

The Ne(x)t Generation Students: Needs and Expectations

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Introduction

In the eLene-TLC project (www.elene-tlc.net), financed by the e-learning programme of the European Commission, the central topic is preparing universities for the ne(x)t generation of students. One of the activities performed in the project was a research amongst first -year students in six European countries (France, Germany, Italy, the Netherlands, Spain (Cataluña) and Sweden).

According to the literature, the generation of students that comes to our universities is changing. They are in a so-called 'ICT-default' mode and learn in a different way. Often this generation is called the 'net-generation' (Tapscott, 1998, 1999; Oblinger and Oblinger, 2005). By using the term 'net-generation', we mean the youth that is born after 1980 and grew up with ICT. Others use different terms to express the more or less same group of youngsters, like 'homo zappiens' (Veen, 2000), 'digital natives' (Prensky, 2001), 'millennials' (Howe and Strauss, 2000), 'Generation Einstein' (Boschma and Groen, 2006) or Google generation (JISC, 2008).

In the literature, authors assign the following characteristics to this group:

- Fast and impatient
- Learning by doing
- Result-oriented
- Social and interactive
- Multi-tasking
- Visually oriented
- Connected and mobile

Do the characteristics of current 1st year students at the universities match the characteristics as presented in the literature? Do universities need to take these characteristics into account regarding its future teaching and learning processes? If so, in what way?

The main research question was: What do first-year students in higher education need and expect from Information and Communication Technology (ICT) in their learning process?

In the next paragraph we focus on the characteristics of this net-generation.

First, we started to find out how realistic the characteristics of today's youth as described in the literature were. In the research not only students were questioned but also teachers.

Research Method

The student and teacher research was carried out in six European countries: France (Université Nancy2), Germany (Bremen University), Spain (Universitat Oberta de Catalunya), Sweden (Umeå University), Italy (Metid polytechnic) and the Netherlands (Utrecht University). The target group of this research were 1st year students in higher education. Each partner was supposed to arrange three group interviews of maximum five students each from their own university or polytechnic. A semi-structured interview list was used and all interviews were recorded and transcribed. No instructions were given on the age, gender, ICT-knowledge or

specific program of the students.

The teachers research was carried out in the same six countries. The target group were university teachers that were open minded to new developments in education and / or (had) participated in projects with a focus on ICT. No other instructions were given on the age, gender or specific program. Each partner was expected to interview five teachers individually. A semi-structured interview list was used and the interviews were recorded and transcribed afterwards.

Results

In the research we performed within the eLene-TLC consortium 96 students and 30 teachers were interviewed or filled in an online questionnaire. For various reasons (e.g. small samples, uneven distribution of students among countries and different data collection methods) we did not make use of advanced statistical methods. Therefore, we interpret the results as indications rather than facts.

The previously described characteristics are reformulated into thirteen statements. Students and teachers were asked to indicate on a five points scale to what extent they (dis)agreed with the statement (1=totally disagree, 5= totally agree). The statements for the students were formulated in the 'I' form, teachers statements were formulated in the 'students' form.

In table 1 the thirteen statements are grouped into seven topics. Per target group (students and teachers) the mean of each country is presented. A number in bold indicates the most important statement per country, a number in italics the second ranked and an underlined number means the least important statement.

Statements grouped	Students						Teachers					
	ES	FR	GE	IT	NL	S	ES	FR	GE	IT	NL	S
Fast and impatient	2,5	3,4	3,3	3,2	3	3,3	3,6	3,4	<i>2,9</i>	3,4	3,5	<i>2,7</i>
Learning by doing	<i>1,7</i>	<i>0,7</i>	2,8	2,7	<i>2,8</i>	<i>2,8</i>	<i>2,8</i>	3,4	3	3,5	3,4	3,4
Result oriented	3,6	2,7	3,4	<u>4,4</u>	4,1	3,3	4	4,2	<u>3,5</u>	4,3	4	3,4
Social & interactive	4	4,4	3,5	4,6	4,3	<u>4,1</u>	3,7	3,4	3,7	3,9	4,3	3,7
Simultaneous activities	<u>3,7</u>	4	<u>3,7</u>	3,1	4,1	4,4	3,6	3,3	<u>3,5</u>	3,8	<u>4,2</u>	<u>3,8</u>
Visually	3,2	3,2	<i>2,2</i>	<i>2</i>	2,9	<i>2,8</i>	<u>3,9</u>	3,4	3,4	3,2	3	3,9
Connected & mobile	2,4	<u>4,1</u>	3,8	2,5	<u>4,3</u>	3,6	3,7	<u>3,5</u>	3,4	<u>4</u>	3,7	3,5

Table 1: Characteristics of nowadays first year students (average of answers)

Most students indicate that 'being social and interactive' is an important characteristic. Teachers of Germany and the Netherlands indicate that nowadays students are 'social and interactive'. Teachers from three other countries rank that 'result oriented' is the most

important characteristic. To a certain extent students and teachers also agree that students are multi-tasking: they perform simultaneous activities and connected and mobile. Interestingly, we did not find indications for 'learning by doing' and students 'visual orientation', which is often ascribed to nowadays youth.

The first-year students in higher education that were involved in our research expect that:

- ICT is up-to-date
- their university doesn't need to be a front runner
- there is Wifi on the campus
- they have fast communication with their teachers by email
- there is a virtual learning environment available
- Web lectures are offered (as a service)

Implications for universities

Based on the results of the research, we formulated implications for the teaching and learning process. What teaching and learning methods fit the ne(x)t generation of students best? The conclusion that being social and interactive is an important characteristic of the ne(x)t generation of students fits the social constructivist, active and authentic-learning theories. Concrete examples are integrating collaborative activities and peer feedback into the learning process. An even more concrete example is students working in teams on authentic tasks. This can be facilitated by, for example, virtual learning environments, a wiki or blog and videoconferencing. By introducing peer feedback in the learning process, students are challenged to have a look at the material of others from a different and constructive perspective. The annotation tool is designed to support this feedback amongst peers.

Finally, universities do not necessarily be frontrunners with regards to ICT but their ICT infrastructure and tools should be up-to-date.

On behalf of the eLene-TLC consortium,
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- Universitat Oberta de Catalunya – UOC
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