutual trust between author and evaluator, in fact, neither any form of authentic assessment is possible nor is it conceivable to offer a path which is personally challenging and costly in terms of time and effort. A possible integration of assessment cases and those related to training will be offered in the conclusions, on the basis of the work by Serge Ravet on open badges.

Different types of ePortfolio to support teacher training

1. Explanatory feature

Research has defined various types of ePortfolio, classified according to their different functions: the first type, which is closer to the traditional use

of a Portfolio in out-of-school contexts, is the one sometimes called “showcase portfolio”. The presentation and exhibition role is more evident in an international context where the teacher’s portfolio is used to examine a candidate who asks to be hired as a teacher in a school. A 2008 survey shows that according to many Canadian teachers, their portfolio was one of the elements which had the greatest weight in their recruitment (Kitchenham, 2008, p. 143). Other researches, conducted in the United States, are of the same opinion; they demonstrated that managers believed that a portfolio allowed a more accurate assessment of the teaching and organisational skills of a candidate when being recruited, rather than a simple interview (Strawhecker et al. 2008).

It may happen that a manager could feel wary of the contents of a portfolio, particularly in the case of a public portfolio, specially made to highlight the strengths of a candidate. The question of the authenticity of the inserted materials and of the connected considerations therefore emerges. On the other hand, as Whitworth and others have emphasised (2011), should the portfolio not be considered by the manager, the building process and the related considerations would still have been a good method of preparing the interview, and its development would therefore be worthwhile in any case.

As for the use of the portfolio in training future teachers, it seems certain that employing this tool can be useful in order to document their paths and the knowledge acquired during their training courses. A careful selection of the documents would enable showing the professional development not only to interested peers and teachers, but to future employers and potentially to anyone. The ability to choose what to show ensures each teacher-in-training can emphasise the aspect considered most effective and significant of the work performed, the one that best represents their expertise and achievements (Strudler and Wetzel, 2011).

2. Reflective feature

The second function of an ePortfolio is that of supporting a base for reflection. Research has highlighted the importance of reflection for a teacher, but this is also one of the professional skills considered mandatory by many teacher training programs, and it is at the top of the standards for teacher accreditation.

The very structure of an ePortfolio encourages reflection, by engaging the author in a continual process of creating meaning from the collection of artefacts documenting the past and the development towards the future. The action, collected and documented through the artefacts included in the selection, is reviewed and commented at a later time, and becomes part of a story which reconnects it to other events and to other documents contained in the portfolio. This distancing and the continuous rethinking of each single event

favours the construction of a reflexive habit which future teachers should carry with them throughout their profession.

3. Social feature

Now that it is widely diffused, the possibility of sharing various contents and some parts of a portfolio has become real and easily accomplished thanks to its digital format and to internet.

Many tools for creating a web-based portfolio contain specific functions which facilitate the connection between users and allow giving and receiving feedback not only from the supervisor or assessor, but also from all peers whom the author of the portfolio authorises to view the work and to comment upon it. The exchange of comments can concern both the included materials and the issues more related to the personal professional curriculum, such as the choice of specific teaching strategies or the decision to plan future study courses.

Some researchers have underlined that, in this sense, the ePortfolio becomes a space for a social creation of knowledge, “a construction that accompanies the progressive construction of the professional identity. This co-construction of the intern’s knowledge and professional identity initially takes place among peers. In accordance with and in opposition to them and their feedback, the intern builds a new professional identity, with a unique set of aptitudes and individual talents” (Bucheton, 2003, p. 16).

4. Assessment feature

From an assessment point of view, the portfolio represents an innovation, as it is perhaps the only assessment tool that allows appreciating both the product made and the process that led to its creation at the same time. This duplicity, underlined by Barrett (2005) and by many other researchers, leads to a more authentic evaluation procedure, as it provides a diachronic and contextualised point of view of the student’s education and of his/her professional growth. As this is a dynamic object, the very nature of the portfolio is to grow in a personal and fluid manner. For this reason, the evaluation should also take into account this specificity and should therefore be carried out in a shared manner, by involving the student and discussing with him his achievements and any problems he may have encountered. This is a very important aspect, because if the portfolio is perceived by the teachers-in-training simply as a tool for a mark to be assigned and to test their skills, it loses much of its function and its specificity. In some cases, moreover, the creation of the portfolio or ePortfolio is flanked by other more structured and regulatory evaluation methods (Goupil et al. 1999).

Strengths and weaknesses in using an ePortfolio

The adoption of the portfolio and ePortfolio as training and professional development means for teachers has been the subject of numerous discussions, reflections and critiques.

Whilst on one hand there are several researchers (Barrett, Seldin, Zubizarreta) who appreciate the strengths of the instrument, its ability to support a reflective attitude and the possibility it offers of supporting a personal and professional growth perspective which could last for a whole life, on the other hand there are critical voices which point out the burden in compiling it and the objective difficulty in assessing teachers' portfolios.

Another problematic issue can be traced to the path of compiling the portfolio. Many of the artefacts included in a portfolio, in fact, are written narratives of events, lectures, moments of school life. The channel used to communicate is therefore that of the traditional written composition. This could focus the attention of the evaluator towards different aspects, such as the quality of the written essay. It is therefore necessary that those being evaluated should be able to express themselves fluently and in an articulated manner in order to bring to the surface the complexity of the experiences undertaken and of their value. The risk in any case is that the evaluator should focus more on assessing the product rather than on the appreciation of the thoughts, reflections and processes which should be the true subject of the portfolio. Young and Irvine are aware of this risk, but point out the fact that those who are preparing to become teachers or those who are already working as teachers should have appropriately mastered and nurtured language in its oral and written forms, as this constitutes a "tool of the trade".

Along the same lines, Buckridge argues that in a "training" portfolio, although "the act of writing is not the act of teaching, [...] the writing is nonetheless further constructing the teacher's knowledge base for teaching".

The evaluation of the ePortfolio

The problem arises when it comes to analysing the evaluation means of the portfolios produced by students or future teachers.

Strudler and Wetzel (2011) point out that the purpose for which ePortfolios were initially used in teacher training was mainly to support reflection and learning. Only recently, following the development of increasingly sophisticated commercial applications capable of automatically processing a large amount of useful data for assessing the teachers' training method and

their accreditation, they have been transformed into systems which place great emphasis on managing the accreditation.

The risk, evidenced by several authors (Barrett, 2004; Buckridge, 2008, Carney, 2002), is that the two goals (learning support and accreditation assessment) are not entirely compatible. They claim in fact that using an ePortfolio for many objectives leads to a situation in which none of the many potentialities is best expressed.

Whenever a portfolio is used as a tool for accreditation or for a move to a higher role, the problem of its verification and that of its summative evaluation becomes quite arduous.

As it consists in basically free evidence, with open-ended input and answers, the subjectivity both in interpreting its delivery and in evaluating its contents highlights the difficulty of assessment. In response to this problem, Baume and Yorke (2002) suggested the idea of standardising the creation of the portfolio to some extent, but they discovered that an easier correction and evaluation of the portfolio came, so to speak, with a high price, through the loss of authenticity and of adherence to experience. This type of decrease ends up undermining the very validity of the tool and poses a problem which may be considered as the central issue in the evaluation of a portfolio and/or an ePortfolio.

One cannot consider a rigid standardisation of the contents and objectives of each portfolio, as this would distort the instrument, making it a mere list of passed “exams” which would not attain its main purpose, that of promoting reflection.

The use of an ePortfolio as a tool for a summative assessment has been criticised by several researchers (Gerrish, 1997; Mc Cullan, 2003).

According to these analyses, compiling a portfolio would be time-costly and would lead the students to shift their focus from the hands-on practice of their training. In a certain way, they point out that the construction of an ePortfolio would focus more attention on the writing itself rather than on the contents, on its pleasant presentation rather than on the action itself. This could mean that the ePortfolio’s author should possess not only the ability to act and to reflect on the action, but also be able to provide narrative descriptions and write correctly and in a pleasant way for the evaluator who will read it. Besides, there is always the risk that, given the narrative nature of many of the incorporated materials, the authors may tend to write what (according to them) the evaluator would like to hear, rather than reporting an experience as it actually occurred.

There is, therefore, a noticeable tension between the use of the portfolio as a tool for personal growth and reflection and its use for evaluation. Along this line Coleman et al. (2002), point out that, when the evaluation is based

on the ePortfolio as its main instrument, the risk is that the two requirements, that of personal growth and that of reaching a good evaluation may be at odds. Particularly concerning the motivation to obtain a good assessment during accreditation, they bring to the surface the issue regarding the author's honesty, which is potentially crucial for all evaluations, but particularly for those based on the narrative and the documentation produced exclusively by the author himself.

Concerning this matter, Trevitt and colleagues (2012) argue that in order to limit the occurrence of situations that lead to lack of authenticity it is necessary to establish a relationship of trust and transparency between scaffolder, evaluators and ePortfolio authors, in order to reassure the latter regarding the importance of an authentic narration of their own professional growth, stressing that the admission of their 'mistakes' will contribute to a positive growth. Of course it is necessary that the evaluators should have a vision which is able to recognise the process of improvement as a positive value rather than as a penalising element. It is clear, finally, that the practice of preparing e-portfolios grows where there are organisations or institutions interested in this type of evaluation.

According to the reasoning mentioned above, today's ePortfolios cannot meet the demand for a summative evaluation, nor that of being a reliable tool for an identity construction.

One solution could be that proposed by Serge Ravet, who suggests reinventing the ePortfolio through the use of open badges. They could in fact help to build richer and more trustworthy ePortfolios, thereby implementing a genuine opening. In fact, using an open source platform in order to state that an open ePortfolio has been created, is not sufficient. Thanks to Open Badges, the ePortfolio might become not just open, but also shared and disseminated. Thanks to these features, their trustworthiness would also be enhanced.

The suggestion is to "strengthen" the authenticity of the ePortfolio through the use of a system of "open" badges which would provide an "external" scaffolding system in relation to the ePortfolio's traditional structure.

Two visions of identity come into play (Wittorsky, 2007) concerning the dynamics of identity construction: the first that which the subject builds for himself and the second the one bestowed by others. The same dynamics can be traced in an online training course, where the "virtual" identity attributed to the subject by the working group is built through interactions, simulations and the various activities in which the students are engaged during the course. According to Wittorsky's vision, we can imagine that the trainees' identity construction dynamics should be supported by the implementation of the ePortfolio for the former phase (that of self-building implemented by the

subject on himself), whilst the latter, namely the construction of a socially recognised identity, should be documented by the distribution of badges.

Ravet summarises this movement precisely in this sense: “In a presentation I gave in 2009 on “ePortfolio, the engine for learning communities” I presented ePortfolios as “the threads of the social fabric constructing our identity.” Due to the siloed nature of current ePortfolios, this didn’t happen. With Open Badges, things are slightly different: no more silos and many threads, the threads of Open Badges feeding our interwoven networks of trust”.

Thanks to the portable and interconnected nature of open badges, it becomes possible to map the skills of a person, of an organisation, of a territory, easily in real-time. The construction of a network of accredited and complex badges renders the recognition of informal learning just as valid and worthy of trust as the traditional accreditation of a formal setting training.



Figure 1. ePortfolio revisited

The traditional construction cycle of an ePortfolio which begins by collecting practical and action artefacts and then passes through selection, reflection, publication and accreditation is thus enriched by the public features of the badges, which facilitate recognition and accreditation.

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Media e tecnologie per la didattica

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What is trust and how new technologies are changing or affecting the concept of trust?

This publication offers insights from researchers working in educational technology and distance education, collected in the frame of the European FP-7 Marie-Curie People project “Stimulators and inhibitors of a culture of trust in educational interactions assisted by modern information and communication technology”.

The book includes research findings on the concept of trust in a digital world, and provides examples of implications of trust for successful learning experiences in distance education – including the use of virtual learning environments, social technologies, and ePortfolios.

The research goal is to understand how trust has changed or is changing: this is related not only to the modification of the meaning, but also indicators upon which people built their judgements.

In this, technologies have a role, for their impact and for the logics that these entail, as aggregators of artifacts, subjects, systems. As several of the book’s articles stress, technologies are modifying types of interpersonal relations, by replacing face to face channels with digital channels. If communication in many cases is not face to face anymore, indicators on which trust was based are lost. How are these replaced? Which criteria are emerging? Which factors are introduced by technology?

The volume does not try to offer value judgements, but tries to understand trust and proposes reading keys.

The book presents eight articles, and as said, it arises also from research carried out in the frame of an international project, therefore provides works both from Italian researchers, and research scientists from India and Poland.

Pier Giuseppe Rossi is full professor in Didactics and Technology of Education, at the Department of Education, Cultural Heritage and Tourism, University of Macerata (Italy). He is the author of several books, book chapters and scientific articles in his fields of research.

Lorella Giannandrea is an Assistant professor in Pedagogy at the University of Macerata, Department of Education, Cultural Heritage and Tourism. Her main research interests are conceptual artefacts for reflection, ePortfolio and authentic assessment, educational design, design of learning environment, online learning and teaching, teachers’ in-service training.



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