

A person wearing a blue shirt is looking at a laptop screen. The screen displays a network diagram with white lines connecting various nodes. The background is a bright yellow sunburst pattern.

U-Learning: Education for a Mobile Generation

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Digital Shift

‘Our students have changed radically. Today’s students are no longer the people our educational system was designed to teach (Marc Prensky, 2001)



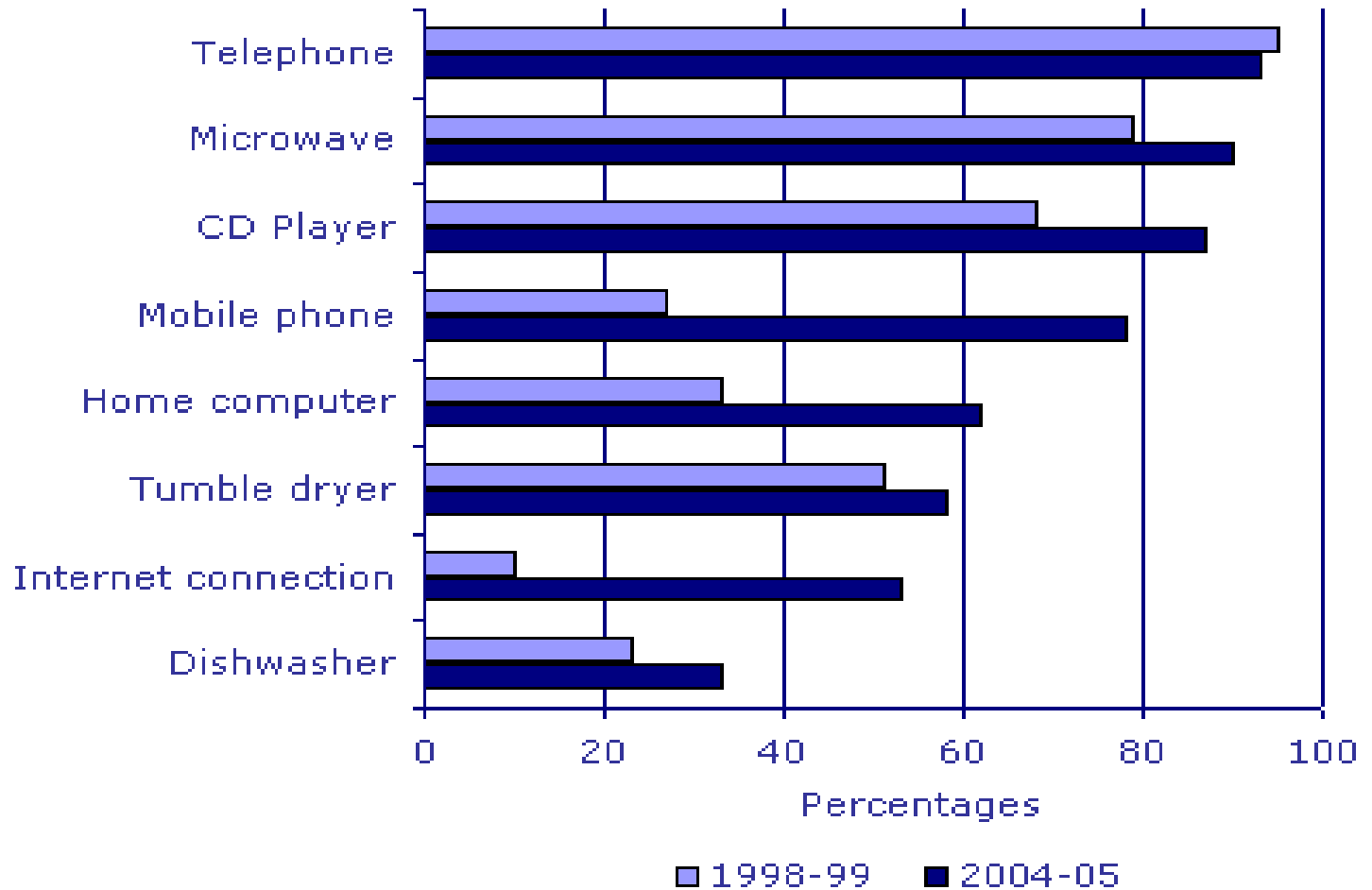
Digital Shift

By the time they reach 21 most young people in the UK will have:

- *Sent over 200,000 text messages*
- *Played 10,000 hours of videogames*
- *Watched over 20,000 hours of TV*
- *Talked 10,000 hours on mobile phones*
- *Seen over 500,000 TV adverts*
- *Spent less than 5,000 hours reading*

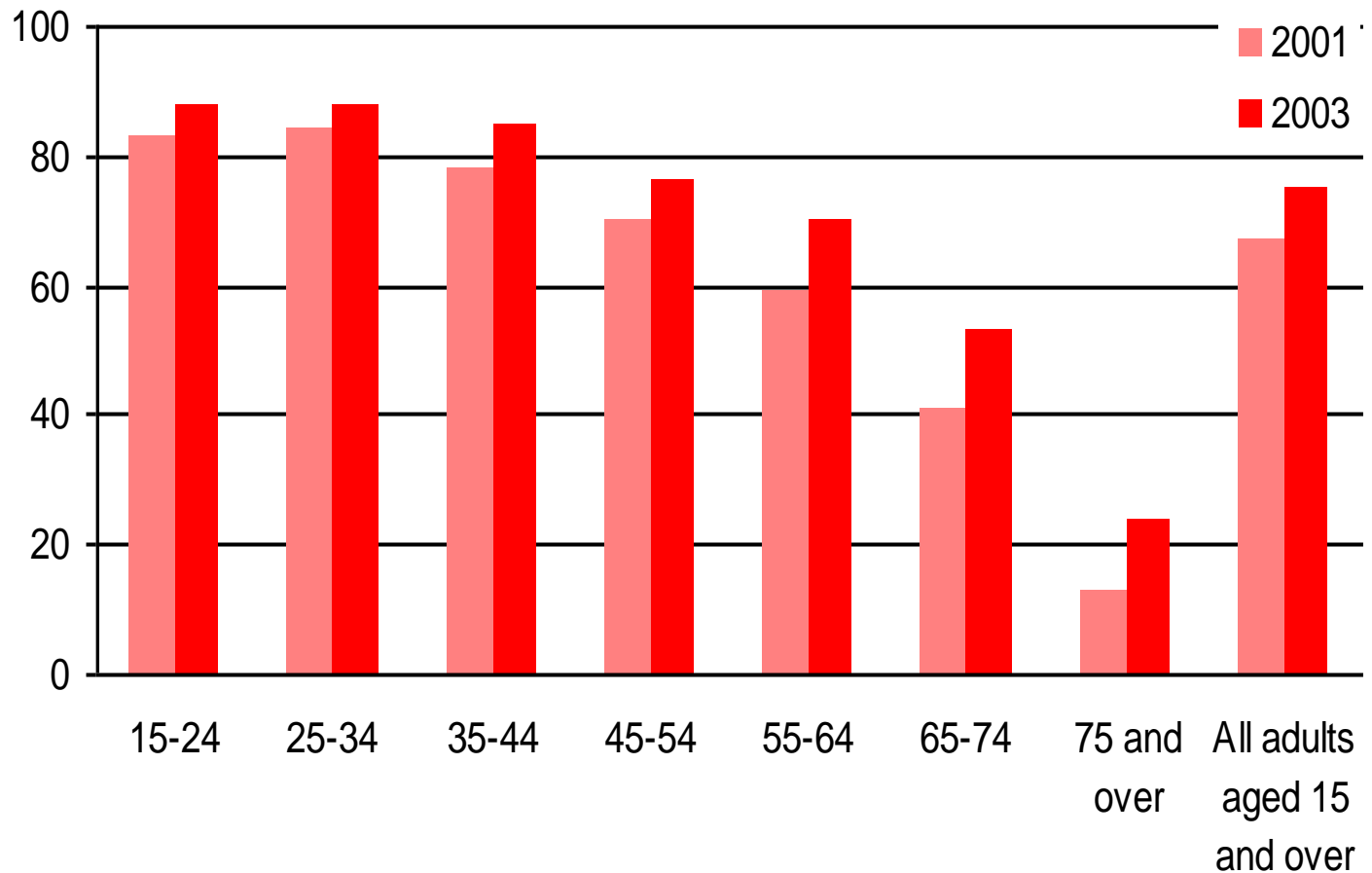
Source: Prensky, 2001: The above figures are already out of date!

Household Devices (UK)



Source: National Statistics Office: <http://www.statistics.gov.uk/>

Mobile Phone Ownership (UK)



Source: National Statistics Office: <http://www.statistics.gov.uk/>

A close-up, vertical view of a blue computer keyboard. The keys are dark with white characters. Visible keys include the arrow keys, 'C', 'OK', '2/4', '3/5', '4/6', and '7/9'. The lighting is dramatic, highlighting the texture of the keys.

Paradigm Shift

Should we translate traditional learning environments into digital format, or should there be a complete reworking of our ideas about education and training?



Analogues

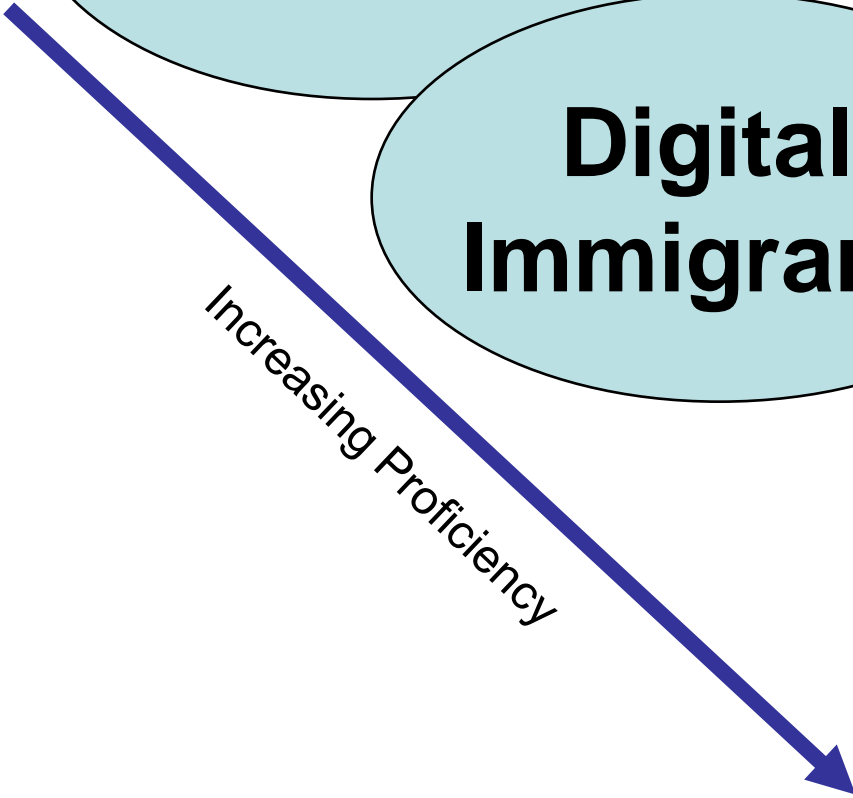
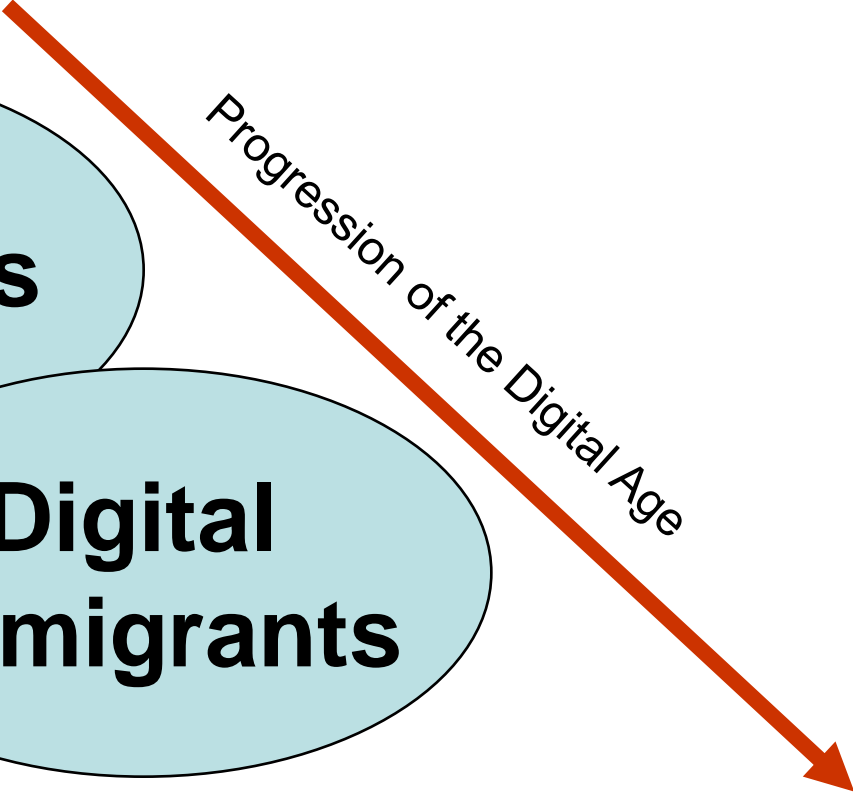
Progression of the Digital Age

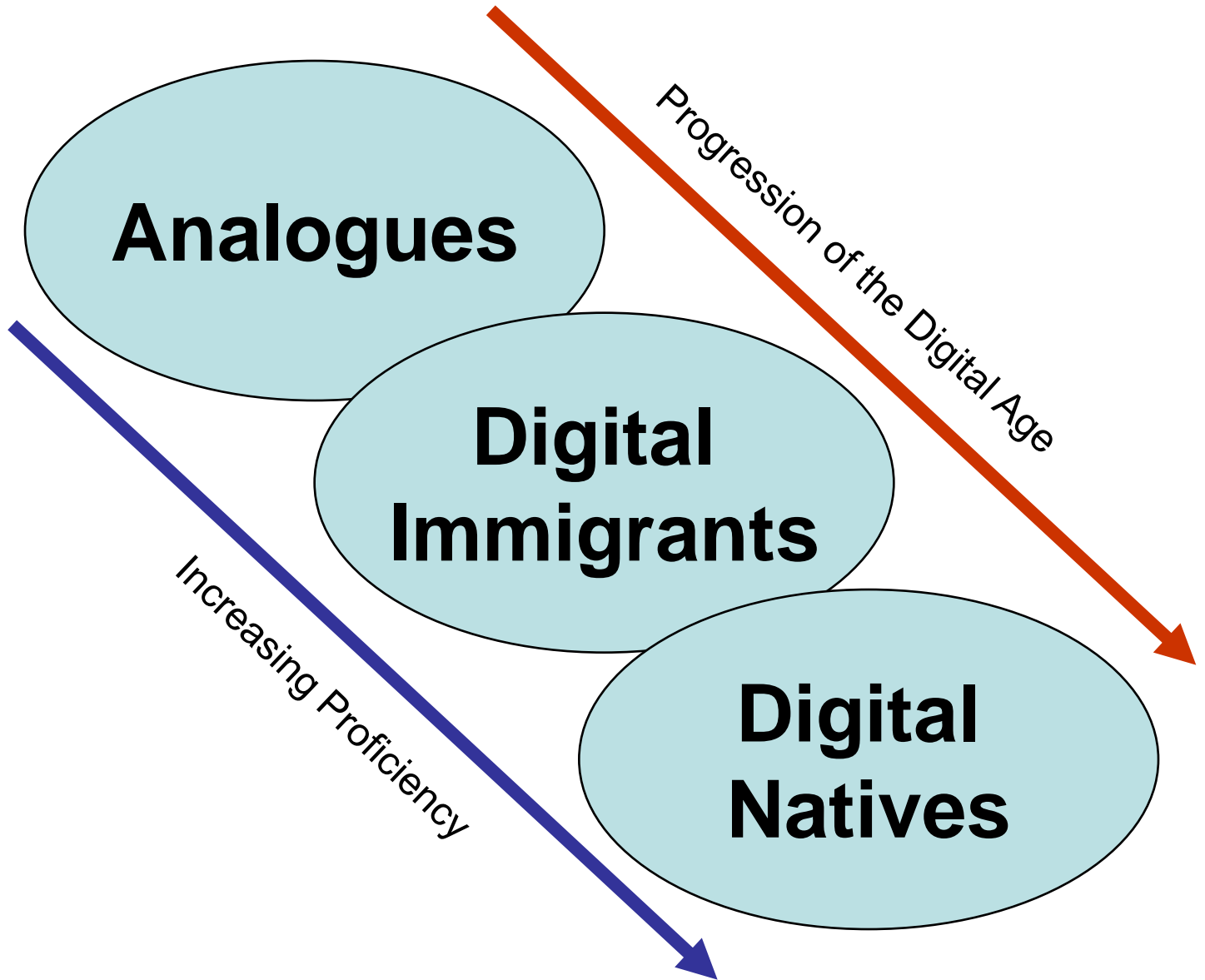
Increasing Proficiency



Analogues

**Digital
Immigrants**





Source: Prensky, (2001)

Which are you?





Digital Natives ...

- Video games
- MTV
- Hypertext and hypermedia
- Music downloads
- Laptop library access
- Mobile phone connectivity
- Instant messaging
- 'Twitch speed'



A Digital Divide

- **Digital Immigrants** find it hard to believe their students can learn successfully while watching TV or listening to music, because they (the **Immigrants**) can't.
- **Digital Natives** think randomly, are able to multi-task, and concentrate in shorter and more intensive bursts.
- **Natives** are always 'on the move'

Natives

Look for information on the internet first

Immigrants

They look for information in traditional media, then the internet

Analogues

‘Next thing you’re going to tell me is that all the computers in the world are connected by some sort of ‘super highway’!’

Natives

Start using all software without reading the manual.

They assume the software will intuitively teach them.

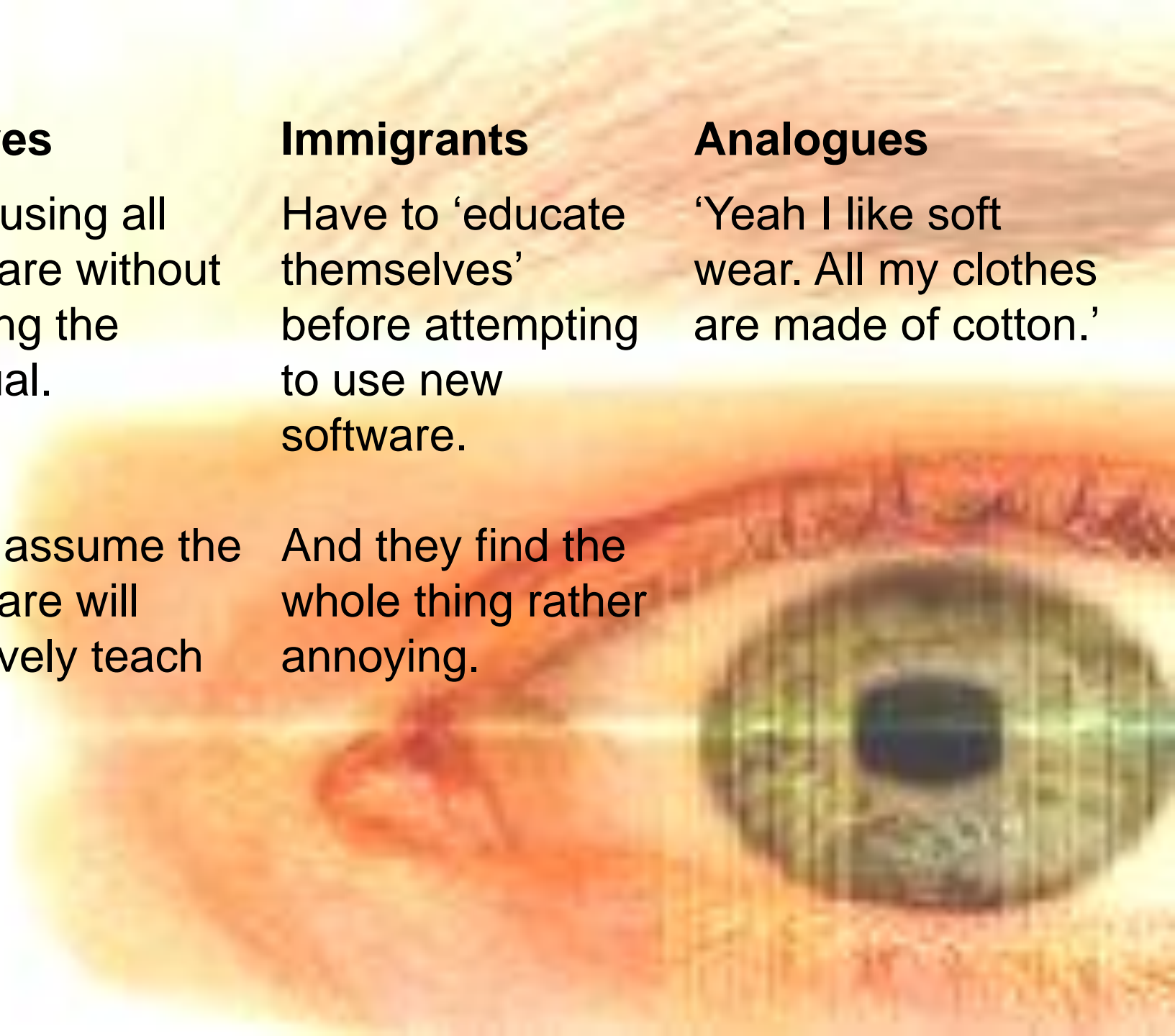
Immigrants

Have to 'educate themselves' before attempting to use new software.

And they find the whole thing rather annoying.

Analogues

'Yeah I like soft wear. All my clothes are made of cotton.'



Natives

Click once on a
web hyperlink.

Read email from
screen.

'Hi.. Check out this
cool site:
www.coolsite.com'



Natives

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Read email from screen.

'Hi.. Check out this cool site:
www.coolsite.com'

Immigrants

Double-click web hyper links.

Print out emails and read them on paper.

'Hello? Bill here. Do you have a minute? Come to my office right now. You've got to see this web site!'



Natives

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Analogues

'Hyper-kids can be so annoying!'

'My secretary handles this email thing'

'Can you send someone to clean those spider webs from the ceiling of my office?'

Mobile Devices for U-Learning



- **Personal Digital Assistants**, or PDAs, are probably the most common type of mobile technology in education.
- **Tablet PCs** are currently the most versatile form of mobile technology because they combine the functionality of a laptop and a PDA.
- With technological advances and steadily decreasing cost, **mobile phones** are emerging as a viable option for mobile learning.

A Prediction



The mobile phone will become the dominant handheld device for mobile learning in the next 5 years.

Convergence

Camera

Video

Desk Dairy

Radio/Alarm

SMS/Text

Internet

MP3 Audio

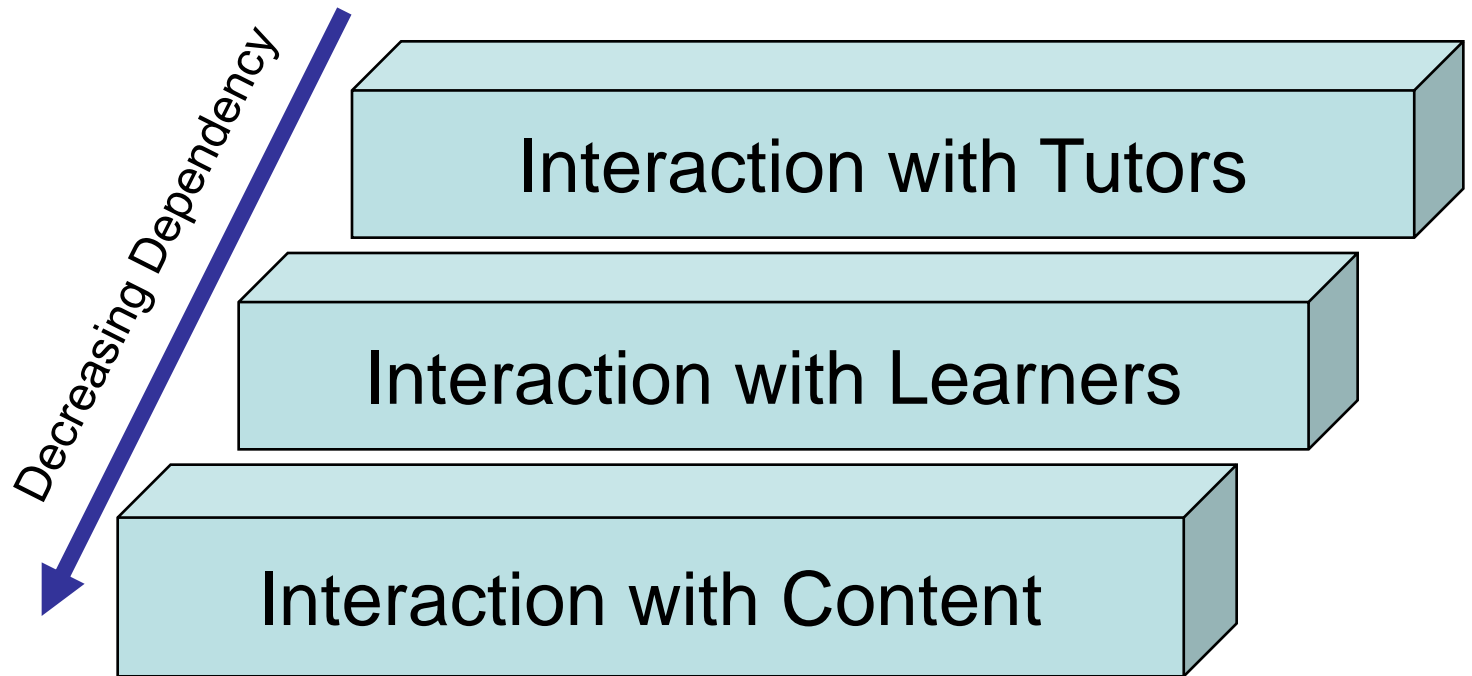
e-Mail

Television

Music Composer

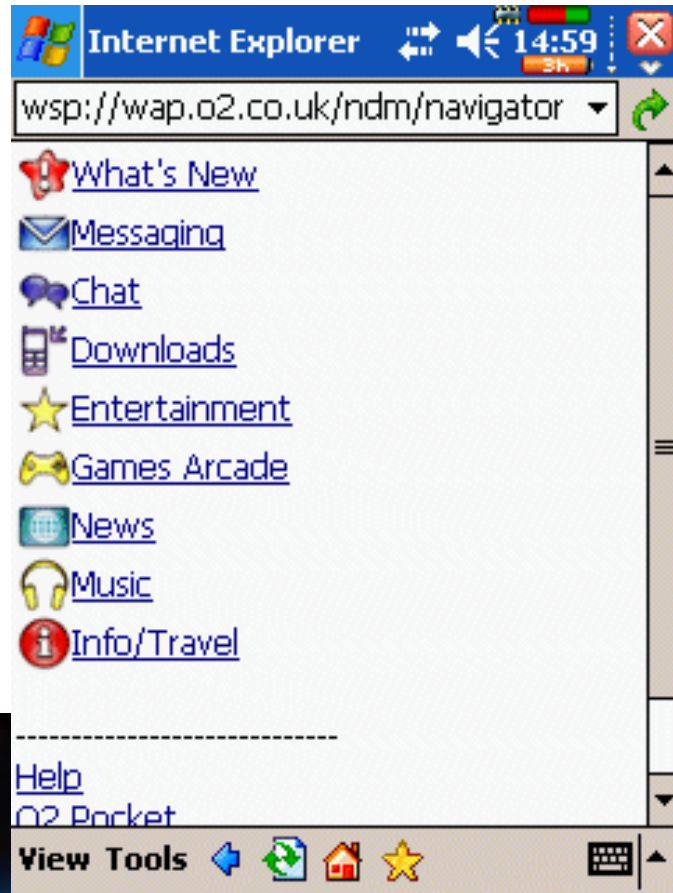


Interaction in U-Learning



Source: Moore (1989) American Journal of Distance Education

Wireless Application Protocol (WAP)



Tutors can store learning objects and menus in XHTML so that students can access them through WAP on mobile devices

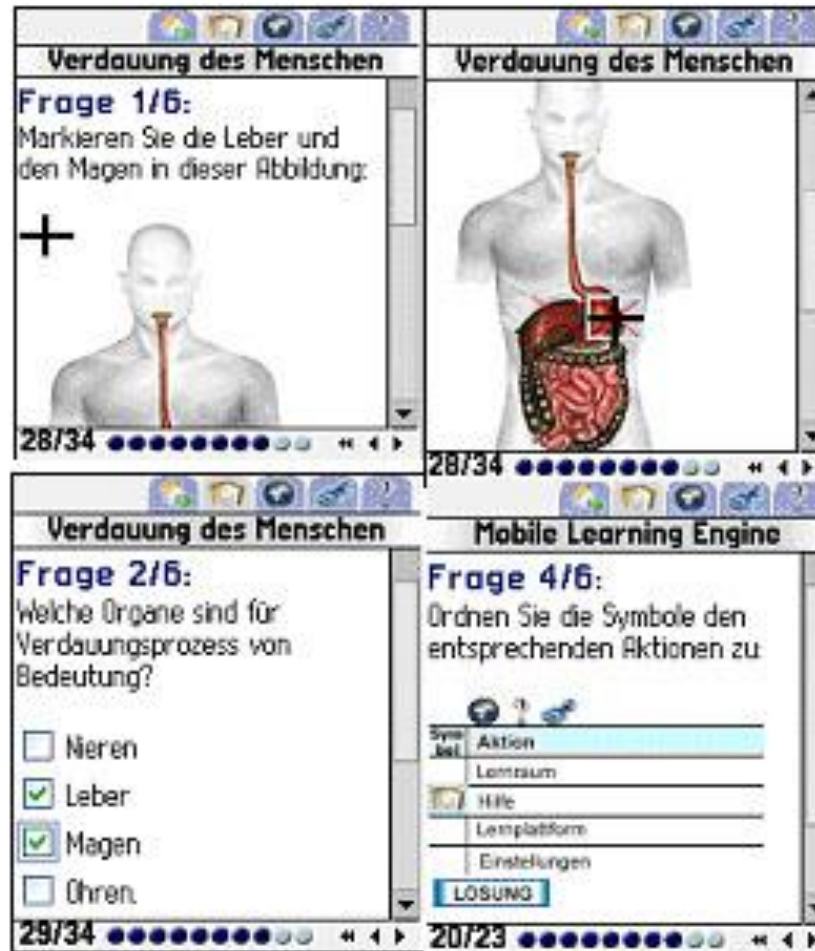
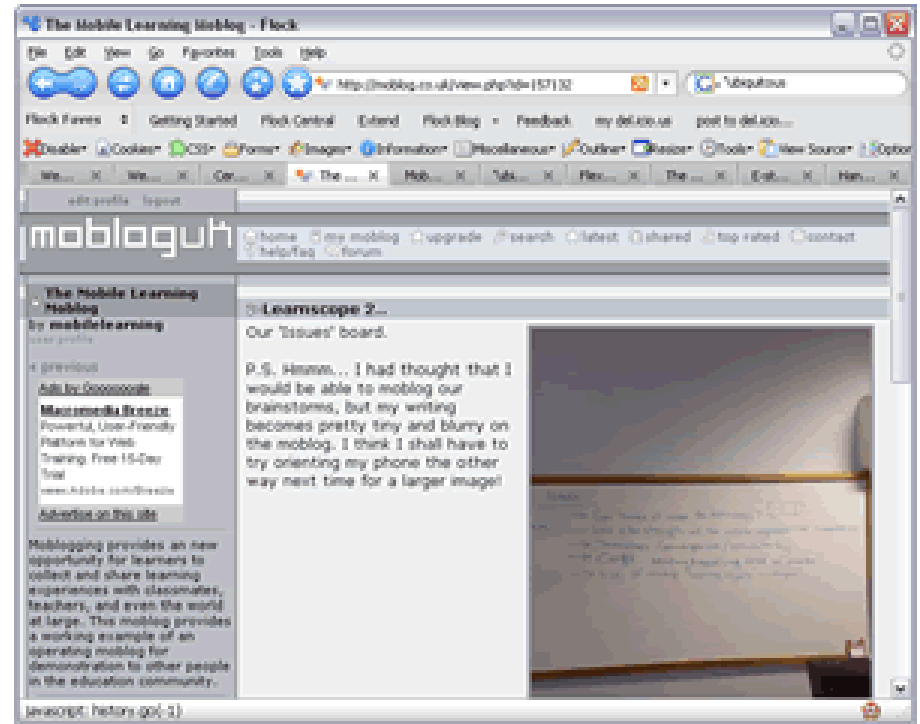


Figure 2: Screenshots from the MLE; learning objects viewed on the Nokia 6600 smartphone

Source: ELearn Magazine, www.elearnmag.org

Moblogging

Moblogging is the practice of being able to update an online journal (or “web log” - “blog”) using a mobile device.



Source: <http://mlearning.edublogs.org/tag/mobile-phone/moblogging/>



Discussion



- Are there areas of your own teaching in which mobile (u)learning could play a part?
- If yes, what would you need to know in order to implement it?
- If not, why not? (Identify reasons mobile learning might be inappropriate or unusable)

The Future?



Digital Paper

A CPU and touch screen
On digital paper (MIT)

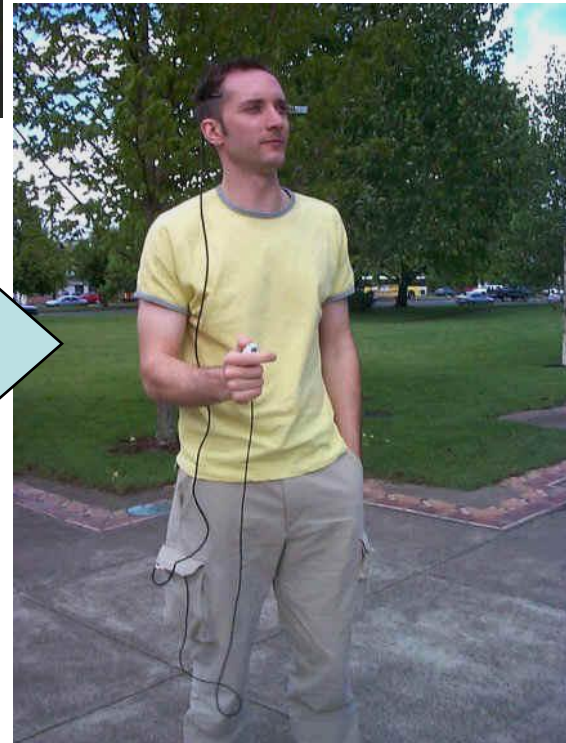
Source: fireflywiki.org

Wearable Computers

University of Oregon

Source:

www.cs.uoregon.edu



Useful Resources

Learning Light e-Learning Centre (Mobile & Wireless Learning Projects)

<http://www.e-learningcentre.co.uk/eclipse/Resources/mlearning.htm>

Educause Review Going Nomadic: Mobile Learning in Higher Education

<http://www.educause.edu/pub/er/erm04/erm0451.asp?bhcp=1>

Glasgow Caledonian University: Mobile Learning Examples

<http://www.educause.edu/pub/er/erm04/erm0451.asp?bhcp=1>

Futurelab Report 11: Literature Review in Mobile Technologies and Learning

http://www.futurelab.org.uk/research/reviews/reviews_11_and12/11_02.htm

Learning with Mobile Devices: Conference Proceedings

<http://www.lsd.org.uk/files/pdf/1440.pdf>





Thanks for Listening

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