Observing ICTs in Learners' Experiences around the World

Emanuele Rapetti*, *Stewart Marshall***

Abstract

The main goal of this article is to show why the so-called "Generation Y" (or "Digital natives") perspective seems to be inappropriate (or, at least insufficient) to describe the population of current learners. Theoretical arguments and empirical data are given to strengthen the authors' thesis.

The structure of argumentation moves from a synthetic presentation of the "generation Y" perspective, then the reasons why it seems not fully adequate in pedagogy are explained, then the main results from a research project observing contemporary learners are presented. These results are then compared with those of a similar research project conducted in a different context. Conclusions highlight major issues in the field and envision the next steps needed to elaborate a more anthropologically-founded perspective.

The research project whose data are presented is called "Learners' voices @ UWIOC" and has been run at the Open campus of the University of the West Indies. The research project was conceived in collaboration with eLab (eLearning Laboratory USI-SUPSI) and NewMinE Lab (New Media in Education Laboratory), of the Università della Svizzera italiana promoter of the study "Learners' voices @USI-SUPSI" in the Swiss context.

Keywords: digital natives; Generation Y; Net Generation; Knowledge Society; pedagogy & new media; eDidactics; eLearning; ICT4D; distance education

* NewMinE Lab, Università della Svizzera italiana, Via Buffi 13, 6900 Lugano, Switzerland, emanuele.rapetti@usi.ch
** University of the West Indies, Open Campus, Barbados.

Introduction

This article constitutes the main outcome of a research project named "Getting over the "generation Y" perspective: observing ICTs in learners' experiences around the world – The UWIOC case."

It was developed at the Universities of the West Indies-UWI (main locations: Barbados, Trinidad and Tobago, Jamaica), with the goal to observe the learners' experiences and perceptions of ICTs (Information Communication Technologies) usages and eLearning within the reality of UWIOC-Open campus of the Universities of the West Indies.

The project was funded by the KFPE (Swiss Commission for Research Partnerships with Developing Countries) University Exchange Program and made possible thanks to the Office of the Principal of the UWIOC, the UWI Distance Education Centres in Cave Hill (Barbados), Mona (Jamaica), and Morne Fortune (St Lucia).

Two main research fields were concerned: the ICT4D (Information and Communication Technologies for Development) area of studies and the "generation Y" (hereafter also "GenY") and "digital natives" issues, within the context of reflections about didactic approaches in the so-called Knowledge Society.

The mindset adopted by authors in facing the topic is the following: the theme is important and urgent and several scholars are adopting the GenY main assumptions; unfortunately, major voices in the field still miss a comprehensive pedagogical framework; besides, in the last years critical voices arose, questioning the GenY perspective; but the fascination about the existence of a digitalized generation of learners is still very strong – even in academia –; therefore it is worthy to be addressed.

The research was built embracing the approach promoted by OECD for the New Millennium Learners project (OECD, 2006 – present), namely: moving from the matter of fact that ICTs had a great impact on society – especially on young people, socialized to knowledge trough digital devices since childhood –, taking into account critical voices and accepting only data evidence, avoiding over-generalizations. It must be underlined that major voices in the debate claim a generational difference (Palfrey & Gasser, 2008, p. 2; Prensky, 2001, p. 1)

when using ICTs to learn: authors neither agree nor disagree *a priori* with this vision, and the research was meant to discern this point in depth. The rationale for this approach comes from the growing request of contextualized studies (Bennett *et al.*, 2008; Bullen, 2008-2010; Salwyn, 2009; Schulmeister, 2008).

In conclusions some pedagogical notes for instructional designers will be sketched, even if this is not the main goal of the article.

UWIOC was chosen to observe these dynamics because it provides online courses for the 16 English-speaking nations of the Caribbean, and for some of them (e.g., Anguilla) it is the only available access to university education. Therefore, in the researchers' intentions it was considered strategic to understand what kind of role the "generational factor" plays in exploiting ICTs when eLearning is not one more added tool to learning but is the only way to reach educational success.

Presentation of Topic and Authors' Perspective

The relevance of the topic emerges from the number of publications that has been produced in the last decade in order to understand how people learn in the Knowledge Society – also known as the Society of Information and Communication (Ferri, 2008), because of the widespread diffusion of ICTs (Information and Communication Technologies) in everyday experiences, included learning.

Mostly coming from the United States, the dominant theory path turns around the three label-concepts of "digital natives" (Prensky, 2001), "generation Y" (because they come after the "generation X" (Howe & Strauss, 1991), and "NetGeneration" (Oblinger & Oblinger, 2005). They have been conceived to describe the population of learners born after 1980 and coming now to university (or entering workplaces). This perspective had the merit of highlighting the role of ICTs in learning experiences of young people and putting on the educators' agendas all the pedagogical suggestions coming from informal learning, learning by playing, and collaborative learning made possible and enhanced by the new technological devices. As it has been noticed (e.g., by Junco & Mastrodicasa, 2007), it is the first time in the world history that we face such technologized educational settings.

Also, recent publications worthy of note in the field of the theory of teaching move from the inputs given by the "generational theory", stating that this kind of approach helps in customizing didactic needs, especially when facing Millennials at college:

Without taking Strauss and Howe to be the final word on a generational cohort consisting of over 75 million people, we think these seven characteristics provide an excellent point of departure for anyone seeking to fashion pedagogical schemes that have a chance of avoiding significant pitfalls (Wilson & Gerber, 2008; p. 32).

The seven characteristics mentioned are the "distinguishing traits of the millennial generation" drawn by Howe and Strauss (1992), defining the GenY cohort as: special, sheltered, confident, team-oriented, achieving, pressured, and conventional.

Wilson and Gerber argue that the Generation Y approach seems to be not exhaustive, but it is important to notice the strategic role that has been attributed to this kind of approach:

We have combined Strauss and Howe's (2000) dominant paradigm with our own classroom observations, while including some elements from these other works as they apply to practical pedagogy. We do not want to imply that Millennial preferences or traits should be the only, or even the primary, driving engine behind pedagogical strategies. But we are suggesting that readers consider accounts of those who have been studying the Millennial generation as a generation, contemplate our own suggestions for teaching strategies, and evaluate both in terms of their own experiences with Millennial students (Wilson & Gerber, 2008, p. 32).

Likewise, a less cautious approach must be mentioned regarding university level, which is the very well-known handbook titled "Connecting to the net.generation: what higher education professionals need to know about today's students" (Junco & Matrodicasa, 2007): this is based, as well, on the seven distinguishing traits and includes Prensky's and Oblingers' suggestions.

Besides, a lot of labels have been invented and all of them turn (explicitly or implicitly) on the idea of a digitalized/technologized generation: Millennials (Howe & Strauss, 2000), New Millennium

Learners (Pedrò, 2006), Screen Generation (Rivoltella, 2006), Digital Learner (Pletka, 2007), Echo Boomers (from US newspapers), Net-agers (from the Internet).

In fact, this approach has been recently criticized (this volume; Bennett, Maton, & Kervin, 2008, Bullen, 2008-2010; Salwyn, 2009; Schulmeister, 2008); here below some of the main reasons are mentioned.

– The characteristic of "digital" fits well for objects, but it seems to be inaccurate if referring to human beings. Moreover, it has become a fashionable concept because it is very novel and 'trendy'; nowadays, many things are indiscriminately called "digital".

– If the generational gap facing new technologies is accepted without being questioned, it encourages an "educational surrender" that impoverishes the sense of learning and that could reduce teaching to a simple set of methods.

– The concept of "generation" must be related to its proper meaning, while "a bunch of people" is not a generation, even if they all use the same technologies.

– This perspective seems to be quite deterministic, because by pretending to describe persons (and their behaviours, habits, and beliefs) it tries to forecast how they will learn and behave, simply from the evidence that they grew up in a world permeated by technologies.

– Most of these books and articles come from the United States and it could be a dangerous assumption to extend a-critically their analyses to other countries.

– This perspective is deeply influencing instructional designers all over the world, and it is possible to find a lot of contributions about "how to teach people in the digital era", which, again, need to be proved effective and sound in very different contexts.

– Often, this kind of approach comes along with premature or inappropriate generalizations and stereotypes.

– In pedagogy, it would be better to refuse a single medication-for-all-ills style based on methodological enhancements without considering them in a broader anthropological perspective (Rapetti & Cantoni, 2010).

A crucial point of the discussed research project concerns the "ICT4D" research path and the attention devoted to considering the

so-called "digital divide" issue (Kinuthia, Marshall, & Taylor 2009); that topic is considered in two directions, transversally, the digital divide between generations (observed with an anthropological-pedagogical perspective) and the one between countries (observed with the ICT4D perspective). In this regard, even recent studies underline that "The 'digital divide' continues to perpetuate itself despite the increasing spread of technology among the socially weaker classes and educationally deprived families. 'The web is the medium of the better educated'" (Schulmeister, 2008).

The authors' perspective aims to observe learners in their context and to understand how they consider ICTs and perceive eLearning in their learning experiences; besides, the research protocol was designed to check if learners represent themselves according to the characteristics drawn by Howe and Strauss and if they feel that they are 'digital.'

It must be emphasized that this is not an essay about a new theory of teaching and learning, but rather a contribution meant to delineate the character of learners, starting from their point of view, avoiding generalizations, generational stereotypes, and – even if appealing – universal labels and didactic recipes.

Contextualizing the Open Campus of the University of the West Indies

The rationale behind this work implies to explain why the UWIOC condition was considered strategic for the research itself: being a reality in which 16 island-countries are served by one open campus (which, in 12 cases, is the only chance to access a university-level education), it emerged as a context in which the eLearning way to teach and learn is really and structurally needed and it is not vaguely provided only because "digital natives must be trained digitally".

In order to know what this University represents for the Caribbean and how crucial the role of ICTs is, it is worthwhile to examine its training concept or scheme and some enrolment statistics (see the UWIOC website: http://www.open.uwi.edu/about/welcome-uwi-open-campus).

UWIOC offers academic programmes, professional development and continuing education programmes and courses throughout the region via online learning, blended learning, face-to-face courses, and workshops. The degree

Table 1. The 16 countries served by UWIOC and the online students enrolled in 2009-2010

Highlighted the three countries where qualitative part was run	
Anguilla	56
Antigua	169
Bahamas	23
Barbados	173
Belize	101
British Virgin Islands	32
Cayman Islands	40
Dominica	277
Grenada	308
Jamaica	1216
Montserrat	62
St. Kitts and Nevis	151
St. Lucia	360
St. Vincent	211
Trinidad and Tobago	1527
Turks and Caicos	6
TOTAL	**4712**

programmes are: Management Studies, Banking and Finance, Education, General Management Programmes, Social Work. In addition, Open Campus offers professional development and continuing education programmes in e-Governance, Community Media, Entrepreneurship and HIV/AIDS prevention. In most sites, the Country Site Coordinators also organize workshops and courses that satisfy the local community needs. This includes courses in computer technology and basic business skills. The current Open Campus course catalogue includes over 100 fully online courses and several hundred face-to-face courses/workshops/seminars in a variety of topics.

At present, 4'712 learners are registered in online programmes and almost 18'000 learners registered in face-to-face or blended learning courses, workshops and programmes throughout the region. The majority of online students are located in the other countries without a physical campus and almost all of them are part-time learners (UWIOC, 2009).

To identify the average target of UWIOC, it is also worthy to mention that:

– the significant majority of the UWI Open Campus student population are working professionals;
– they range in age from 17 to 64 (over the whole population, 64% are below the age of 35; while, concerning the 4'712 fully-online students the big majority is represented by adults);
– the gender breakdown of the student population is: 80% female, 20% male.

The Research Project

Research Design and Methodological Notes

The research project "Learners' voices @ UWIOC" (now "LV@UWIOC") was run during winter semester 2009 by the authors.

This research project is part of a broader research path promoted by the NewMinE (New Media in Education) Lab of USI over the last years about the impact of ICTs in learning and the pedagogical consequences for the so-called Knowledge Society. It was made possible thanks to the KFPE funding and the availability of UWIOC.

The main aim of the research work is to understand whether it exists a digitalized generation of learners and all the methodological steps were just built up in order to investigate this point; then, to see which possible advices are to be given to instructional designers; and, eventually, to draw some pedagogical reflections.

Indeed, according to these objectives, there are no hypotheses in the proper sense; but rather exactly the idea is to verify\falsify the assumptions founding the existence of GenY (briefly: if it is correct to affirm that the age variable is sufficient to identify the "digital" learners), and – stressing the dataset *a posteriori* – to explore if other demographic variables are more relevant to determine the appreciation of ICTs in learning experiences (and the consequent adoption).

Next steps of the whole research plan will aim to explore the statistical significance of the age factor on other items in the questionnaire used for the survey (e.g., factorial analysis). The final aim is to provide results in terms of profiles (working also with cluster analyses), in order to offer advices based on data evidence to instructional designers and policy makers in the field of education.

Specifically, the LV@UWIOC research design was planned to combine qualitative and quantitative methods, following the criteria to get a complex picture of the observed reality. Therefore, the research project was conceived in two phases of data collection:

– Phase 1 (quantitative): in order to have a deeper knowledge of the reality about ICTs use in Caribbean learners' experiences. This objective was pursued through an online questionnaire (in English, sent to all the fully-online students) and statistically treated.

– Phase 2 (qualitative): conceived to discern the reasons of ICTs use in learning and to figure out what are the real usages of new technologies in digital natives' lives. To get this aim, semi-structured interviews (Bailey, 1991) were performed with UWIOC students (both blended and fully online ones).

Concerning the quantitative part, the online questionnaire was sent by e-mail to all the online UWIOC students enrolled at the higher-education level (4'712). It was elaborated on the basis of the studies conducted in the UK by the JISC consortium (JISC, 2009). Main items of the questionnaire were:

1. Personal data (age, sex, economic income, country, university enrolment, etc.).
2. Owned digital technologies.
3. Access to the Internet.
4. Most used applications and digital technologies.
5. Online activities.
6. Most used social networking / social sharing applications.
7. Use of ICTs at home and at work and practices of study with ICTs.
8. Perception of a generational gap in the use of ICTs.
9. Favorite tools to learn in the Knowledge Society.
10. eLearning perception.
11. Self perception in using ICTs.

Despite three subsequent recap actions with different styles[1], the expected sampling of 200 learners (stratified in 100 blended and 100

---

[1] The first email was sent by the official address used by UWIOC to communicate with students and also a note was published on the main page of their online learning platform; the second was sent by the authors; the third was sent by the peers who already answered, kindly asked by the researchers.

fully online) was not achieved, and researchers were forced to work with a self-selected sample and to analyze quantitative results as a whole concerning "country", "university enrolment", and "campus" variables (while the objective was to observe the sample through all the demographical variables).

The final number of respondents was 128 and their representativeness of the population was respected except for the country variable (overbalanced the presence of Trinidadians, and 3 countries not represented). Observing age distribution, "GenY" (born after 1980) respondents were 36,7% (indicated in charts below as "younger").

Concerning the qualitative part, it was planned to meet students expressing the most demographic variance possible (respecting the population distribution), in order to have a qualitative data set not precluding the possibility to extend results to the whole population. The interviews' protocol was semi-structured and covered the following areas:
1. Personal data (name, age, sex, nationality, campus, worker/non-worker, blended/fully online, university enrolment, etc).
2. Explaining what does it mean to use ICTs (in learning experiences).
3. Describing the most used/favorite ICT and why.
4. Reflecting about the most useful ICT in a learning experience.
5. Talking about generational differences in using ICTs to learn.
6. (After a brief presentation of the digital natives/immigrants) discussing Prensky's theory.
7. Checking the Howe and Strauss distinguishing traits and expressing agreement/disagreement.

Learners were met on two of the three campuses giving both physical and online university lessons (namely, in Barbados and Jamaica) and in one of the twelve countries were UWIOC only holds learning centres (St Lucia). Considering the contextual constraints, mainly due to the worker/employee condition of a large number of students, the final sample was solid and satisfying; over 15 persons were interviewed, 8 were younger than 30 years old ("GenY" members) and 7 were older; 9 of them were female and 6 male; 6 came from Jamaica, 5 from Barbados, and 4 from St Lucia; 8 were attending fully online programmes and 7 blended ones; 10 described themselves as workers, 5 did not.

Results from Quantitative Data

In the following sub-paragraphs the most interesting results coming from the descriptive statistics of quantitative data are put in evidence.

Online, Namely…

The first data to focus on concern the learners' online activities, grouped in our questionnaire in five families of actions: downloading, sharing, studying, working, enjoying. This kind of observation is set in the theoretical framework of the so-called "media diet" (Cola, Prario, & Richeri, 2010), meant to describe media usages not only in terms of use frequencies, but also to understand when and why ICTs are used. In the following charts results are presented comparing younger and older students. As can be noticed, only in three cases (charts 1, 2, 5) there is a different behaviour concerning the activities performed every day, but no one of these implies a generational gap: younger people share and enjoy more than older ones, because they have more time to dedicate to leisure (since they do not work or work part-time); older people probably download more than younger ones, because they

Chart 1. "Please, indicate how often you do these activities online" – downloading (question 13a)
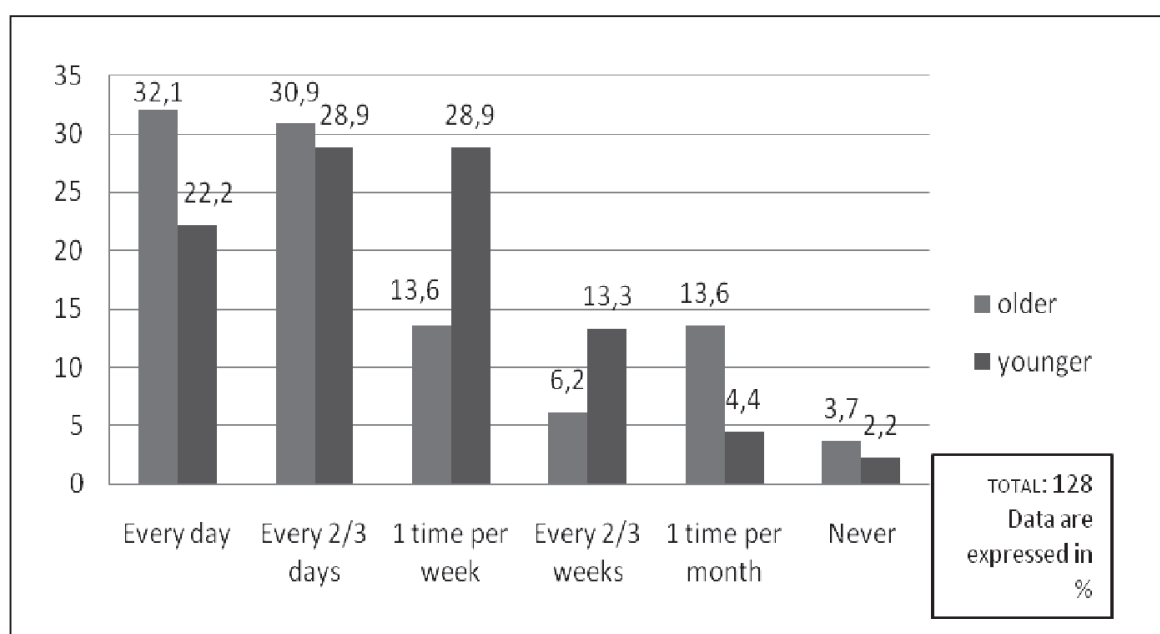
Chart 2. "Please, indicate how often you do these activities online" – sharing (question 13b)
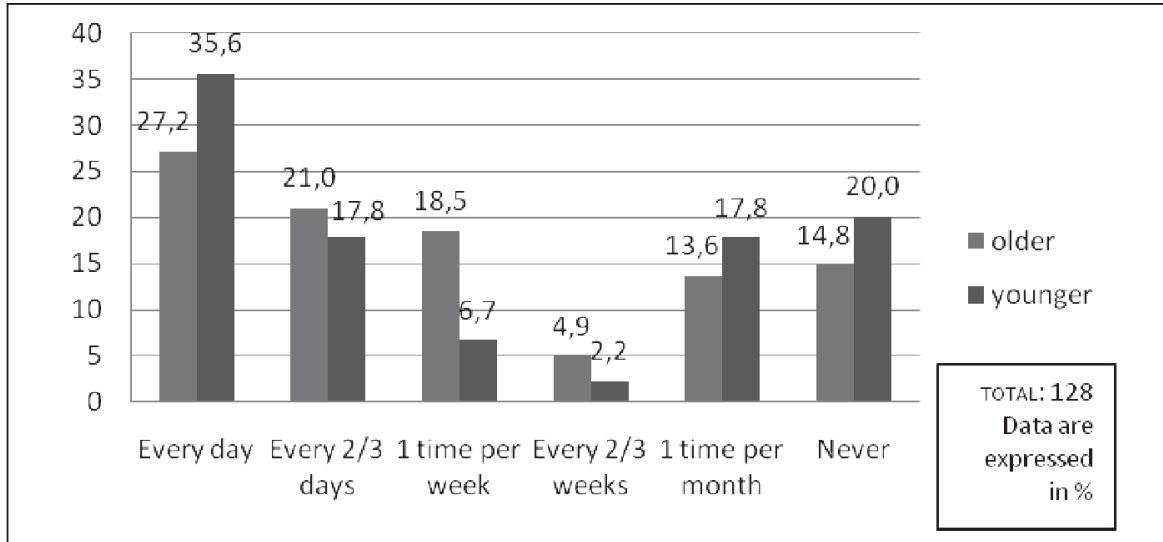
Chart 3. "Please, indicate how often you do these activities online" – studying (question 13c)

attend more fully online programmes (again, for working reasons and also for gender issues: female adult students cannot attend lessons face-to-face because they work and have household duties). It is important to underline that there is virtually no difference in the study online (chart 4).
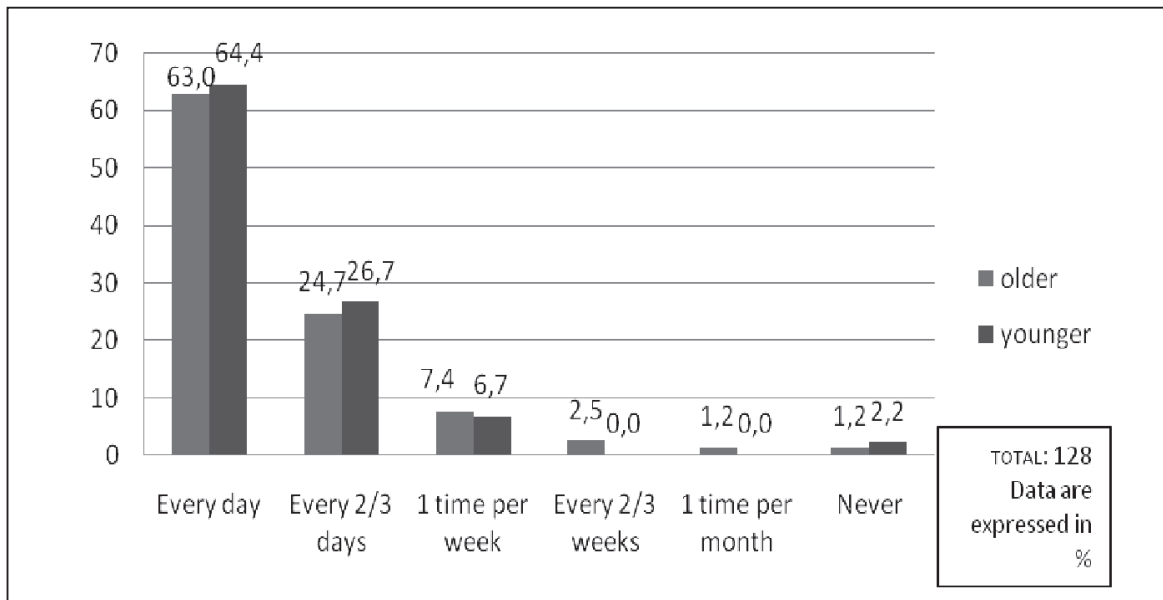
Chart 4. "Please, indicate how often you do these activities online" – working (question 13d)
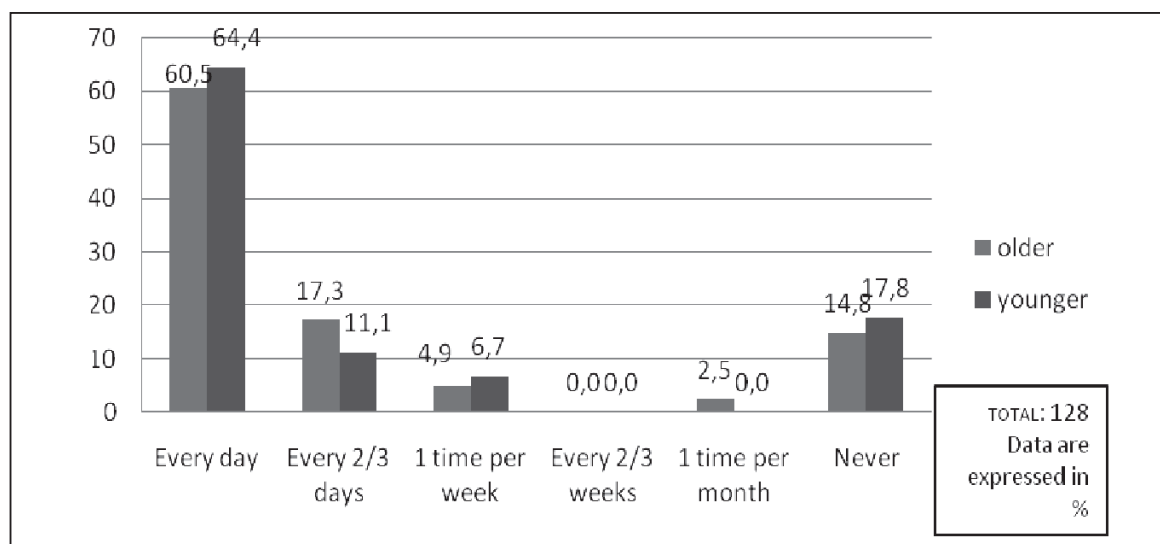
Chart 5. "Please, indicate how often you do these activities online" – enjoying (question 13e).
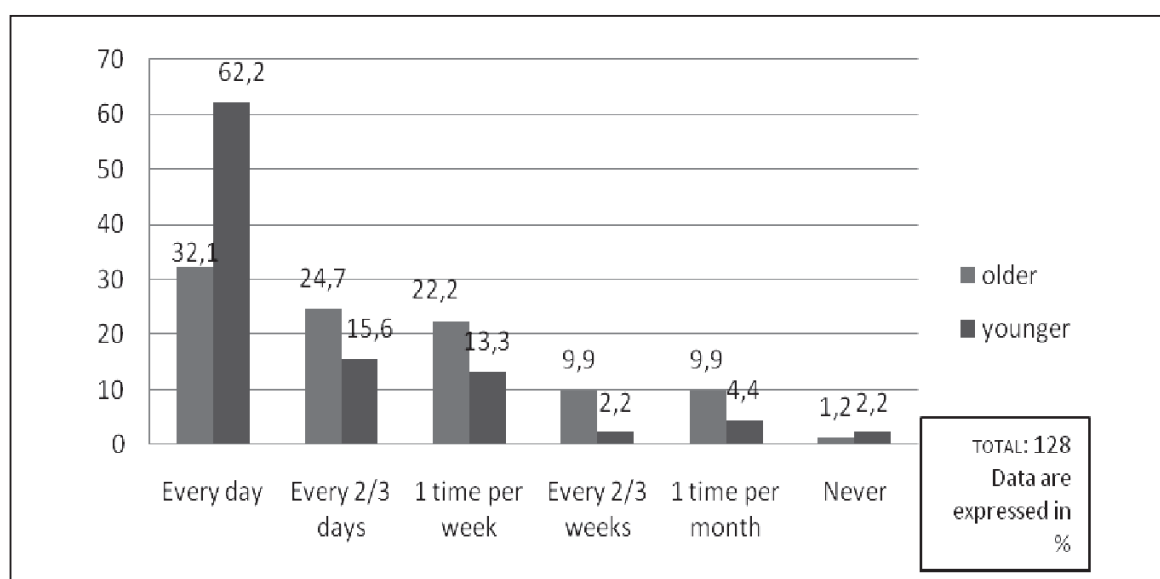
To be noticed that "enjoy" stands for: "using the web only for fun/leisure purposes"

The Role of ICTs in Everyday Life

Question 15 was devoted to examine how much learners consider ICTs have improved some everyday life actions. As shown in Tab. 2 the higher impact is observed for the learning field.

Table 2. Analysis of question 15 "How much ICTs have improved…" (Respondents 128, missing 2)

How much ICT have improved...	A lot	Fairly	A little	Not at all	TOTAL
The way you practice your hobby or interests	34,4%	38,4%	19,2%	8,0%	100%
The way you do your student's tasks	60,3%	31,0%	7,9%	0,8%	100%
The way you learn	60,3%	31,0%	8,7%	0,0%	100%
The way you have relationships with your friends or your family	40,5%	31,7%	15,1%	12,7%	100%
The way you share your ideas or creations	36,5%	39,7%	19,0%	4,8%	100%
The way you collaborate with your peers	46,8%	27,4%	21,8%	4,0%	100%

In chart 6 the two actions referring to the learning field are presented according to the generational split. Older people declare a little bigger impact; this can be easily explained, if we consider the learning effort they are requested to spend with certain digital technologies.

Schema "Preferred Way to Learn"

Interesting results emerge also from question 17 about which is the preferred way to learn. Respondents were asked to choose among all the available learning strategies in their experiences, considering the ones made possible through ICTs (like using search engines or Wikipedia) and the "classical" ones (like lecture in classroom or printed dictionaries); in the questionnaire it was clarified that "to learn" was meant in the broader sense of achieving any kind of knowledge useful in learning.

As revealed by chart 7, "search engines" was the most chosen option (two thirds of respondents said they prefer them "a lot"); but it should be emphasized that the second, third, and fourth options were those

Charts 6a-6b. "How much ICTs have improved" – the way you do your student's tasks (question 15b); – the way you learn (question 15c)
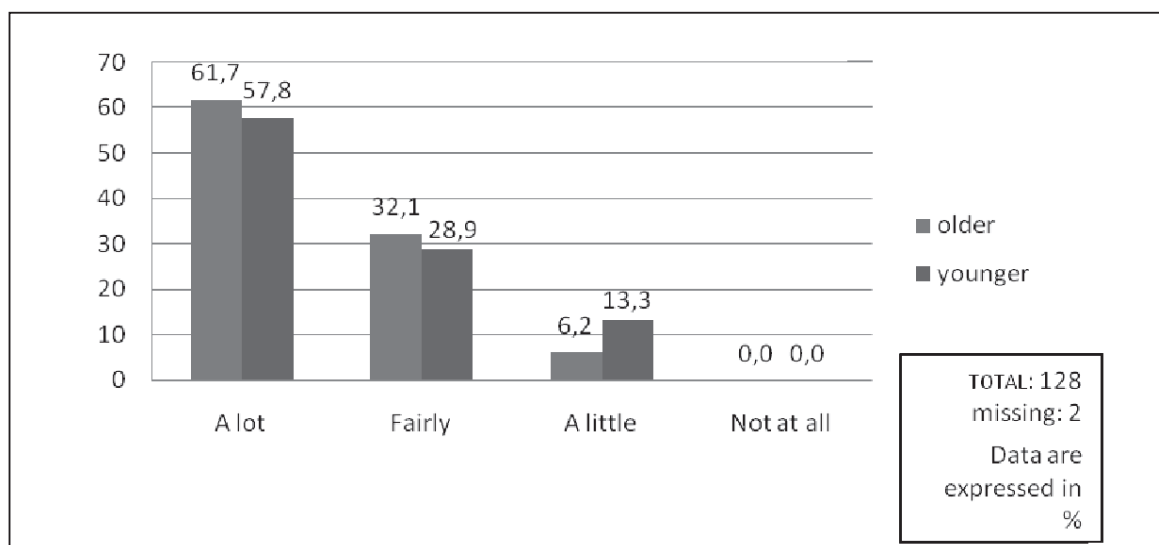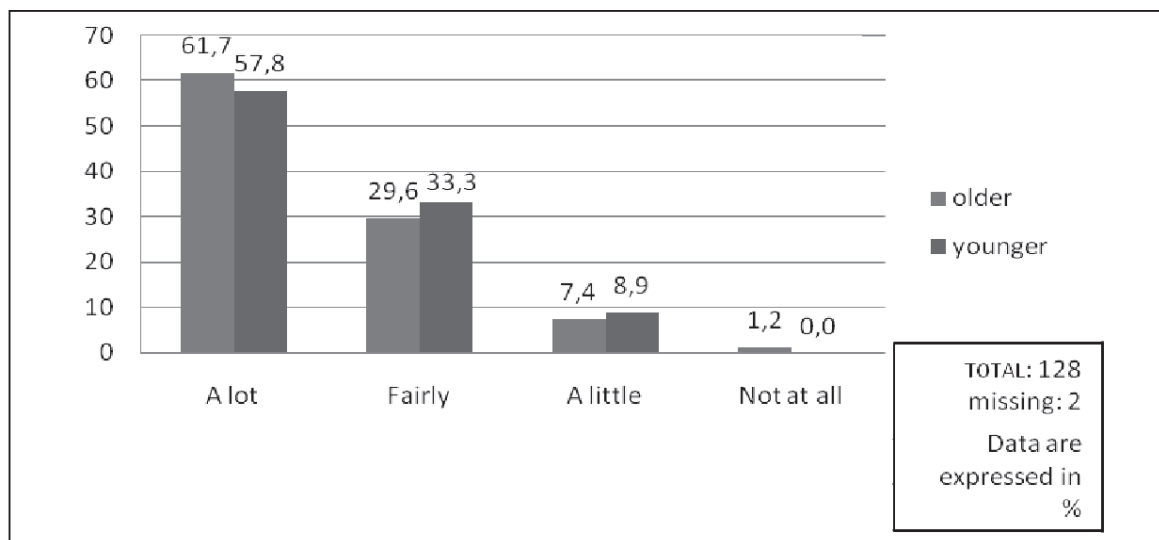
pertaining to "classic" learning strategies, and only in the fifth place do we find eLearning.

The following chart shows the distribution of younger and older concerning the answer "a lot" for "search engines" and "individual study" cases (the first two), and "eLearning" (pointed out for its relevance in this article); it emerges that there is a more cautious attitude by young people, who – in the eLearning case – reach 10 percentage points of difference.

Chart 7. The preferred ways to learn (question 17)
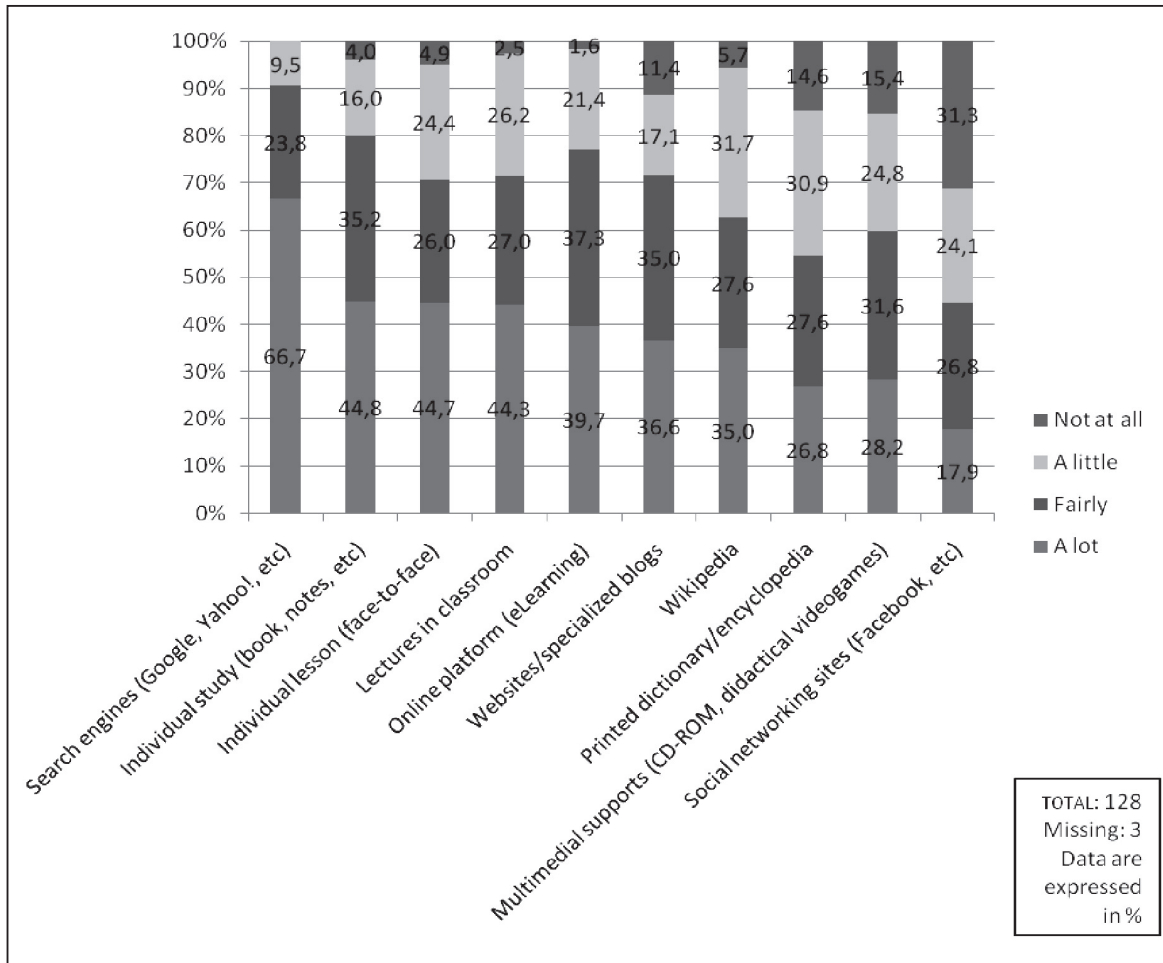
Chart 8. The preferred ways to learn (question 17) generational split – focus on "a lot" responses in three prominent cases
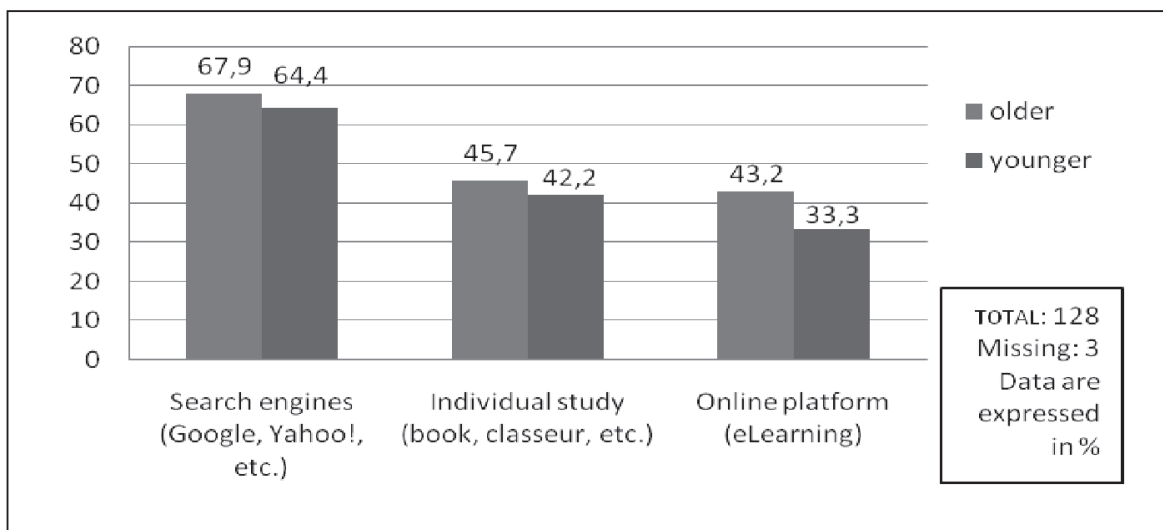
Chart 9a-9b. eLearning perceptions – "eLearning is an important element of my courses" (question 21a) and "without eLearning I would be unable to study" (question 21b)
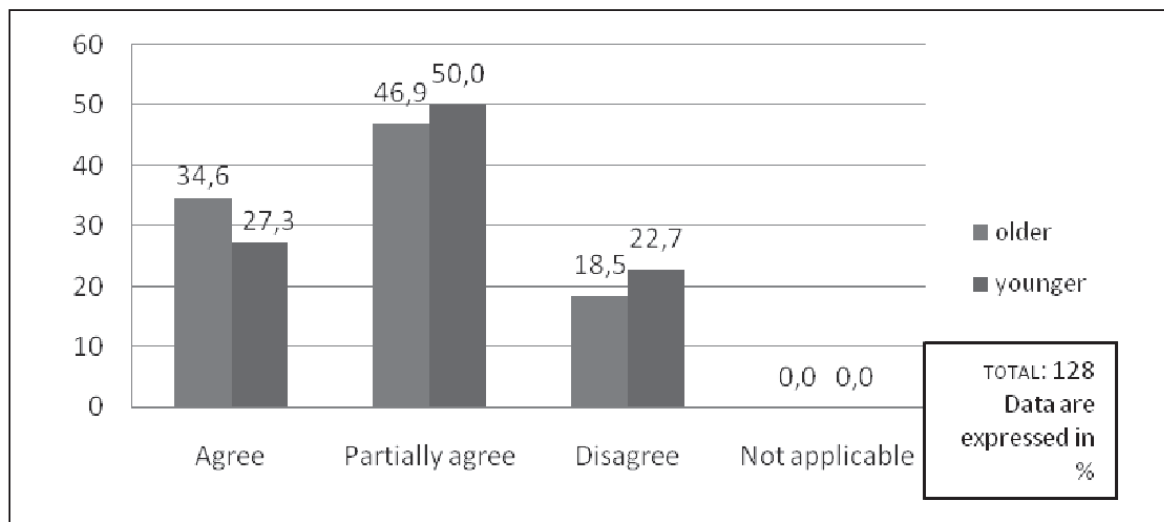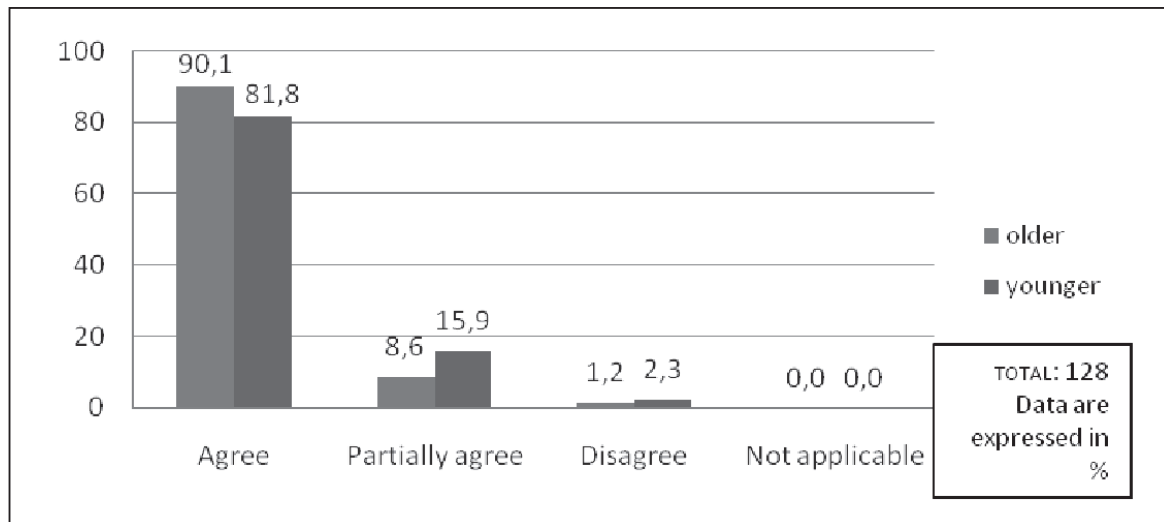
eLearning Perceptions

The last descriptive statistics regard the eLearning perception declared by respondents; in question 21 learners were asked whether they agreed or disagreed with a list of statements. General results about this question show that 87,2% of the sample agrees that "eLearning is an important element of my courses". If looking for generational differences, what emerges again is a more cautious behaviour of the younger group, as shown in 9a-9b and 10a-10b.

Chart 10a-10b. eLearning perceptions – "eLearning makes learning easier for me" (question 21l) and "it would be good if there were more eLearning in my courses" (question 21m)
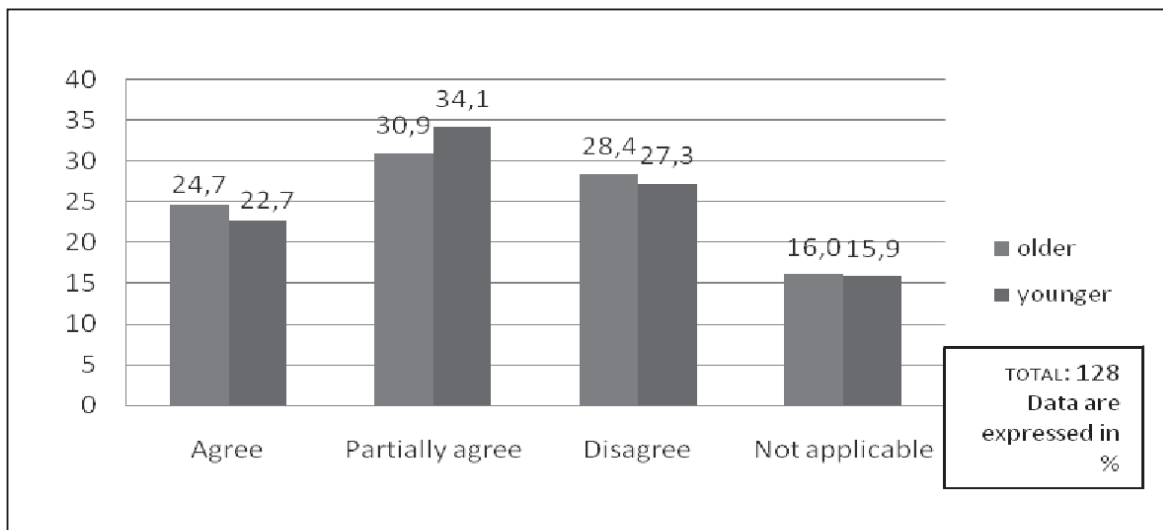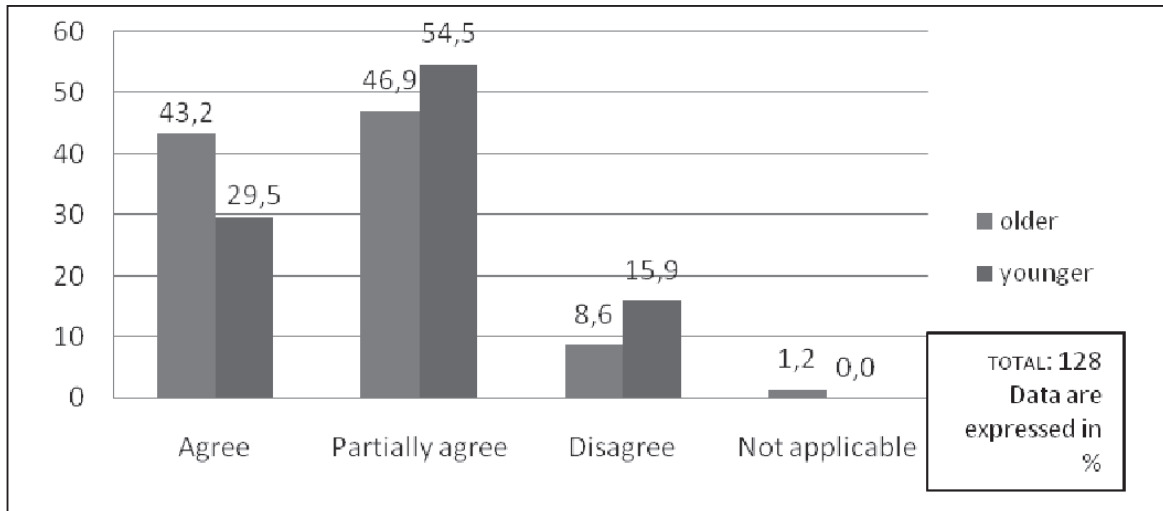
Such results allow us, at least, to discuss the existence of a peculiar "generation of digitalized learners", since the perceptions of younger and older learners facing ICTs are effectively so close; adults even express more appreciation for digital learning. It is possible to conclude/assert that the age factor has a discrete impact on certain aspects (e.g., the familiarity with new digital devices), but cannot be considered as the independent variable explaining how current learners face ICTs. What the results outline is the ability of UWIOC learners to

set their media environment in the most efficient way, involving digital technologies when needed – above all in the communication area. If there is a significant difference between "GenY" and those older, we can see it in the time devoted to use ICTs (the frequency of usages), and this influences the familiarity with new devices; but the expressed goals are on average the same, without any generational break.

The Qualitative Data

Methodological Note

The sampling for the qualitative phase started about one month after the first questionnaire was answered, and it was meant to collect as more variance as possible within the UWIOC population. According to that, through the intermediary of the "Programme Offices" in Cave Hill (Barbados), Mona (Jamaica), and Morne Fortune (St Lucia) campuses, 19 persons were contacted and 15 answered to the call. The interviews were run in English and people (met – normally in empty lesson rooms – after/before lessons or come at the campuses for bureaucratic needs) devoted, on average, 50 minutes for that. The interviewer took notes and audiotaped the interviewees (every time, asking permission in advance); then verbatim transcriptions were made.

Main Results

In the following sub-sections some functional insights coming from the interviews are offered. It must be emphasized that the complete qualitative dataset is not stressed in this article, according with the research design, in which it was planned to use qualitative data as explanatory of the most controversial aspects emerging from the results of the questionnaire.

A general overview about interview results portrays competent learners, on average appreciating ICTs in every aspect of everyday life and exploiting the chances offered by digital devices, not excluding the educational field. At the same time, it emerges that it is not the age variable to cluster the "tech-addicted" ones: the most excited about videogames was a woman 37 years old, who stated that "ICTs broadened my mind" (N.J., St Lucian, teacher in primary school). Two other

interesting hints concern more universal aspects: by everyone digital technologies are said to be essential above all for communication goals; most of interviewees contributed to discussion emphasizing the big changes ICTs produce every day on human life; as predictably, this kind of comment covers the whole range from utopia – "you can access all the infos, immediately... from all over the world. No more difference in knowledge!" (A. M., female, 50, Barbadian, housewife) – to dystopia – "Internet allows you to do everything, example, I copy from Google the Excel templates and it enhances my professionalism... but, trust me, I'm poorer: I'm not able anymore to do calculations by myself. Much less a chart." (A.Q., male, 46, St Lucian, government officer).

"ICTs: Easy, Fast, Cheap"

The first aspect worth of analysis is the *adage* "ICTs are easy, fast and cheap," pronounced – literally – by 8 persons and expressed as a part of their argumentation by almost all the interviewees, independently if referring to cellphones, palms, computers connected to the Internet or digital devices in general. The key point is the universal feeling about ICTs; on one hand, this is a positive aspect of international and trans-generational agreement that could be capitalised when building public/educational policies; on the other hand, there seems to be a risk of loss of critical reflection.

The Reasons Why ICTs Usage is Different, According to Age

In 14 cases out of 15 interviews, one open question focused on the "generational divide" issue: all of them agreed about the existence of a difference and 3 persons asserted that there is "definitely" a gap (one lady said the "younger make you feel like a baby when they're at the computer"). The rationales provided for this difference are very interesting for researchers: time management problems (proposed 6 times), lack of digital literacy (4 times), more mind agility in learning when children (4 times), cultural factor of being born in a digital environment (2 times). According to F.A. (male, 21, Barbadian, student), it is related to different lifestyles: "Yeah, age matters! Young brain(s) are able to pick up easily new technologies [...] it is something in the way we think related to the life pressure. It's for…different level of stress

and time: we don't have to worry about family and work. So, young people are more advanced in new stuffs" (sic); and D.B. (male, 47, Barbadian, supervisor of an electricity company) declared "...they spend more time on pc: my son's computer is on all the time, for any kind of things. The whole social/human being is upset by computer... while, as (for) me, when I come back at home it's night: I turn it on just to study and stop"; while A.R. (female, 22, Jamaican, employee) put the attention on learning: "adults are slow. If one lady is not familiar with pc, in the classroom, when I'm already working she's still turning on it. The time and the effort are different: learning how to do is time consuming and they prefer to call and ask help instead of learn how to do".

The Blackberry Effect

Differently from other countries, where other tools are more diffused (e.g., iPhone), in the Caribbean the Blackberry palm was one of the most mentioned devices; even people who do not need at all a palm said they were proud to have one, probably perceiving it like a status symbol.

The story of P.S. (female, 51, Jamaican, teacher at junior school) is evocative:

"I asked a Blackberry from my nephew as a present for my birthday. I use it like a cellphone, I'm still not at all familiar with the features... it's difficult... but I wanted (it)! Really! I do not want to go back: everyone wants to have a Blackberry, even Obama has one! It makes life easier [...] and then, it improves in learning, coz you are in environment (…) without a cellphone you are lost, and, with a Blackberry you can communicate with a friend in another country and learn Spanish".

"Do You Feel Digital Native/Immigrant?"

Prensky's concepts of digital native/immigrant were factors in all the interviews, after a brief explanation of the discourse about this kind of approach. The possibility to be conceived as "digital" split the sample: 8 of them were charmed by the idea, while the others found it not appropriate to describe human beings; it is to be noticed that the age variable was transversal throughout the two groups and that only one interviewee agreed with the hypothesis of different brains. Some

quotations help in understanding how learners feel themselves: "Yeah, everything around is tech-based. The world is digital, so I'm digital" (F.A., male, 21); "Very much so! A lot of technologies in my life: from my Blackberry, to my micro-wave, everyday" (S.S., female, 21); "Human beings are digital because everything is about (the) computer! The brain itself is a computer" (A.R., female, 22); "...natives born within an environment, immigrants have to come in [...]. But this is not a problem: world goes digitally? And we don't have to rest behind!" (S.M., male, 44); "No, I'm opened to learn. Tech-ability is related to the person, not to age" (N.J., female, 35); "This is the classical American perspective: they simplify! To split in two groups is a stereotype, but persons are meant to be adaptable to change" (D.B., male, 47); "I see the point, but I really don't feel at ease with the word 'immigrant'!" (P.S., female, 51); and the corrosive "Uhm! So, is my father 'analog'?" (K.H., male, 21).

"Multitasking Is a Way to Be"

The last point of reflection of every interview was the list of the "distinguishing traits" proposed by Howe and Strauss. The most remarkable point is that no one agreed on the whole list, like characteristics perfectly fitting for the young generation, and in some cases those adjectives were considered far away from their perception (the less appreciated was "conventional").

Among the four contemporary learners attributions stated by Junco and Mastrodicasa (driven to success, social, experiential learners, and multitasking) (2008) the most controversial was considered "multitasking": only one interviewee referred it to the opportunities given by new technologies, while all the others said they felt this way but described it like a way to behave in life. As put by S.M. (male, 44), "Multitasking means multi-skills: we live in a new world order where to survive you have to know everything, otherwise... you are redundant!".

A Comparison with "Learners' Voices @USI-SUPSI"

A similar research project was run in Ticino (the Italian part of Switzerland), and it was called "Learners' voices @ USI-SUPSI" (Rapetti *et al.*, 2010; Rapetti & Cantoni, 2010). It is useful to offer the

main outcomes of the Swiss investigation in order to both strengthen our thesis and underline that such results of LV@UWIOC come from a context where eLearning is not just a possible added tool to learning (like in Switzerland, for economical and geographical reasons), but is the only way to reach educational success. Therefore, in the Caribbean it would be expected to find much more enthusiastic learners of technology in education.

"Learners' voices at USI-SUPSI" involved 562 students of the University of Lugano (Università della Svizzera italiana – USI) and the University of Applied Sciences of Southern Switzerland (SUPSI). The quantitative part was run during the winter semester 2009. Results from the online questionnaire were treated statistically: descriptive stats were offered to show students' perceptions, behaviours, media diet, and eLearning preferences; while cross-tabulations and cluster analysis were provided to investigate the age variable.

A rough comparison of statistical data shows that the medial diet of UWIOC students is not too far from the Swiss ones; in the Caribbean there is a little more usage related to communication instances; videogaming is a little more diffused among the UWIOC population; Swiss learners declare ICTs have less improved the way they learn and perform their students' tasks (on average, they answered "a lot" about 20% less than Caribbean learners); the five preferred strategies to learn in Switzerland are almost the same as what was declared by UWIOC students, but in a different order, namely: lecture in classroom, search engines, individual study, Wikipedia, online platforms (Wikipedia was put in the 7th place by Caribbean people).

Even if the topic of "media convergence" (Jenkins, 2006) would deserve a specific analysis, it is possible to say that the Swiss and Caribbean samples express a behavior substantially close in the way they set all their devices to learn.

Just to mention the three major considerations that "Learners' Voices @USI-SUPSI" allows, it must be remarked that:
1. Cross-tabulating "age" variable with other questions, it emerged that, on average, it cannot be considered the independent variable to identify clearly tech-oriented learners;
2. Rather, it is part of a corpus of explanatory factors, inter-related but

never directly correlated, such as economic condition (e.g., palms owned the most by adults because of the price), or discipline choice (e.g., Web 2.0 tools – especially weblogs – preferred by engineers, probably because of the awareness of "what there is behind"), or eLearning familiarity (e.g., Moodle university platform considered most important by Communication students, which is the faculty in which eLearning is provided the most).

The only "media skill" attributable to younger students is a greater tendency to use the online tools for information gathering, while adults remain more linked to "classical" knowledge sources (such as printed dictionaries or encyclopedias).

Briefly put, the existence of a monolithic "generation of digitalized learners" is really questionable, whether in the Caribbean or in Ticino.

Conclusions & Outlook

In concluding this paper, we could summarize the global outcomes of LV@ UWIOC by saying that not only the quantitative data do not reveal the expected enthusiastic appreciation, but they also show that people in the GenY bracket (which is forced to use eLearning and ICTs for contextual reasons) are much more cautious in positively assessing digitalized learning than their older university-mates. Moreover, qualitative data informed us about several facets to conceive the generational gap facing digital world and, surely, some of them have to be stressed in further research.

The request coming from the critical voices to consider carefully, avoiding rhetoric, the idea of a digitalized generation of learners is strongly confirmed by our results. If we focus on data related to the media diet of UWIOC students (see: charts 1-5), it is possible to affirm that:
– for sure, younger have a broader and deeper familiarity with ICTs in their everyday life;
– but it does not emerge a clear gap between younger and older when stressing digital technologies in learning experiences;
– besides, older declare to like and to desire eLearning even a little more than younger (charts 10a-10b).

This seems to discourage an educational theory based on the mere introduction of digital tools in learning; and the fact that younger learners – in a context where ICTs are strategic – are, after all, lukewarm (see chart 8: only one student over three declares to like "a lot" the eLearning), need to be judiciously considered.

When these data are observed together with the qualitative results, it emerges a reality in which learners (not only young people) are conscious about the benefits coming from the usages of digital devices, and this is a positive aspect of international and trans-generational agreement that could be capitalised when building public/educational policies. But, at the same time, learners (not only the adult ones) do not express a blind faith in the role of ICTs in learning; rather, they still express a great appreciation in favour of classical way to learn (see chart 7), combined with new digital strategies.

In terms of pedagogical reflection, the above considerations seem to confirm what requested by the GenY-sceptics; therefore, we must state that it is necessary to contextualize the discourse about learners and to avoid generalizations about their – supposed – technological skills; our research shows that it is highly risky to split the tech-savvy learners simply according to the age factor and we totally agree with D.B.: human beings "are meant to be adaptable to change". Accepting this suggestion asks for a big challenge: to tune our educational planning on the real technological potential in learning of our students and to be able to achieve this knowledge in advance, for an honestly customized pedagogy. Taking into account the reasons exposed for the gap between younger and older, we must admit that aspects such "time management problems" or "lack of digital literacy" should be fixed before providing learning through ICTs or, *a fortiori*, eLearning courses. Otherwise, we are planning to deliver implicitly a "pedagogy of the gap", in which who is more skilled to use ICTs in learning – for age, contextual, economical reasons – will be inevitably favoured.

In that controversial and complex point is the connection with the ICT4D research field: policies of development request to discern the learners' needs, requests, and skill-levels in order to lead the technical requirements and the disciplinary objectives within a pedagogical framework really oriented to equity (aiming to consider and respect

learners differences in "learn how to do"). Probably, overcoming a *naïf* opposition of age cohorts will help learners, educators, and involved stakeholders to better deal with the goal of "learn in a digitalized world".

If we address the issue from the point of view of an instructional designer, it is probable to consider that a good teacher is not a digital one, but a competent one: his/her power does not seem to come from the introduction of a lot of digital devices in the didactical process. In fact, looking deeply at Wilson and Gerber's suggestions, it looks like ICTs do not play any major role:

We advocate that instructors 1) strive for greater clarity in course structure, assignments, and grading expectations; 2) provide significant opportunities for student initiative, participation and choice; 3) incorporate stress-reduction mechanisms; and 4) engage students in a significant, course-long conversation on the ethical dimensions of taking a college class (2008; p. 32).

In conclusion, the present work aims to have a double value: primarily, to discuss LV@UWIOC results; but also to suggest a sound theoretical set of reflections to overcome the "GenY" perspective. This second ambitious goal means, from the authors' point of view, to observe learners and ICTs, refusing premature stereotypes and generalizations – even when apparently cogent – and to shift the educational focus from supposed, generic "generational requests" of technology to anthropological needs (expressed or unexpressed) for an education aware of the context and learners' perspective.

References

Bailey, K. (2007). *Methods of Social Research (4th edition)*. New York: Free Press.

Bennett, S., Maton, K., & Kervin, L. (2008). The 'digital natives' debate: a critical review of the evidence. *British Journal of Educational Technology*, *39* (5), 775-786.

Bullen, M. (2008-2010). The NetGen Skeptics blog. In Internet: http://www.netgenskeptic.com

Cantoni, L., Botturi, L., Succi, C., & New MinE Lab (2007). *E-learning. Capire, progettare, comunicare.* Milano: FrancoAngeli.

Cola, M., Prario, B., & Richeri, G. (2010). *Media, tecnologie e vita quotidiana: la domestication*. Roma: Carocci.

Ferri, P. (2008). *La scuola digitale*. Milano: Mondadori-Pearson.

Howe, N. & Strauss, W. (2000). *Millennials Rising: The Next Great Generation*. New York, NY: Vintage Original.

Jenkins, H. (2006). *Convergence Culture: Where Old and New Media Collide.* New York, NY: New York University Press.

JISC consortium (2009). Learner's Voices Research Outcomes. In Internet: www.jisc.ac.uk/whatwedo/programmes/elearningpedagogy/learneroutcomes/learnervoices

Junco, R. & Mastrodicasa, J. (2007). *Connecting to the Net.generation: What Higher Education Professionals Need to Know about Today's Students*. Washington, DC: NASPA, Student Affairs Administrators in Higher Education.

Kinuthia, W., Marshall, S., & Taylor, W. (2009). *Bridging the Knowledge Divide. Educational Technology for Development*. Charlotte, NC: Information Age Publishing.

Oblinger, D., & Oblinger, J. (eds.) (2005). *Educating the Net Generation.* Educause. In Internet: http://www.educause.edu/educatingthenetgen

OECD (2006-present), *The New Millennium Learners Project*, In Internet: http://www.oecd.org/document/10/0,3343,en_2649_35845581_38358154_1_1_1_1,00.htm

Palfrey, J., & Gasser, U. (2008). *Born digital: understanding the first generation of digital natives*. New York, NY: Basic Books.

Pedrò, F. (2006). *The New Millennium Learners. Challenging Our Views on ICT and Learning*. OECD-CERI background paper.

Prensky, M. (2001). Digital natives, digital immigrants, part II: do they really think differently?. *On the Horizon*, *9* (6), 15-24.

Prensky, M. (2006). *"Don't Bother Me Mom, I'm Learning!": How Computer and Video Games Are Preparing Your Kids for Twenty-first Century Success and How You Can Help*. St. Paul, MN: Paragon House.

Rapetti, E. & Cantoni, L. (2010). Exploring the added value of digital technologies and eLearning in higher education from learners' perspective. A research informed by a systematized literature review, in *Edu-Learn 2010 Conference Proceedings*, Spain.

Rapetti, E., Ciannamea, S., Cantoni, L., & Tardini, S. (2010). The Voice of Learners to Understand ICTs Usages in Learning Experiences: A Quanti-qualitative Research Project in Ticino (Switzerland), in *Proceedings of the World Conference on Educational Multimedia, Hypermedia and Telecommunications (EDMEDIA) 2010*, Toronto: AACE, pp. 2527-2536.

Rivoltella, P.C. (2006). *Screen generation. Gli adolescenti e le prospettive dell'educazione nell'età dei media digitali*. Milano: Vita&Pensiero.

Selwyn, N. (2009). The digital native – myth and reality. *New information perspective*, *61* (4), 36-379.

Schulmeister, R. (2008). Is there a net gener in the house? Dispelling a mystification. *Eleed – E-learning and Education Online Journal*, *5*.

Schulmeister, R. (2010). *Deconstructing the Media Use of the Net Generation*, in this volume.

Strauss, W. & Howe, N. (1991). *Generations: The History of America's Future, 1584 to 2069*. New York, NY: Quill.

University of the West Indies – Open Campus (2009). *Open Campus Programmes*. In Internet: http://open.uwi.edu/prospective/open-campus-programmes.

Wilson, M. & Gerber, L. (2008). How generational theory can improve teaching: strategies for working with the "Millennials". *Currents in Teaching and Learning*, *1* (1). In Internet: http://www.worcester.edu/currents/archives/volume_1_number_1/currentsv1n1wilsonp29.pdf