



ARCADA

All youngsters are Digital Natives, aren't they?

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Research topic

- Observations
 - Young people google their way through
 - Young people have grown up surrounded by ICT, media and mobile technology
- Hypothesis
 - Ubiquitous access to information has changed their view on knowledge and learning, their **personal epistemologies**
 - This change is pronounced among **Digital Natives**



Digital Natives?

- Generation Y, Digital Natives (Prensky 2001), Millennials (Howe & Strauss, 2000) ...
- Born after mid 1980's
- Grew up surrounded by ICT and new media
- Lack a personal history of the time before the internet, Google and mobile phones
- Are said to be (Anderson 2008):
 - proficient ICT users
 - just-in-time-learners
 - confident to find the information they need whenever they need it

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Assumptions

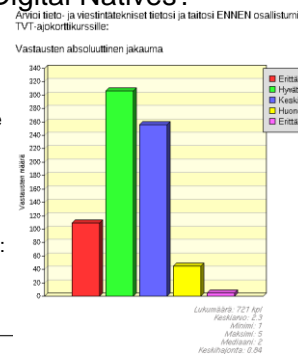
- All youngsters are Digital Natives
- All youngsters are proficient in ICT
- All youngsters should pass the ICT Level Tests

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Are all youngsters Digital Natives?

- Unsystematic observations
 - failed ICT Driving License Examinations
 - support requests at Helpdesk, library and language teachers
 - self assessments (source: University of Helsinki)



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Current study

- Part of a larger study regarding
 - ICT & media habits (survey)
 - ICT skills (tests)
 - epistemic beliefs (survey)
- Population
 - 534 first-year students autumn 2011
- Sample
 - 460 students performed level tests
 - international students from 19 countries
 - 395 domestic students (aged 18–49, Stdev. 3.95)
 - excluded "seniors"
 - 379 domestic students (aged 18–28, Stdev. 1.88)
 - 206 female, 173 male students

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ICT Driving License Level Tests

1. Basic use of computers, files and programs, internet and e-mail
2. The computer environment at the University
3. Modifying and presenting data, covering word processing, spreadsheet calculation and slide shows
4. Information seeking in library catalogues and reference databases
5. Information security and privacy protection

(ICT Driving License developed at University of Helsinki)

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Overall ICT skills

- All modules
- 11 % poor skills

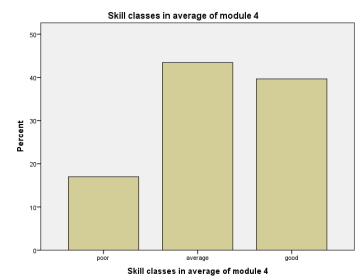


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Googling ≠ information retrieval!

- Module 4
- 17 % poor skills

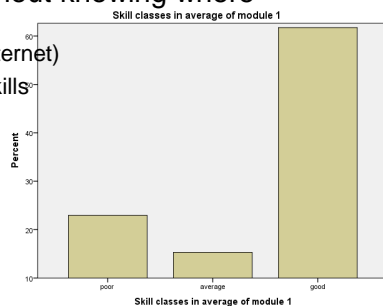


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Surfing without knowing where

- Module 1 (internet)
- 23 % poor skills



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Lacking basic tools

- Module 3
- 35,6 % poor skills



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Are they all Digital Natives?

- Not 100 % in this sample!
- Challenge
 - Distribution?
 - Clusters, groups?
 - Causes?
 - Background?

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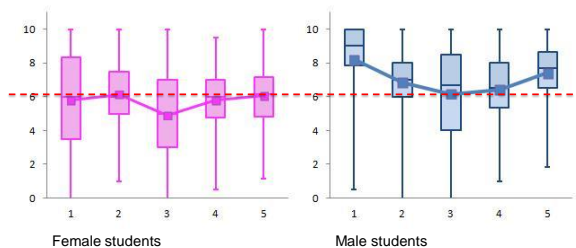
Access to ICT is not vital!

Access to computer (desktop, portable or laptop)	Average of modules 1, 3, 4 and 5			Total
	poor	average	good	
access exclusively for my own use	34	149	125	308
access any time I need it, shared with other people	6	20	6	32
limited or inconvenient access	0	6	2	8
no access	1	4	4	9
Total	41	179	137	357

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Is it all about gender differences?

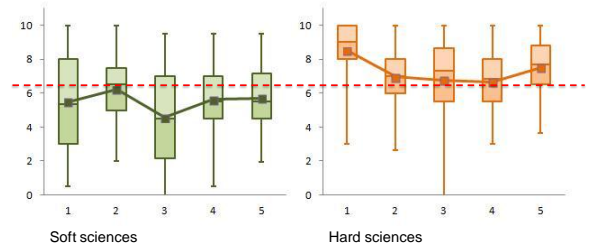


Level test scores in modules 1-5

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Disciplinary differences



Level test scores in modules 1-5

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Degree Programme	Science base	N	Female/ Male	Mean Score Difference / gender
Plastics Technology	hard	14	5/9	No significant differences
Sports & Health Promo	mixed	23	13/10	
Emergency care	mixed	19	8/11	
Film&TV	mixed	29	11/18	
Social Services	soft	29	24/5	difference in 1, 3 and 5
Business Administration & International Business	mixed	81	43/38	
Physiotherapy	mixed	27	17/10	
Tourism	mixed	25	20/5	
Distributed Energy Sys	hard	28	3/25	Not analyzed (no difference)
Information & Media Technology	hard	40	3/37	
Nursing	soft	45	41/4	
Occupational Therapy	soft	19	18/1	
Total		379	206/173	

Googling approach, just-in-time-learners

- Factor including five items
- No difference hard/soft science students
- No gender difference
- No difference good/poor skills students

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Reliance on Internet & wiki

- Factor including five items
- Hard science students more reliant in four out of five variables
- Male students more reliant in four out of five variables
- No difference good/poor skills students

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Future research ...

- Is it about ...
 - attitudes?
 - interest?
- Data based approach
 - Grounded theory?
- Instrument error?
 - The ICT Driving License reflecting an ICT culture from the 1990ies?
 - Moving from ICT to Media Literacy

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References

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