Exploding the myth behind the Net & Google Generations

the Generation game

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the timeline ... 

2005: what is a generation?

2001: digital natives, digital immigrants ...

2007: in their own words ...

2007: student expectations study ...

2008: great expectations report ...

2008: the google generation ...

2009: becoming digital literate ...

now: the generation game ...

now: any questions?
what is a generation?

“In addition to coincidence of birth, a generation is also defined by common tastes, attitudes, and experience...Those times encompass a myriad of circumstances – economic, social, sociological, and, of course, demographic.”

some generalisations ... 

<table>
<thead>
<tr>
<th>Birth Dates</th>
<th>Silent Generation</th>
<th>Baby Boomers</th>
<th>Generation X</th>
<th>Net Generation</th>
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| Attributes | Technologies | | Technologies | | Technologies | | Technologies | | Technologies |
|------------|--------------| |--------------| |--------------| |--------------| |--------------|
|            | Cinema       | | Television   | | Video Games  | | The Internet | | The Internet |
| Likes      | Telegraph    | | Telephone    | | Walkie Talkie| | Cell Phone   | | Cell Phone   |
|            | Biro Pen     | | Telex        | | E-mail       | | I.M.         | | I.M.         |
| Dislikes   | Radio        | | Vinyl Record | | Compact Disc | | MP3          | | MP3          |

meet Marc
who is Marc Prensky?

Marc is an internationally acclaimed thought leader, speaker, writer, consultant, and game designer in the critical areas of education and learning. He is the founder and CEO of Games2train, a game-based learning company. He holds an MBA from Harvard and a Masters in Teaching from Yale.

Source: www.marcprensky.com
## the digital divide ...

<table>
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**Digital Immigrant**

**Digital Native**

enter the Digital Natives ...
have grown up and surrounded by digital technologies ...

ubiquitous digital environment has resulted in thinking and processing information differently ...

suggests that their brains have physically changed ...

... native speakers of a digital language have parallel processing & multi-tasking abilities ...

have hypertext minds ...

zero tolerance for step-by-step instruction ...

prefer visual information ...

the digital language ...

“Today's teenagers live and breathe the wired world of the internet ... They dig MoSoSo, Moos and MySpace. They can Google, Bebo, Skype, blog or podcast - frequently all at once. They log on to the internet daily, sometimes hourly, seeking anything from entertainment to therapy. For teenagers, the internet is not just an information tool or a way to send emails. It has become a creative and dynamic social force.”

Source: Atkins, L. (2007). Can u speak teenager? The Telegraph. 24.03.07
exit the Digital Immigrants ...
have **sequential processing & linear abilities** ...

don’t **understand** the **new ways** in which the Digital Native **learns** ...

... **speaks** with an outdated **language**

**speak** with an “**accent**”...

**teaching** should **not** be fun ...

**prefer** step-by-step instruction ...

**prefer** **textual information** ...

the digital **continuum** ...

digital native

digital colonist

digital refugee

digital savage

digital settler

digital dissident

digital explorer

digital pioneer

digital immigrant
under investigation ...
"Why suddenly is there greater demand for [the] drug [Ritalin] for attentional problems? This might, and I stress might, be something to do with the increased exposure of young children to unsupervised and lengthy hours in front of a [computer] screen ... they get used to and their brains get used to rapid responses."

what the **papers** say ...

Man or mouse: the danger of the computer's memory

Roger Boyes: Commentary

Our Latin teacher, Captain Hogarth, a psychologically scarred veteran of some great, distant battle, would whack us over the knuckles with his leather-bound swag bag if we so much as fluffed a dative. "Sine labore nihil!" he would bawl – nothing done. Yes, those were the days. How much black energy is pumped into drilling us – quick 93 times 82 – with the aim of sharpening our reflexes, training us to obey orders, or perhaps, of sharpening our reflexes, training us to obey orders? Content was not so important as speed of recall. The untruthful often recite under pressure. That is the way wars are won and lost.

We were aware at the time that rote learning had only limited utility in the outside world. Even the football sage Bill Shankly found it impossible to measure the extent of it. "Me havin' no education, I had to use my brain." But after leaving school the brighter pupils burst into creative flower while the thicker nonetheless had a toehold in life. They could multiply in their head, recite verse, understand chemical formulas, spell, sometimes play music by ear – which stood them in good stead for a lifetime.

On Wednesday I received 72 e-mails, not counting junk, and two text messages. It was a quiet day but, then again, I'm including the telephone calls. I'm not among the dwindling and pointless announcements on a train journey to Woking: "Please use a screen, lads – the piercingly loud telephone conversation of unsocialised adults and the screaming of untamed babies is the last straw.

There were 38. Oh and I'd rather throw in the 40 news alerts that I receive from all the websites I monitor on iPhone.

Google generation has no need for rote learning

From The Times

December 2, 2008

Google generation has no need for rote learning

From The Times

July 20, 2008

Stooopid .... why the Google isn't as smart as it thinks.

The digital age is destroying us by ruining our brains.

Bryan Appleyard

Alexandra Frean, Education Editor

School Gate blog: Tips for remembering facts...

Memorising facts and figures is a waste of time for most schoolchildren because such information is readily available a mouse click away, a leading commentator has said.

The existence of Google, Wikipedia and online libraries means that there is no useful place in school for old-fashioned rote learning, according to Don Tapscott, author of the bestselling book Wikinomics and a champion of the "net generation."
a moral panic?

“proponents arguing that education must change dramatically to cater for the needs of these digital natives have sparked an academic form of ‘moral panic’ using extreme arguments that have lacked empirical evidence.”

In Their Own Words
Exploring the learner’s perspective on e-learning
about the report ...

A two phased study ...

looking at the learner experiences of e-learning ...

synthesises the LEX project report and learner voice video case studies ...

captures e-learning experiences across a wide range of age groups (16 to 65+), sectors (HE, FE, ACL & WBL) and courses (economics, languages, medicine & computing) ...

data capture consisted of face-to-face interviews, focus groups, digital artefacts (e.g. blog or e-portfolio) ...

Source: JISC. (2007). In Their Own Words. HEFCE
lead complex lives, requires sophisticated time management skills ... 

*Boundaries* between learning and life is becoming blurred ... 

control & *choice* important – personalise learning environment with technologies (mobile phones, laptops, PDAs, iPods) that *support* learning and are *meaningful* to learner ...

*Want* tutors to be *fully engaged* with e-learning ... 

*Effective e-learners:* flexible, resourceful, self aware & highly motivated ...

*Search engines* *preferred* to libraries ... 

*Use* standard software to *create, manipulate & present* content ...

*Peer support* provided by family & friends using e-mail, texting, instant messaging & Skype – providing an “*underworld*” of communication & info-sharing *invisible* to tutors ...

*Source:* JISC. (2007). *In Their Own Words*. HEFCE
Student Expectations Study
about the study ...

small study made of interviews (n=27) and online survey (n=501) 15 – 18 years of age ...

varying ICT abilities ...

mixture of school / sixth form & further education students ...

expectations of ICT provision in University ...

Source: Ipsos MORI. (2007). Student Expectations Study. JISC.
generally **technologically adept** and **integrated** it into lives ... 

**cautious** about publishing work for **public scrutiny** ... 

**not interested** in technology for “own sake”, only as a means to an end ... 

**face-to-face** interaction with a lecturer is a “back bone” to learning ... 

**suspects** that learning mediated through technology could **diminish** the **value** of learning ... 

unable to make the **connection** on how technology can help them **learn** ... 

**Source:** Ipsos MORI. (2007). *Student Expectations Study*. JISC.
Great Expectations of ICT
how Higher Education Institutions are measuring up

Research Study Conducted for the Joint Information Systems Committee (JISC) - Report June 2008
about the **study** ... 

follow up of **student expectations study** ...

**online survey** (n=1111: cohort=112; booster=999)

17 – 19 years of **age** ...

respondents are **already receptive** to technology ...

cohort group **perceived** to be more **technologically fluent** than booster group ...

cohort group invited to **online focus group** ...

HEI’s are perceived as providing a good basic level of ICT ...

student expectations are met, sometimes exceeded ...

certain technologies (e.g. online quizzes) can appear familiar and hence comfortable for new students to use ...

students who set up their own collaborative learning mechanism are more engaged with it than when tutors set them up ...

students don’t perceive HEIs are leading the way in developing new methods of learning that will encourage them to think differently about information, research and presentation ...

emerging evidence that student-driven ICT, e.g. Web 2.0, is very beneficial in their learning ...

69% of students believe they critically evaluate internet sources used for research ...

Source: Ipsos MORI. (2008). Great Expectations of ICT. JISC.
challenges for HEIs introducing **ICT** ...

information behaviour of
the researcher of the future
11 January 2008
who are the google generation?

“... a phrase that refers to a generation of young people, born after 1993, that is growing up in a world dominated by the internet; whose first port of call for knowledge is the internet and a search engine, Google being the most popular.”

... unlike earlier generations who “gained their knowledge through books and conventional libraries.”

about the report ...

commissioned by JISC & British Library ...

examines how researchers of the future will access & interact with digital resources, i.e. information seeking behaviour ...

“virtual” longitudinal study ...

critical review of published researched over the past 30 years ...

deep log analysis of two live systems aimed at a range of age groups ...

older users catching up fast with technology usage ...

parallel processing may be well developed, but what about sequential processing abilities? (i.e. reading)

prefer visual information over text, but text is still important ...

all generations have “zero tolerance” for information delays ...

internet usage – determined by individual / personality / background NOT generation ...

value authority figures over the Internet for information ...

more people are doing quick, shallow searches, i.e. “power browsing” ...

Techniques for Gathering Student Views of their Experiences at University

A Report from the LEaD Project
about the study ...

... aim was to understand the impact of technology, both institutional and personal, on students’ transition to university and how this changed as they progressed through their critical first year ...

looked at the student year through students’ own voices ...

adopted a learner-centred and holistic approach ...

scrutinised three disciplines in depth (divinity; physics; veterinary medicine) ...

data capture consisted of face-to-face interviews, focus groups, surveys and reflective diaries ...

Source: LEaD. (2009). ICT & the Student First Year Experience. JISC.
students are **confident** with technology and have **high expectations** ...

... however, there is a **risk** in assuming too much about their use of technology ... do not always **recognise** the **potential** of technologies that they have as **learning devices** ...

**technology** is part of students’ lives: the term e-learning does not **mean much** to them ...

students are **social**; learning and support often takes place **informally** in groups, often **facilitated** by technology ...

use of technology should be based on **needs** and be **education driven** not technology or product driven ...

**skills** do not belong to a particular generation ...

**Source:** LEaD. (2009). *ICT & the Student First Year Experience*. JISC.
Higher Education in a Web 2.0 World

Report of an independent Committee of Inquiry into the impact on higher education of students’ widespread use of Web 2.0 technologies

March 2009
the division between the digital ‘haves’ and ‘have nots’, has not been entirely overcome …

use of Web 2.0 technologies is high and pervasive across all age groups from 11 to 15 upwards …

use of Web 2.0 technologies leads to development of a new sense of communities of interest and networks …

developing 21st-century employability skills – communication, collaboration, creativity, leadership and technology proficiency …

information literacies, inc. searching, retrieving, critically evaluating information, attributing it – represent a significant and growing deficit area …

students are unable to conceptualise how technology used in a social context can be used for learning as well …

staff capability with ICT is a further dimension of the digital divide …

Source: CLEX. (2009). Higher Education in a Web 2.0 World, JISC.
the digital population ...

“Rather than calling Digital Natives a generation – an overstatement, especially in light of the fact that only 1 billion of the 6 billion people in the world even have access to digital technologies – we prefer to think of them as a population ...

The vast majority of young people born in the world today are not growing up as Digital Natives.”

“Although many have found the terms useful ... the distinction between digital natives and digital immigrants will become less relevant ... I suggest we think in terms of digital wisdom.”

what is digital literacy?

"the ability to use digital technology, communication tools or networks to locate, evaluate, use and create information."

developing **digital literacy** skills …

- trust
- evaluation
- risk
- identity
- awareness

**understand** textual, visual, auditory & kinaesthetic **information**

- copyright
- accountability
- technology
- confidence

**authorship**

- communication

**reflection**

- adaptability
- privacy
- ethics

**cricality**
becoming e-literate ...

“if you think about learner experiences across the curriculum through the life path, as something learners have to understand and make sense of themselves and of empowering learners to be effective, then we start to think about digital literacies ... This really is the area that ... institutions and anyone interested in learning needs to be thinking about.”

“Giving children and young people the skills and tools that they need to participate in Digital Britain is of critical importance from both a social and economic perspective. If we are to truly maximise the potential of these digital economy and the benefits it can bring to all sections of society, we must ensure that children and young people are confident and empowered to access, use and create digital media.”

concluding thoughts ...

terms like “digital native” and “digital immigrant” are neither useful nor appropriate – just reinforces the stereotype ...

“digital efficacy” is determined by individual / personality / background / opportunity factors ... not a generation!

parents, teachers, governments could do more to understand the digital world that our children live in and influence the way they interact with it to build a better digital future – through digital literacy ...

rigorous research is needed to understand how today’s student learn and how learning is being enhanced with technology – studies need to show students from all spectrums of the learning continuum ...
let’s play, the generation game ...
what’s your generation?

0 – 1 pnts  Silent Generation
2 – 6 pnts  Baby Boomers
6 – 12 pnts Generation X
12 or over Net Generation

any questions