RECONSIDERING "GEN Y" & CO:
FROM MINDING THE GAP TO OVERCOMING IT

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Introduction: 20 years of "mind the gap!"

One fundamental step to close the gap between "generation Y" and adult learners passes through an adequate comprehension of such a gap. In the last decades the debate was particularly focused on "minding the gap"; in the European year of "solidarity between generations" it is also necessary to understand how to move further.

It is remarkable that in 2011 we had "birthdays" of two expressions which led the discussion about education and new media: in 1991 "generation Y" was invented (Strauss & Howe, 1991), and in 2001 "digital natives" entered the debate (Prensky, 2001a; Prensky, 2001b). After more than twenty years of discussions, it is now time to overcome an understanding of the issue which replicates the gap...

This paper is intended to show why, both in theory and in practice, there are many good reasons to adopt a fresh perspective. Next paragraph will briefly outline the debate presenting main scholar voices, while par. 3 will present and discuss data from a research run, from winter 2008 to summer 2011, in academic institutions of Ticino (Switzerland).

The gap (in) theory

We can affirm that – since the 80s – the massive advent of Information and Communication Technologies (ICTs) has significantly impacted people everyday life: people grown up in such full-of-media environment have developed an unchallenged familiarity with ICTs. Furthermore, it is evident how much learning and teaching can profit and be empowered by new technologies. Due to that, many observers of the knowledge society have suggested the existence of a *generation of digital(ised) learners*, such theorization has gained a great success, and it has been adopted by scholars, educational professionals, teachers, journalists...

Looking at the evolution of the debate, it is possible to identify three approaches to that generational gap due to the different level of adoption of new technologies in everyday life and, as a consequence, in educational experiences (Rapetti, 2011): the *enthusiasts*, the *reactionaries*, and the *critics*.

Many voices, three views

Before getting into a schematic presentation of the three views, it is important to make it clear that this is just one possible systematization of a very extensive literature about the issue, and it is outside of the scope of this paper to provide a comprehensive review of the concerned literature (see, for instance: Barrio, Medina, Arroyo, & Garcia, 2010; Ferri, 2011; OECD-CERI, *forth*; Rapetti & Cantoni, 2010; Schulmeister, 2010).

To get an idea on how many voices populate the debate; it is interesting to know that the cohort of young people received the following labels: Boomer babies; Boomlets; Born digital; Digital kids; Digital Natives; Digital residents; Echo Boom; Gamers; Gen.com; Generation Next; Generation Tech; Generation Why; Generation XX; Generation Y; Generation 2000; Grasshopper Minds; Homo Zappiens; Instant-Message Generation; Millennials; Net generation; Net-agers; Next Great Generation; Nintendo Generation; Prozac Generation; Screen Generation; Coddled, adrift, and

slackers; Dumbest generation; Narcissist; Net addicted (to pointless activities); Shameless; The ones who click (instead of thinking); The ones who take Google as Gospel; Violent; online bullies…

The three views are a sort of compass to move within such a large and complex territory:

1. Enthusiasts (about the impact of ICTs on learners' skills and behaviours) are firmly convinced that digital technologies are making the generation of younger learners a very skilled one. Within them it is possible to further distinguish three different approaches, depending on the observed area of ICTs' effects on learners behaviours and attitudes:

   − The historic-sociological approach, stressing the differences between the current generation and the previous ones (e.g.: Howe & Strauss, 1991);
   − The psycho-cognitive approach, claiming that everyday usages of ICTs have changed the cognitive abilities of young people (e.g.: Prensky, 2001);
   − The socio-pedagogical approach, based on the paradox "everywhere ICTs, except at schools", asking for a reform/revolution in school and university systems (e.g.: Oblinger & Oblinger, 2005).

2. Reactionaries accept as well this idea of a digitalized generation of learners, but focus on the potential dangerous effects, such as violence, dumbness, harassment, addiction, etc.(e.g.: Bauerlein, 2008).

3. Criticsquestion the idea of characterizing the set of skills of the young generation simply in function of ICTs' usages, criticizing overgeneralizations, and requesting deeper studies and localized analyses (e.g.: Bullen, Morgan, Belfer, & Qayyum, 2009).

In order to ensure a comprehensive and adequate perspective to the issue of *Learners of Digital Era* (LoDE), characteristics underlined by *enthusiasts* as well as concerns expressed by *reactionaries* should be considered, taking into careful consideration all the limits pointed out by *critics*, especially when it comes to requesting solid research and not just anecdotal data or overgeneralizations. Such a balanced "LoDE perspective" has informed the research project named "Learners' voices @ USI-SUPSI", aimed to verify from the learners' point of view all the expectations and assumptions put over Gen Y people studying at the Università della Svizzera italiana (USI, University of Lugano), and at the Scuola Universitaria Professionale della Svizzera italiana (SUPSI, University of Applied Sciences and Arts of Southern Switzerland).

The gap in practice

It has to be said that, even if the theoretical production is enormous concerning Gen Y, for what concerns the effective knowledge of) their practices we can register a much lower number of works. Providing a solid evidence-based research about the characteristics of the *generation of digital learners* is much more complex than offering interesting but yet rather generic reflections about the future of didactics. As per today, the most appreciable contribution seems to be the New Millennium Learners research project run by OECD (OECD-CERI, 2010).

Learners' voices @ USI-SUPSI in brief

The research as a whole has been designed to combine a quantitative phase with a qualitative (quasi ethnographic) one (Rapetti, Ciannamea, Cantoni, & Tardini, 2010); in this paper answers to a set of relevant questions of the questionnaire are presented and discussed. Based on the protocol developed in a JISC consortium research project (JISC consortium, 2009), meant to explore the students' experience of technologies, the adopted questionnaire was structured in 25 questions, structured as follows:

1. Socio-demographic data (age, gender, course, country of origin).
2. Owned digital technologies.
3. Access to the internet.
4. Online activities and frequency of usage.
5. Most used applications.
6. The role of ICTs everyday life.
7. Learning preferences (in general and concerning ICTs).
8. The role of ICTs in studies/learning experiences.
9. eLearning perception.
10. Rationales in using ICTs for learning.

About the sampling, an anonymous self-selected sample was adopted, out of a target population of about 4,500 students, 562 valid answered questionnaires have been collected; the size of the number allows sound statistical data treatments and inferences. The final sample was composed as following.

Concerning gender, we had 318 (56.5 %) female respondents and 244 (43.4 %) male. This is the distribution among countries of origin. Both USI and SUPSI have an unquestionable international attitude, mainly due to the multilinguism of Switzerland, and the proximity to Italy. Therefore, does not surprise to find Switzerland at the first place (316 people, 56.2 % of total), but a significant presence of Italians (24.9 %) and a 12.5 % of people coming from the rest of Europe (grouping Germany, France, others-EU, and others non-EU); while participating students from Africa, Americas, and Asia all together are the 6.4 %. Among the respondents, 56.6% of students attended SUPSI and 45.4 % USI. Concerning the detailed repartition in departments, the two bigger groups were students attending the Faculty of Communication Sciences at USI (25.6 %) and the Department of Business and Social Sciences at SUPSI (24.6 %).

Finally, the age variable details: the mean is 24.5 years; the median is 23 years; the age ranges from a minimum of 17 years and a maximum of 75 years. The whole was divided into three "age groups": 17 to 23 years (58.5 % of the sample), from 24 to 29 (28.1 %) and 30 and over (13.3 %). This is primarily aiming to highlight any possible differences between LoDE belonging to Gen Y – namely, born after 1980 – and the others, who had in 2009, more than 30 years. Furthermore, was interesting to offer a further comparison within the Gen Y itself (Tardini, Rapetti, Ciannamea, & Meschitti, 2010).

Learning preferences expressed by LoDE

In Learners Voices @ USI-SUPSI questionnaire, one of the key-questions was a grid titled "Which is your favourite strategy to learn?" (question 5.2); participants had to choose among the following options: Lectures in classroom, Individual study, Individual lesson, Printed dictionary/encyclopaedia, Multimedia supports, Online platform (eLearning), Search engines, Websites/specialized blogs, Social networking sites, Wikipedia. People were asked to indicate which strategies they preferred, and how much (a lot, fairly, a little, not at all).

The following image shows a quite astonishing result: respondents do not express a learning-style pattern digitally oriented.
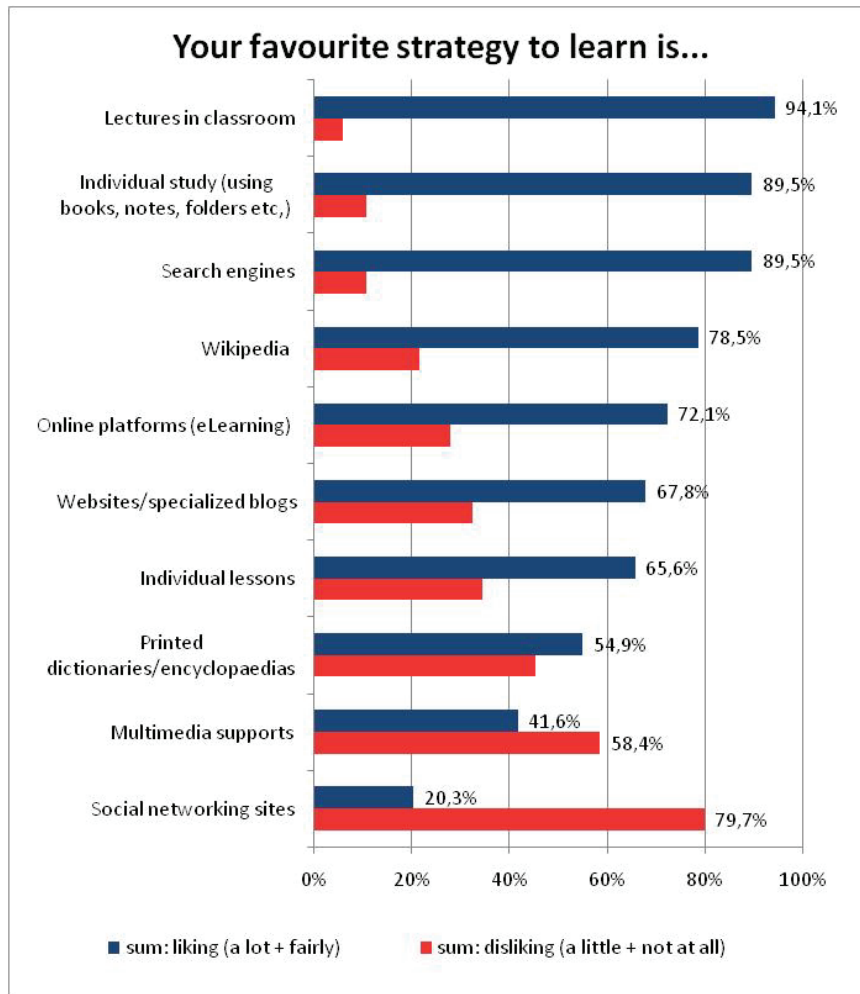

Figure 1. The favourite strategies to learn (q.5.2) – total 512 (50 missing); data expressed in %

The most important piece of information outstanding from such results is that LoDE do express a clear preference for "classical" way to learn, despite they live in a digitalized context of learning. About 9 people out of 10 prefer "lectures in classroom", "individual study", and "search engines" to learn.

If looking only at "a lot" answers, the picture does not change: in the first place there are "search engines" (57.2 %), followed by "lectures in classroom" (52.3 %), and "individual study" (50.8 %); all the other choices are preferred "a lot" by less than half of the sample. LoDE, according to such data, is likely to be more analogue-styled than digital-styled in learning behaviours.

Likewise, at the bottom of the list we find "multimedia supports" and "social networking sites" (in this last case "not at all" accounted for 48.0 % of respondents); such a rejection of social networks suggests that an expectation of a learning transfer from informal to formal learning experiences would not be that solid. An important reflection must be done about the rankings of search engines and Wikipedia versus printed dictionaries and encyclopaedias: it seems that the former ones have fully taken the place of the last ones, most probably because of convenience in terms of speed and cheapness.

A step beyond a simple descriptive analysis was needed, in order to investigate the corpus of assumptions related to socio-demographic aspects expected to influence the adoption and/or the preference of digital technologies in education. Indeed, a relevant part of the literature by *enthusiasts* claims that being younger is a strong predictor of ICTs-attachment for learning needs.

Beside question 5.2, already presented, questions 4.4 and 8.1 have been useful to such enquiry. Question 4.4 was a grid in which respondents had to express "how much ICTs improved" the following aspects of life: The way you practice your hobby or interests, The way you do your student's tasks, The way you learn, The way you have relationships with your friends or your family, The way you share your ideas or creations, The way you collaborate with your peers. Possible answers were: a lot, fairly, a little, not at all. Question 8.1 required respondents to express their agreement/disagreement about a list of statements concerning eLearning and the importance of ICTs in educational experience: eLearning is an important element of my courses, Without eLearning I would be unable to study, eLearning is one of a number of important components of my courses, eLearning makes courses more enjoyable, My university is not very smart in the way it uses eLearning, With eLearning I interact more with other students, I find difficult to use a computer, I find difficult to use technological devices (e.g. Pda/mobile phone/mp3 player), Having access to a computer connected to the internet is a problem for me, eLearning makes learning easier for me, It would be good if there were more eLearning in my course.

Crosstabs procedure was run for all possible crossings between items of questions 8.1, 5.2, 4.1, and "age classes". In order to verify any statistical influence, 81 tabs were analysed applying Pearson's Chi-Square to check the assumed relationship; while to determine its nature Cramer's V value (converted in %) was used. Such a procedure makes it possible to answer the question: *does Age make any statistically relevant difference?* Out of 81 crossings, Pearson's values resulted significant in 8 cases, meaning "age classes" variable was proofed to have a statistical influence. Nonetheless, this influence is interesting only in two cases (highlighted in bold in the following three tables).

Table 1:   Crosstabs' synthetic results "age classes" * question 4.4

The fact of being older...	...increases of...	...the likelihood to consider that ICTs improved significantly...
	0.8 %	"the way you practice your hobby or interests"
	0.5 %	"the way you do your students' tasks"
	0.1 %	"the way you learn"
	3.9 %	"the way you collaborate with your peer"

Table 2:   Crosstabs' synthetic results "age classes" * question 5.2

The fact of being older...	...increases of...	...the likelihood to be more in favour of...
	0.2 %	"lectures in classroom"
	0.6 %	"printed dictionary/encyclopaedia"
	0.3 %	"online platforms (eLearning)"

Table 3:   Crosstabs' synthetic results "age classes" * question 8.1

The fact of being older...	...increases of...	...the likelihood to answer that...
	4.0 %	"It would be good if there were more eLearning in my courses"

As tables show, the age factor does explain – when it does it – just a very small portion of noted differences: overall, data indicate that the older the learners, they are 4.0 % more likely to ask for more eLearning, and 3.9 % more likely to declare that ICTs impacted on the way they collaborate with their peers.

Conclusions

This brief account of a much wider research has proved that within the studied community of learners age does not matter at all, or explains very little, when it comes to preferences and beliefs connected with ICTs in learning, no gap exists between younger generations and their 30+ colleagues.

The image emerging from such results suggest that LoDE do prefer a quite rich learning diet, encompassing both face to face, established media and new media; only encyclopaedias and dictionaries appear to be outdated, and clearly substituted by their online counterparts, which play a major role for (quick) information search and retrieval. A very little preference for educational usages of social networks suggests, moreover, that LoDE are not ready/interested to adopt such applications for their learning in the university, maybe keeping them just for informal learning.

Of course, being "Learners' voices at USI-SUPSI" run at university institutions of a regional area of Switzerland, outcomes of our research call for further and deeper analyses meant to compare different variables; especially the ones related to differences between countries/cultures, and levels of schools.

In conclusion, such results suggest deepening studies about the *media convergence* issue (Rivoltella, 2006). Learners of digital era seem to be larger than dominant/*à la page* descriptions about them. They are not ICTs-addicted, neither techno-luddites (Cantoni & Tardini, 2010); rather they arrange the best learning environment, adopting new and old media, in order to fit and respond to their educational needs and interests.

References

1.   Barrio, F.G; Medina, J.F.D., Arroyo, R.G. and García, F.G. (2010). *Una taxonomía del término "nativo digital". nuevas formas de relación y de comunicación.* http://gabinetecomunicacionyeducacion.com

2.   Bauerlein, M. (2008). *The dumbest generation: How the digital age stupefies young americans and jeopardizes our future (or, don't trust anyone under 30).* London: Penguin Books.

3.   Bullen, M.; Morgan, T.; Belfer, K. and Qayyum, A. (2009). The net generation in higher education: Rhetoric and reality. *International Journal of Excellence in E-Learning, 2(1)*

4.   Cantoni, L. and Tardini, S. (2010). Generation Y, digital learners, and other dangerous things. In *QWERTY Journal of Technology, Culture, and Education, 5(2),* Special Issue on "Generation Y, Digital Learners and Other Dangerous Things", (pp. 11-25).

5.   Ferri, P. (2011). *Nativi digitali.* Milano: Bruno Mondadori.

6.   JISC consortium. (2009). *The learners' voices project outcomes.* http://www.jisc.ac.uk/whatwedo/programmes/elearningpedagogy/learneroutcomes/learnervoices

7.   Oblinger, D. and Oblinger, J. (Eds.) (2005). *Educating the net generation EDUCAUSE.* Retrieved from http://www.educause.edu/educatingthenetgen/

8. OECD-CERI. (2010). *Are the new millennium learners making the grade? Technology use and educational performance in PISA.* Paris: OECD-CERI publishing (Centre for Educational Research and Innovation) Education: Educational Research and Innovation.

9. OECD-CERI. (2012 – forthcoming). *Connected minds.* Paris: OECD-CERI publishing (Centre for Educational Research and Innovation) Education: Educational Research and Innovation.

10. Prensky, M. (2001a). Digital Natives, Digital Immigrants — A New Way To Look At Ourselves and Our Kids. *On the Horizon, 9(5)*, (pp. 1-6).

11. Prensky, M. (2001b). Digital Natives, Digital Immigrants, part II: Do they Really Think Differently? *On the Horizon, 9(6)*, (pp. 1-9.)

12. Rapetti, E. (2011). *The knowledge society between "smart devices" and "digital learners". A pedagogical-anthropological reflection about the implications of dominant rhetoric in eLearning field.* In L. Cantoni, P. Dillembourg& D. Euler (Eds.), Proceedings of the red-conference: Rethinking education in the knowledge society (Ascona, Switzerland, 7-10 march 2011). Lugano (Switzerland): Università della Svizzera italiana.

13. Rapetti, E. and 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.* Edu-Learn 2010 Conference Proceedings, Barcelona, Spain. (pp. 1403-1412).

14. Rapetti, E.; Ciannamea, S.; Cantoni, L. and Tardini, S. (2010). *The voice of learners to understand ICTs usages in learning experiences: A quanti-qualitative research project in Ticino (Switzerland).* Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2010, Toronto. pp. (pp. 2527-2536).

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

16. Schulmeister, R. (2010). Deconstructing the media use of the net generation. In *QWERTY Journal of Technology, Culture, and Education, 5(2)*, Special Issue on "Generation Y, Digital Learners and Other Dangerous Things"

17. Strauss, W. and Howe, N. (1991). *Generations: The history of America's future, 1584 to 2069.* New York: Quill (1st ed.).

18. Tardini, S.; Rapetti, E.; Ciannamea, S. and Meschitti, V. (Eds.). (2010). *Learners' voices @ USI-SUPSI.* Lugano (Switzerland): Università della Svizzera italiana e Scuola Universitaria Professionale della Svizzera italiana: Elab& Servizio Gender.

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