The Impact of Out-of-School IT and Media Use on ICT in Education

Peter Olaf Looms

DR

Before we start a quick poll

- ## **Which of the following do you currently have access to at home?**

games console

mobile phone

PC with Internet

- **Which of the following did you have access to at home in June 1993?**

games console   **mobile phone**   **PC with Internet**

The figures give you a sense of

- the speed or slowness with which change is happening

- Whether a given device has (or will) become ubiquitous

games console   **mobile phone**   **PC with Internet**

A worker at online bookstore Paddyfield.com wraps up copies of the new Harry Potter book ready to be sent out to eager readers.

Soccer gambling discussions for schools criticised

One legislator says it sounds like betting among students is being promoted

Carrie Chan

Schoolchildren as young as eight will be taught about soccer gambling under a government proposal revealed yesterday that one leading educator warns is mixing "all the inflammable materials".

Principal Assistant Secretary for Home Affairs Esther Leung Yuet-yin told the Legislative Council that teachers would be encouraged to

among students from Primary Four to Form Three. Information for teachers would soon be available on an education website.

Peter Tang Siu-hung, chairman of the Primary Education Research Association, said the government's proposal to legalise soccer betting could be described as "lighting a fire" — a blaze teachers would be left to extinguish.

He said teachers were facing

widen the scope of the stories to focus on more than just cases of soccer betting, to show the problems of gambling in general.

"It would be a valuable exercise to stimulate students into analysing why there is such controversy over soccer betting, and to initiate rational discussion in classes," Dr Chan said.

Meanwhile, Deputy Secretary for Home Affairs Stephen Fisher unveiled more details in the Legislative Council yesterday of how soccer betting would be operated.

He said betting centres would be open after normal working

HKISPA launch content rating

Hong Kong Internet Service Providers Association

HKISPA

| Our Mission | Press Release | Public Papers | Events | Code of Practice |

- Membership List
- Membership Rule
- Membership Application Form

Internet Content Rating Systems Project

Jointly operated by HKISPA and Television and Entertainment Licensing Authority with the aim to:
- Protect children from potentially harmful materials on the Internet
- Protect freedom of speech on the Internet

click here for more details . . .

Parents

DOWNLOAD FREE FILTER HERE

Related Ordinance for Content Providers | ITTBB proposal for new smart HKID card | Inter-departmental Working Group on Computer Related Crime Report

ICRA   Copyrights 2003 HKISPA Last Updated: May 27, 2003

Who I am and what I do

• **Full-time consultant at public service broadcaster DR - "to inform, educate and entertain"**

• **Strategy, market and technology, mainly digital TV and broadband**

• **Teach postgrad courses in format development and strategic issues related to digital content**

❑ **the IT-University Copenhagen**

❑ **the University of Hong Kong**

① What do we know about out-of-school "media use" by our current and future students?

② What impact does this have on the cognitive and affective development of our students?

③ What are the implications of out-of-school media use for educational policy and practice?

1

What do we know about out-of-school "media use" by our current and future students?

- **Watching** – a physically passive style of media consumption covering television and time-shifted viewing, VHS and DVD, Pay Per View and Video On Demand

- **Playing** – a more active type of media generally bought in units rather than subscriptions and including console games and recorded music

- **Connecting** – usage involving peer-to-peer or peer-to-group communication and information covering SMS, MMS, e-mail, the Web and services such as ICQ and MSN Messenger on the Web, mobile devices and digital television

- **How many hours did you spend on these three last week?**

What do we spend time and money on?

Time consumption (hours/week) **Money consumption (USD/week)**

9.2

23.8

18.2

2.3

0.7

6.5
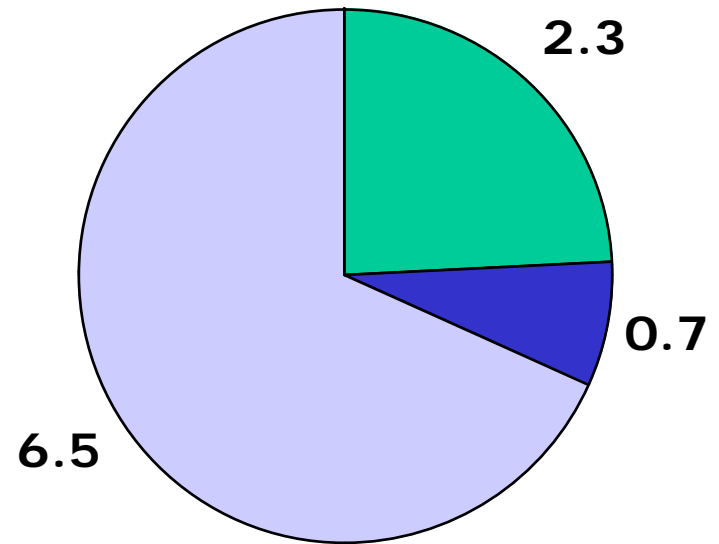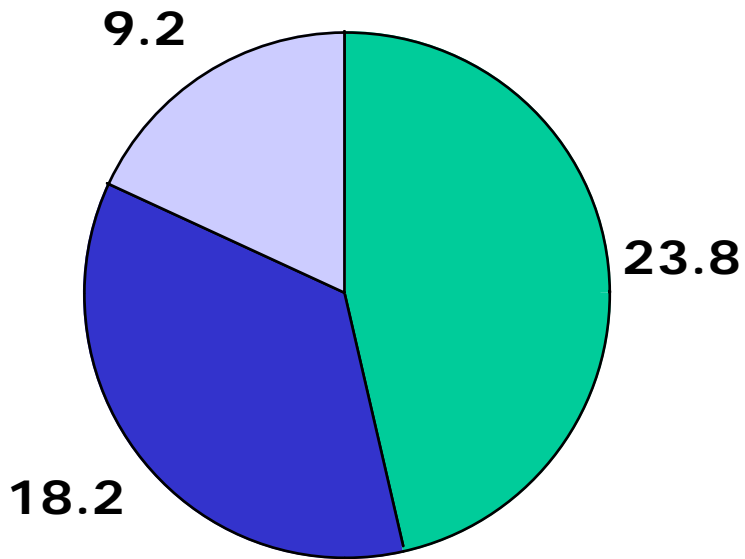
■ **Watching** ■ **Playing** ☐ **Connecting**

Source: Henley Centre, SIS Briefings 50, July 2002, EBU Geneva Switzerland

A 24-hour cycle
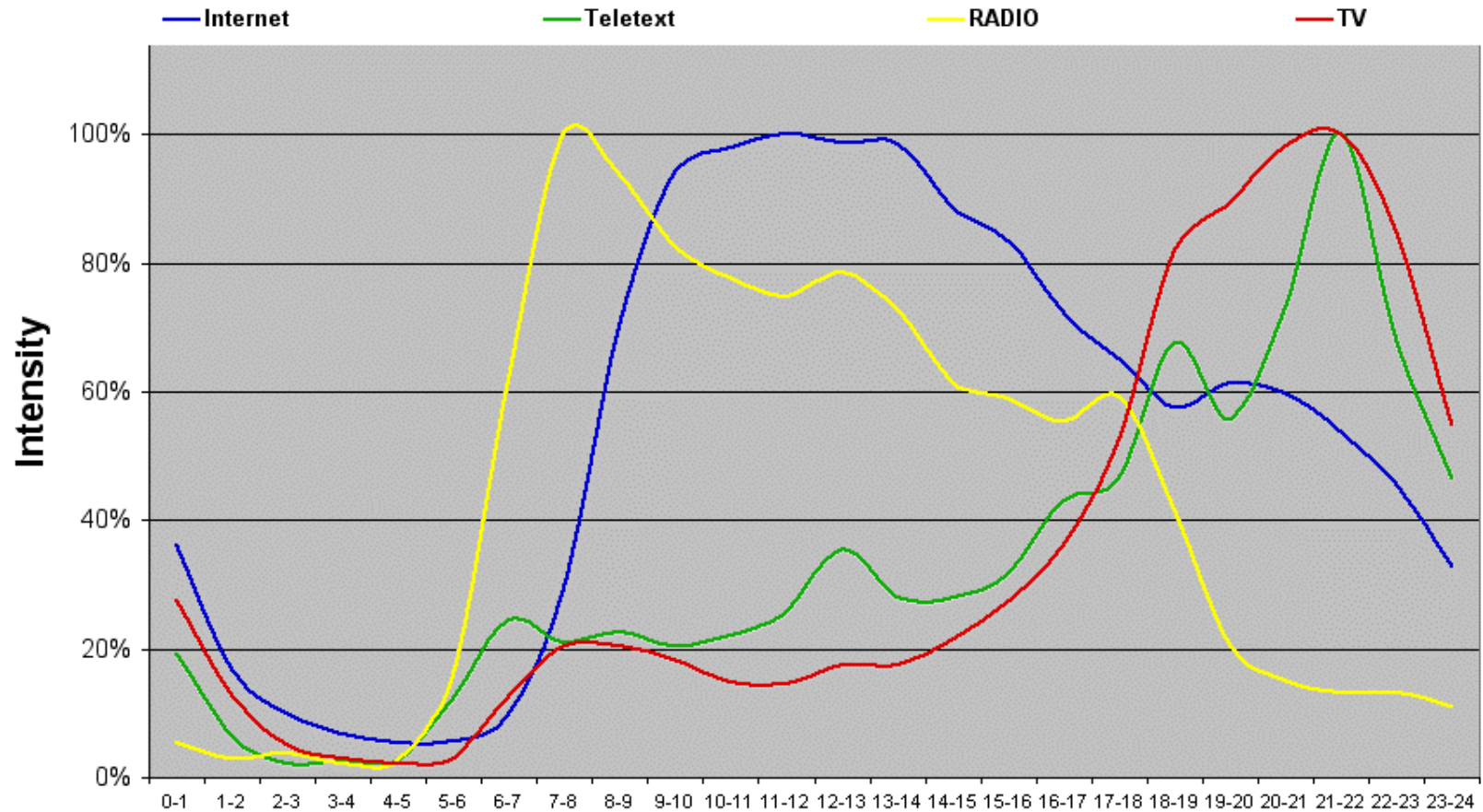
What about kids? Are they different?

Activity	Media consumption by users Hours: minutes	Mean media consumption by all 9-16 year-olds Hours: minutes
Entertainment media		
Watching television	2:36	2:33
Watching video	0:49	0:44
Playing computer games	0:59	0:45
Playing with video consoles (Playstation, Nintendo etc).	0:48	0:25
Playing Gameboy at home	0:16	0:05
Other entertainment media		
Listening to tapes, CD's or records	1:27	1:24
Listening to the radio	0:58	0:43
Reading a cartoon series	0:16	0:11
Informative media		
Using a computer – not games	0:26	0:17
Using a computer at home	0:53	0:43
Reading a book (not school books)	0:21	0:17
Reading a magazine	0:13	0:11
Reading a newspaper	0:08	0:05
Communication media		
Calling someone on the phone	0:14	0:13
Using the Internet on one's own	0:16	0:10
Using the computer at home	0:53	0:43
		N=1.175

Source: Drotner (2001) Figures for Danish children

Research from May 2003

Risk behaviour among 9-16 year olds in Denmark, Finland, Iceland, Norway, Sweden…

…and Ireland

- **Main objective:** Map children's risk behavior on the Internet in Norway, Sweden, Denmark, Iceland and Ireland
- **Target group:** Children between 9-16 years
- **Method:** Self-completed questionnaires in classroom situation
- **Period of data collection:** Ultimo January – Primo March 2003
- **No of interviews:** Total 4700 interviews, 1000 interviews in NOR,SE,DK and ICE, 700 interviews in IRE
- **Weights:** The results are weighted according to national gender and age. Population distribution is collected from official statistics

Q: 11 Do you or anyone else in the family have a PC/computer that you can use at home?

SAFT

Filter: Use PC

Country	Yes, I have my own PC	Yes, I can use another PC at home	No, I have no access to any PC at home
Norway	38 %	57 %	5 %
Sweden	33 %	64 %	3 %
Denmark	50 %	46 %	3 %
Iceland	32 %	65 %	3 %
Ireland	27 %	65 %	8 %

■ Yes, I have my own PC ■ Yes, I can use another PC at home
■ No, I have no access to any PC at home
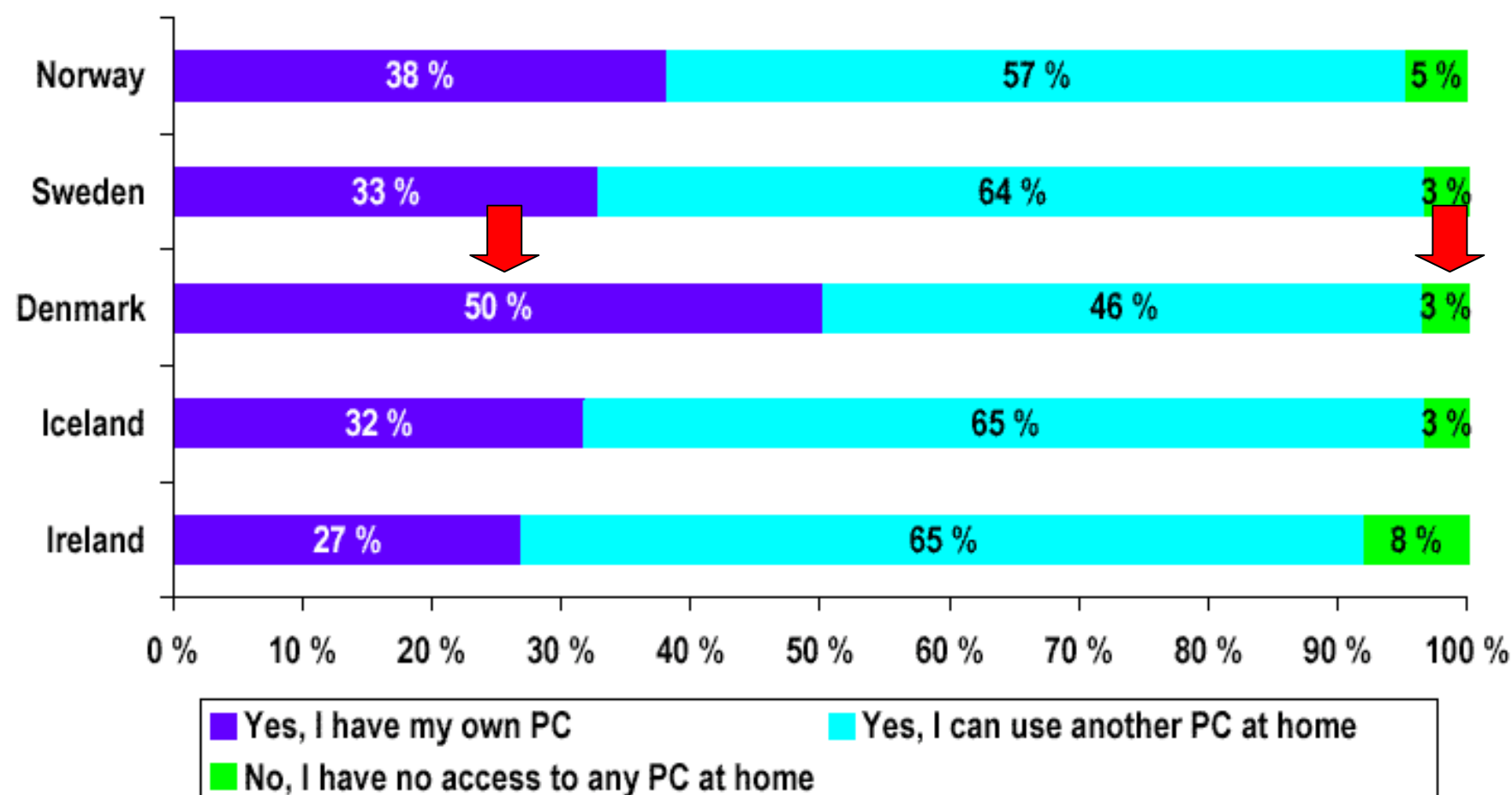
Q: 13 Do you have an Internet connection at home? Yes

S A F T

Filter: Have PC at home

	Norway	Sweden	Denmark	Iceland	Ireland
	73 %	87 %	77 %	85 %	80 %
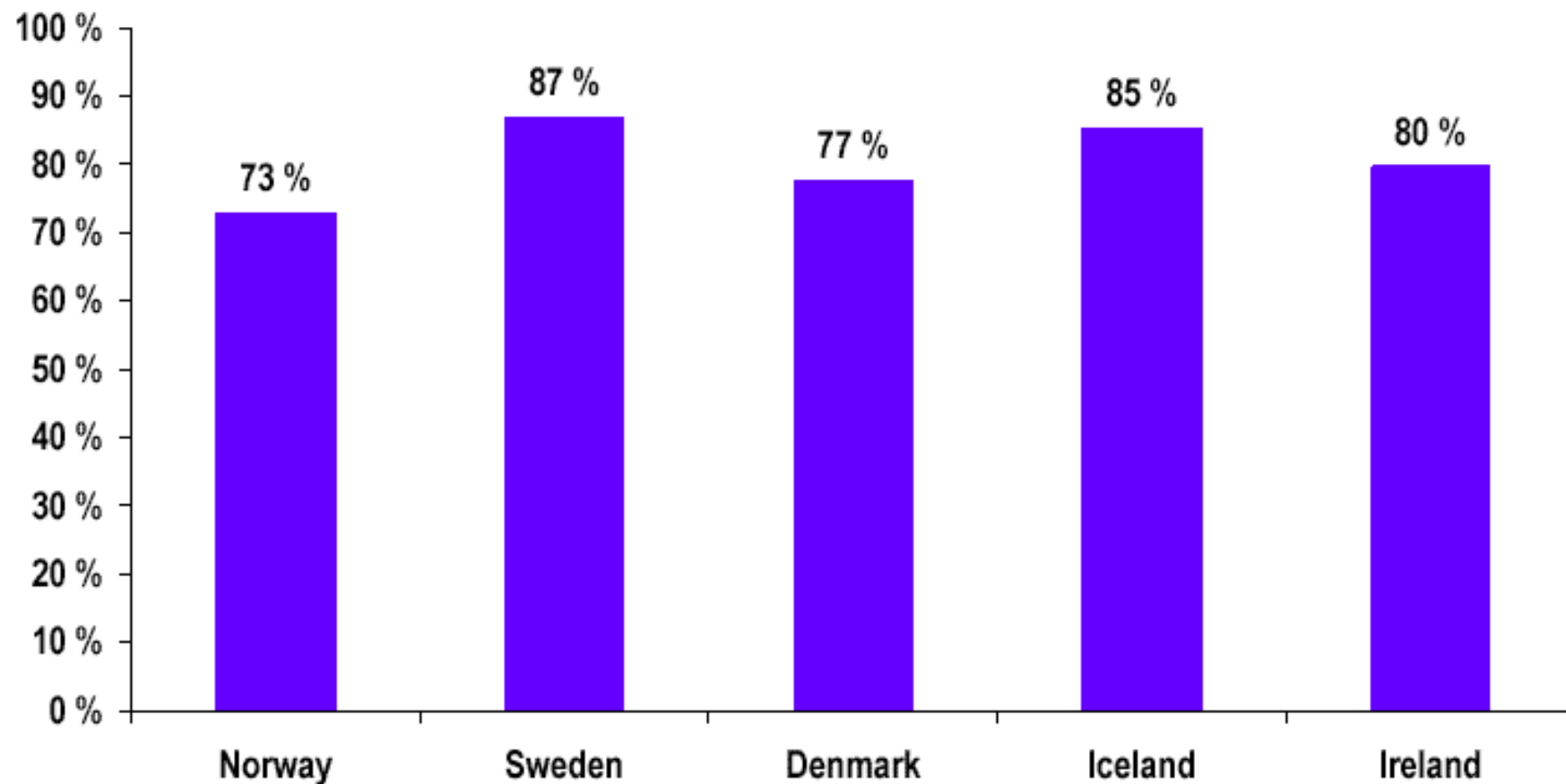
Kids and adolescents use the Net for many things S A F T

Activity	Percentage of Internet users (9-16) who have done X at least once
Playing games on the Internet	71%
Sending and receiving e-mails	50%
Doing homework (9 Ğ 2 year olds)	28%
Doing homework (13-16 year olds)	67%
Getting information other than for homework on the Web	50%
Surfing for fun	39%
Visiting fan sites	32
Chatting (9 Ğ 2 year olds)	28%
Chatting (13-16 year olds)	68%
Downloading music	31%
Visiting hobby websites	24%
Making their own websites	18%
Using instant messaging (MSN, ICQ etc.)	12%
Downloading software	10%
Visiting news sites	9%
Buying things on the Net (!)	7%

Q: 18 What kind of things do you do on the Internet?

S A F T

Filter: Use Internet

Playing games on the Inter
Sending and receiving e-m
Downloading mus
Surfing for f
Doing homewo
Getting information other than for school wo

Girls	**Boys**
E-mail 58%	Playing games 66%
Homework 43%	Download music 49%
Information 40%	Surfing for fun 45%
Fan sites 34%	Download software 25%
	Sites for hobbies 23%
	Watching porno 15%
	Personal websites 12%

Chatting in chat rooms — 37/39%, 31 %, 38 %, 16 %

Visiting fan sites — 27 %, 21 %, 32 %, 21 %, 36 %

Visiting sites for hobbies (knitting, cats, model airplanes, etc.) — 22 %, 24 %, 16 %, 20 %

Using Instant Messaging — 8 %, 22 %, 12 %, 26 %, 14 %

Downloading software — 12 %, 21 %, 10 %, 13 %

Factors above 15%

0 % 10 % 20 % 30 % 40 % 50 % 60 % 70 % 80 % 90 % 100 %

■ Norway ■ Sweden ■ Denmark ■ Iceland ▨ Ireland
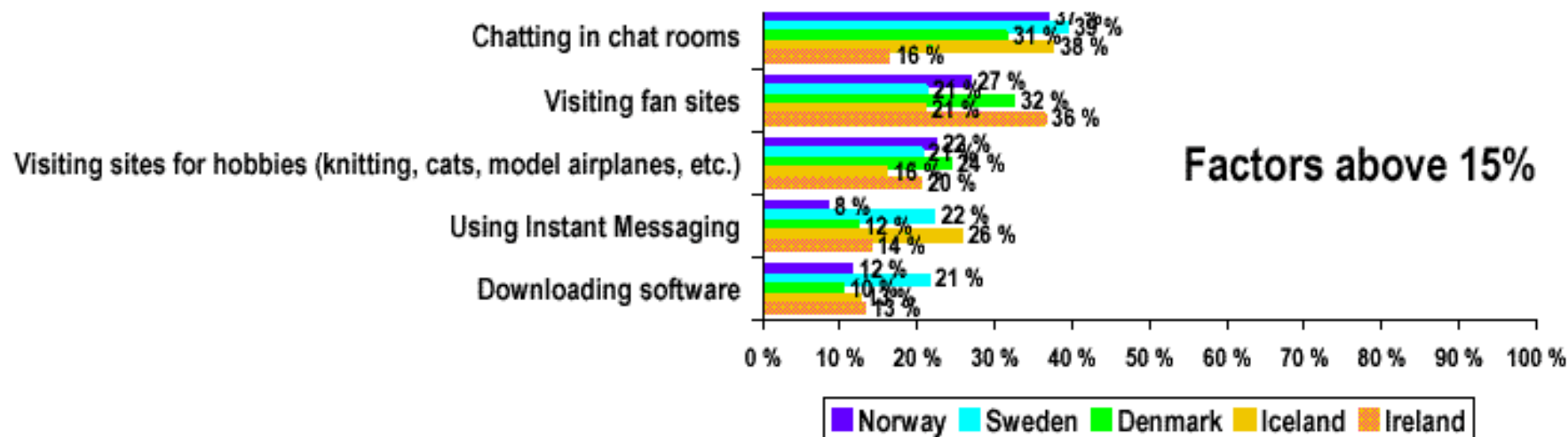
Q: 28 Which of these are your 3 main ways in looking for information when doing homework?

Filter: Use Internet

Category	Values
Books from school	42 %, 42 %, 42 %, 42 %, 63 %, 55 %
Internet websites	33 %, 35 %, 39 %, 48 %, 51 %
Books from a public library	29 %, 29 %, 25 %, 39 %, 52 %
Books from home	23 %, 16 %, 28 %, 41 %
CD or DVD ROM	4 %, 5 %, 16 %
Internet News	1 %, 9 %, 13 %, 5 %, 16 %
Magazines (that are not on the Internet)	6 %, 8 %, 5 %, 8 %
Video tapes	3 %, 4 %, 5 %
SMS Chat	2 %, 3 %, 5 %, 1 %
Internet Chat	2 %, 5 %, 1 %
Other ways	15 %, 3 %, 13 %, 11 %, 19 %
Do not know	9 %, 11 %, 14 %, 4 %

Legend: ■ Norway ■ Sweden ■ Denmark ■ Iceland ■ Ireland
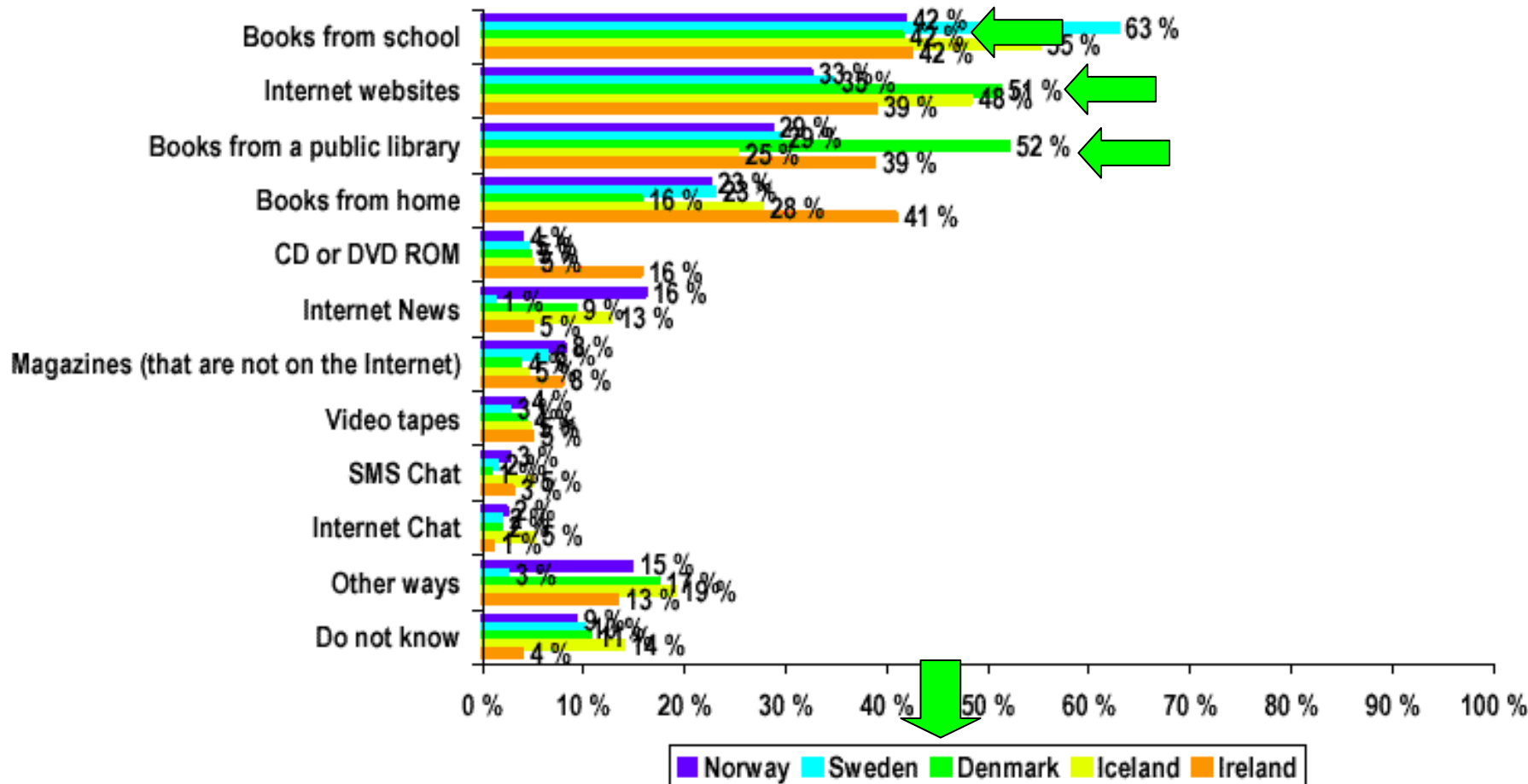
Q: 25 Do you ever do anything to confirm that the information you find on the Internet is true and can be trusted?
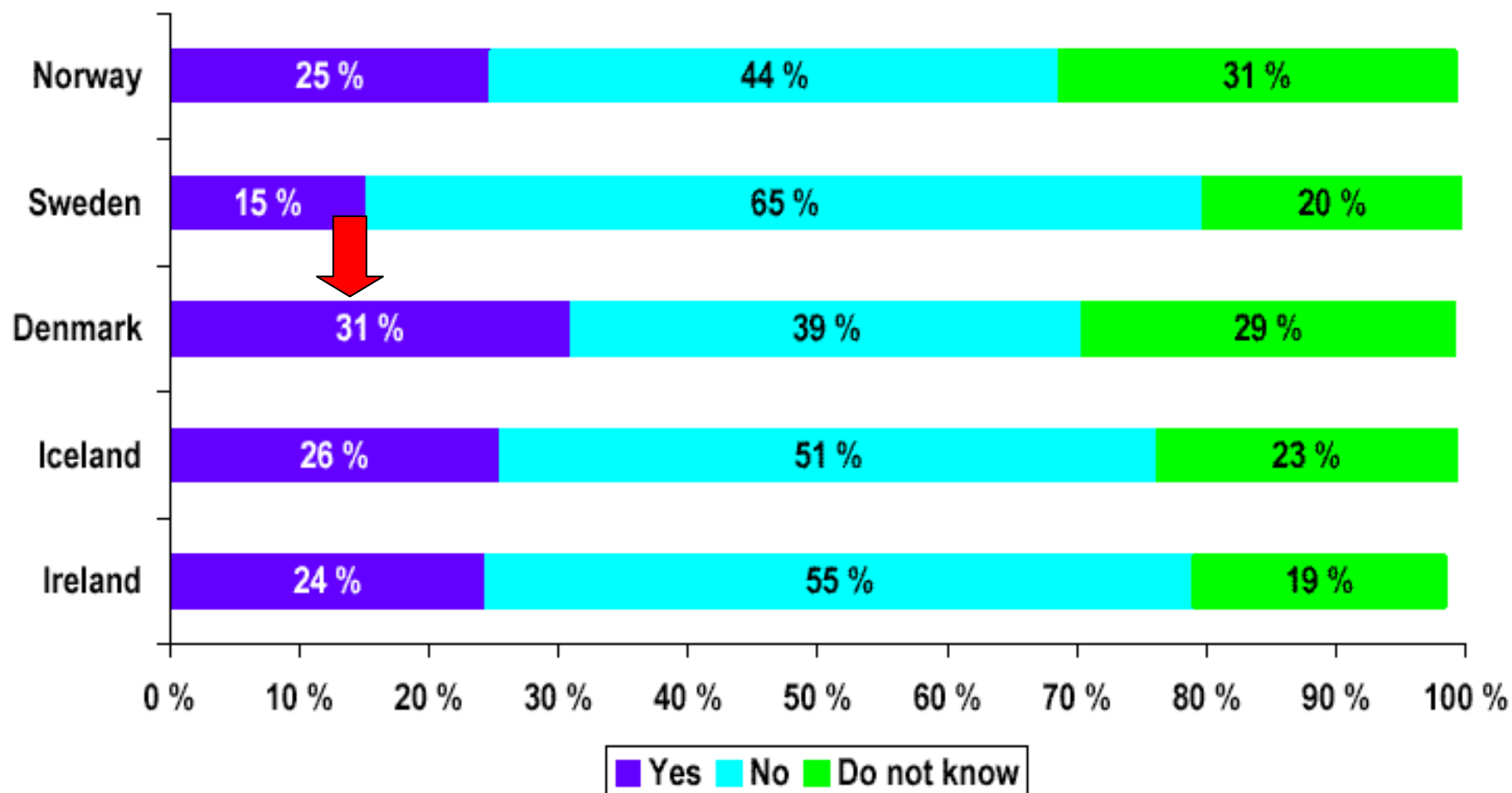
S A F T

Filter: Use Internet

Country	Yes	No	Do not know
Norway	25 %	44 %	31 %
Sweden	15 %	65 %	20 %
Denmark	31 %	39 %	29 %
Iceland	26 %	51 %	23 %
Ireland	24 %	55 %	19 %

0 % 10 % 20 % 30 % 40 % 50 % 60 % 70 % 80 % 90 % 100 %

Legend: ■ Yes ■ No ■ Do not know
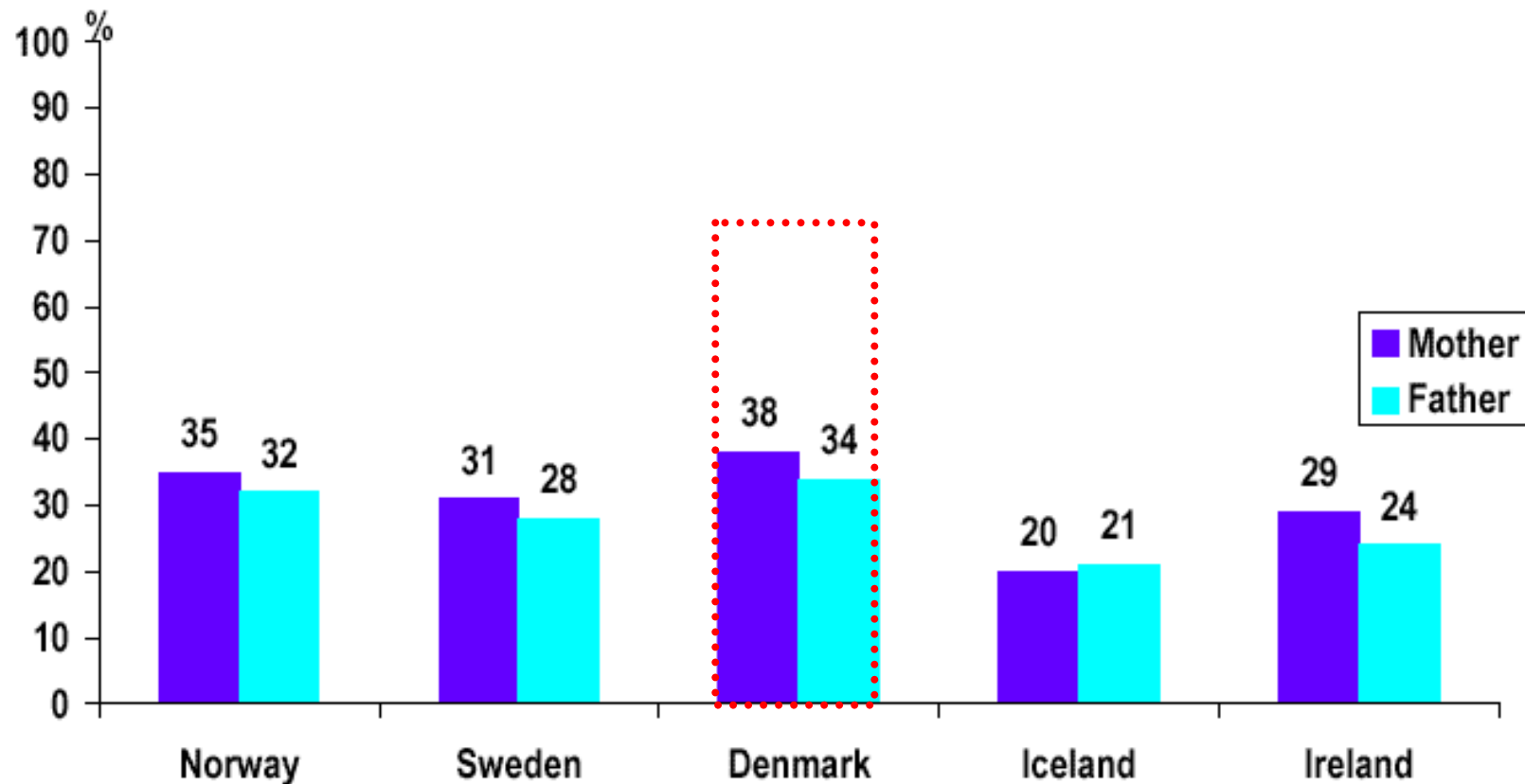
Q: 34 Which of the following rules for Internet are in use in your home?

S A F T

Filter: Go on Internet at home

Rules top 6

Rule	Norway	Sweden	Denmark	Iceland	Ireland
I am not allowed to give out any personal information	47 %		49 %	39 %	70 %
I am not allowed to meet in person someone I only know from the Internet	38 %	49 %	48 %	32 %	58 %
I am not allowed to visit certain sites	35 %	41 %	37 %	22 %	54 %
I have rules about how much time I am allowed to spend on the Internet	34 %	32 %	26 %	28 %	49 %
I have to tell my parents if I find something on the Internet that makes me feel uncomfortable	18 %	22 %	23 %	12 %	27 %
I am not allowed to talk to strangers in chat rooms	17 %	15 %	11 %	18 %	46 %

Legend: ■ Norway ■ Sweden ■ Denmark ■ Iceland ■ Ireland

Q: 39 Have you ever met someone new on the Internet who asked for your personal information?
Yes

S A F T

Filter: Use Internet

	Norway	Sweden	Denmark	Iceland	Ireland
Yes	39 %	36 %	39 %	30 %	19 %

- Kids by and large have their own Net culture
- The Net is the current toy and medium for experiences, entertainment, communication and network building [in Denmark coupled with the mobile phone]
- The transition from childhood to adulthood involving experimentation, breaking new ground and breaking taboos currently takes place [primarily] on the Net
- The home, school and out-of-school clubs have become transparent areas where adults observe and engage in dialogue with children on equal terms

The Net generation sub-culture - A first attempt to understand it

- **Kids by and large have their own Net culture**

- **The Net is the current toy and medium for gaining experience, entertainment, communication and network building [in Denmark coupled with the mobile phone]**

- **The transition from childhood to adulthood involving experimentation, breaking new ground and challenging taboos currently takes place [primarily] on the Net**

- **The home, school and out-of-school clubs have become transparent areas where adults observe and engage in dialogue with children on equal terms**
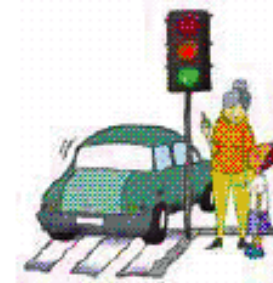
[comments]

4 components:

- **Protect minors from media**

- **Satisfy kids' need for quality media**

- **Participate in kids' activities using media**

- **Bring children up to relate to media**
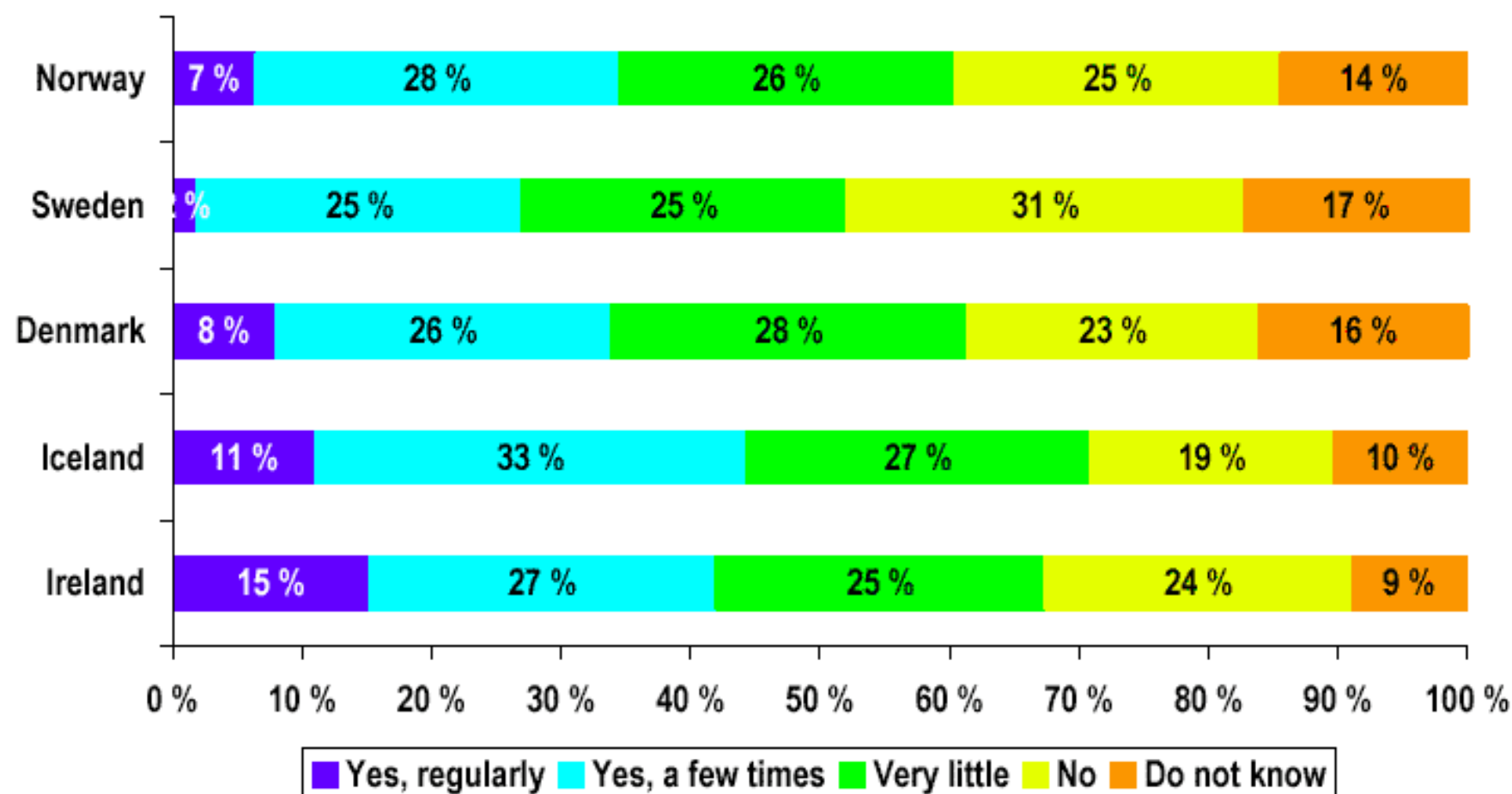
Kids most frequently learn about the Net from:

- Peers - friends, schoolmates (53%)
- Parents (38%)
- Trial and error (34%)
- Their teachers (23%)
- Older siblings (21%)
- Websites (8%)
- Libraries (7%)
- Chat pal (7%)
- Magazines (5%)

Q: 86 Have you had any education in school regarding use of Internet?

S A F T

Filter: Total

Country	Yes, regularly	Yes, a few times	Very little	No	Do not know
Norway	7 %	28 %	26 %	25 %	14 %
Sweden	2 %	25 %	25 %	31 %	17 %
Denmark	8 %	26 %	28 %	23 %	16 %
Iceland	11 %	33 %	27 %	19 %	10 %
Ireland	15 %	27 %	25 %	24 %	9 %

Legend: ■ Yes, regularly ■ Yes, a few times ■ Very little ■ No ■ Do not know

Q: 87 What was the education about?

S A F T

Filter: Have had education in school regarding Internet use

	Norway	Sweden	Denmark	Iceland	Ireland
How to connect Internet	59 %	49 %	55 %	54 %	50 %
Instructions on safe use of Internet, like filters or awareness sites	26 %	28 %	36 %	37 %	51 %
What is illegal to do	39 %	41 %	40 %	22 %	29 %
How to find out if information on Internet is to be trusted	28 %	32 %	40 %	16 %	28 %
How to avoid things you do not want	21 %	14 %	25 %	14 %	34 %
How to use and behave in chatrooms	19 %	14 %	18 %	11 %	24 %
How to behave in e-mails, on bulletin boards, etc.	22 %	15 %	10 %	9 %	17 %
How to be aware of people or companies wanting to sell you things	8 %	8 %	7 %	10 %	27 %
How to get a free e-mail account	10 %	14 %	12 %	12 %	12 %
Other things	27 %	20 %	37 %	27 %	21 %

■ Norway ■ Sweden ■ Denmark ■ Iceland ■ Ireland

Current media use - conclusions

- **Information and Communication Technologies now widely available**
- Children and adolescents heavy users of a wide range of ICT and traditional media out of school
- ICT use in school outshadowed by what goes on outside (quantitatively, in some respects qualitatively)
- This has all taken place *in less than a decade*
- Narrative appeal of television and electronic games at the expense of the book

What impact does this have on the cognitive and affective development of our students?

DR

The Network Society
Jan van Dijk

Harry Potter ™

Wallpapers

PlayStation

PAL

Harry Potter
AND THE
PHILOSOPHER'S
STONE

EA GAMES

PlayStation®

LET THE MAGIC BEGIN

Harry Potter
AND THE
PHILOSOPHER'S
STONE

IN THEATERS NOVEMBER 16

'Screenshot of menus'

START   22:12
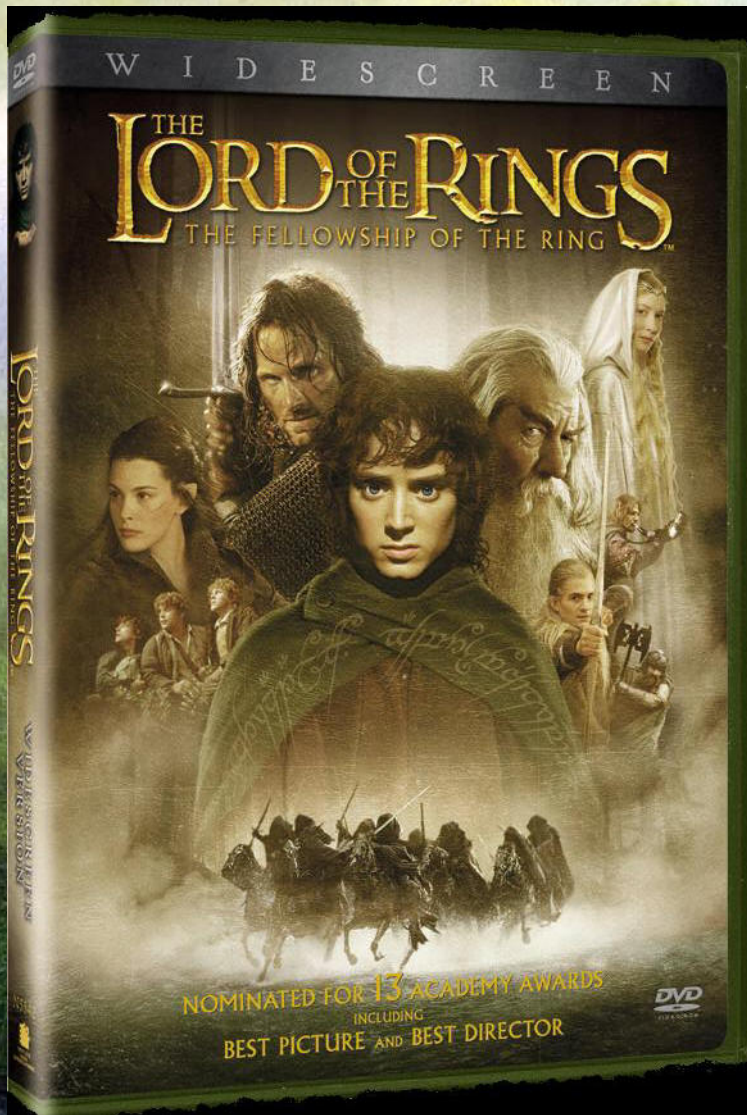
FIFA 2003

Robin Hood: The Legend of Sherwood

Neverwinter Nights

Jeopardy! 2003
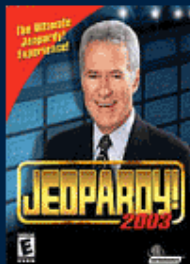
Publisher: Infogrames   Developer: Infogrames   Genre: Puzzle   Release Date: 10/09/2002

GAMESPACE | REVIEW | MOVIES

GameSpot Review

If you can get past the lackluster presentation, irritating pauses, and low-quality video, you may find Jeopardy! 2003 to be a surprisingly challenging and enjoyable pastime.
- Andrew Park   FULL REVIEW

GameSpot Score

7.0 good

GAMEPLAY	7
GRAPHICS	6
SOUND	7
VALUE	8
TILT	7

About our rating system »

The Endless Hours of The Sims Online

"The software induces conditions within the players which encourage them to continue their involvement with their role as game player.

Such conditions include satisfaction, desire, anger, absorption, interest, excitement, enjoyment, pride in achievement, and the (dis)approbation of peers and of others.

It is in provoking and harnessing some of these emotions and their consequences that games software might benefit education."

BECTA 2002

- **Egenfeldt-Nielsen and Heide Smith [2000] in their book and website update [2001]**
- **Review of 60 scientific studies published in English or European languages.**
- **Unable to draw any general conclusions about negative social behaviour.**

- **Neurophysiological studies suggest that dopamine releases have an impact on learning and games develop eye-hand coordination (Koepp, M.J. et al [1998]), (Kawashima [2001])**

"Nearly every study suffers from unclear definitions (of violence or aggression), ambiguous measurements (confusing aggressive play with aggressive behaviour) or using questionable measures of aggression, such as blasts of noise or self-reports of prior aggression) and overgeneralizations from the data…

In reality, a game player chooses when and what to play, and enters into a different state of mind than someone who is required to play on demand".

Goldstein [2000]

Examples of Danish research in this field (published in English)

3. **Children's Use of the Internet. - Play, sociality and communication**. Paper. Konference: Minori in Internet. Doni e danni della rete. Napoli 16-17 November.

8. Sørensen, Birgitte Holm 2000: **Chat and Identity - Playing with the Forms of Chat**. Paper. Forum of Youth and Media Research, Sydney 26-29 November

9. Sørensen, Birgitte Holm & Jessen, Carsten 2000: **It isn't real - Children, Computer Games, Violence and Reality**. In: Cecilia von Feilitzen & Ulla Carlsson (ed.): Children in the New Media Landscape. Yearbook 2000. The UNESCO International Clearinghouse on Children and Violence on the Screen

18. Olesen, Birgitte R. & Sørensen, Birgitte Holm 1999: **Play & Learn - but do they learn anything?** Tell & Call. Zeitschrift für Technologie-unterstützten Unterricht 2. Wien
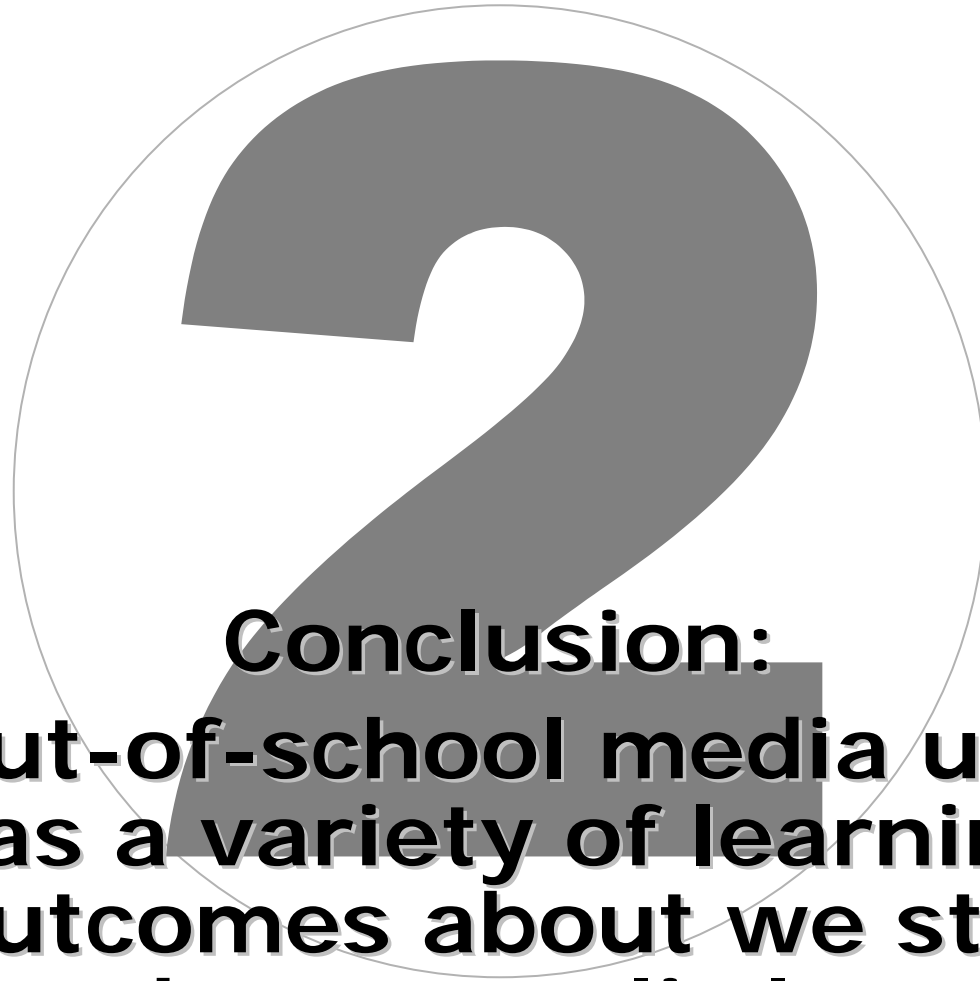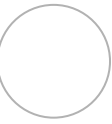
Conclusion:

Out-of-school media use has a variety of learning outcomes about we still know too little
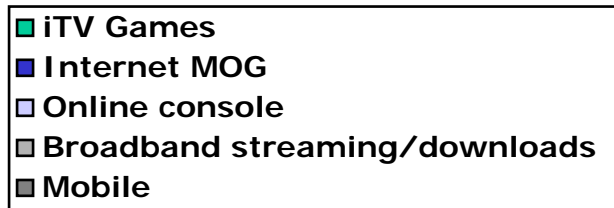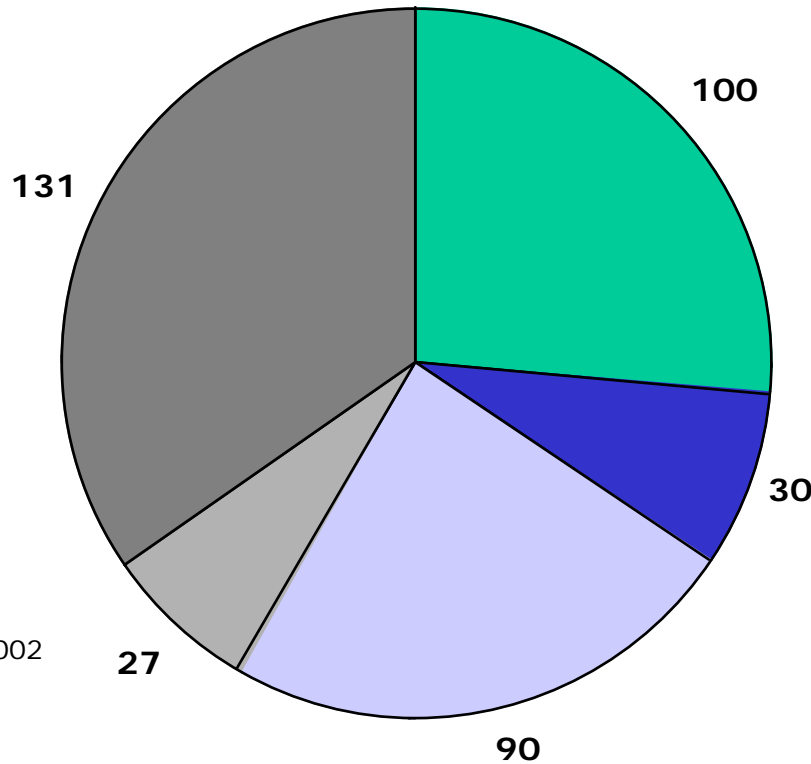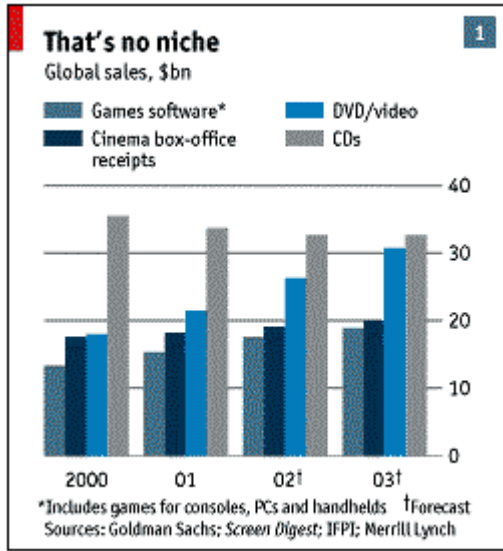
What are the implications of out-of-school media use for educational policy and practice?

Media usage - continuous change

Males (thousands)				Females (thousands)				
Age groups	1980	1990	2000	2005 (est.)	Age groups	1980	1990	2000	2005 (est.)
60-65	4,552	4,948	5,087	6,762	60-65	5,309	5,671	5,670	6,086
55-59	5,361	5,004	6,461	8,741	55-59	6,024	5,470	6,992	8,101
50-54	5,616	5,521	8,577	10,082	50-54	6,136	5,848	9,049	9,578
45-49	5,428	6,779	9,856	11,264	45-49	5,765	7,045	10,202	10,965
40-44	5,592	9,780	11,293	**11,412**	40-44	5,850	9,014	11,473	11,222
35-39	6,640	9,904	**10,956**	**10,155**	35-39	6,890	10,078	11,087	9,927
30-34	8,260	10,905	**9,674**	**9,436**	30-34	8,476	11,008	9,890	9,146
25-29	9,499	10,658	**8,769**	**9,207**	25-29	9,632	10,578	8,855	9,144
20-24	10,515	9,746	**9,531**	**9,889**	20-24	10,532	9,389	9,162	10,269
15-19	**10,886**	9,113	**10,226**	**10,202**	15-19	10,609	8,652	9,668	10,788
10-14	**9,484**	8,810	**10,252**	**10,069**	10-14	9,101	8,388	9,765	10,654
5-9	8,822	9,246	**10,070**	**9,348**	5-9	8,431	8,816	9,611	9,774
0-4	9,980	9,648	9,682	9,397	0-4	9,530	9,205	9,263	9,815

Sources: Brown, Alex; Deusche Bank/Census Bureau in Koffler [2002]

That's no niche
Global sales, $bn

- Games software*
- Cinema box-office receipts
- DVD/video
- CDs

*Includes games for consoles, PCs and handhelds   †Forecast
Sources: Goldman Sachs; Screen Digest; IFPI; Merrill Lynch

The Economist, Console Wars 20 June 2002

100

131

30

27

90

380 million USD

- ■ iTV Games
- ■ Internet MOG
- □ Online console
- ▨ Broadband streaming/downloads
- ▨ Mobile

Games - annual revenues 2006

3

256
265
2200
2700
930

6,350 million USD

- ■ iTV Games
- ■ Internet MOG
- □ Online console
- ■ Broadband streaming/downloads
- ■ Mobile

Keen, Ben (editor) [2002]. Wireless, Interactive TV and Online Gaming – Market assessment and forecasts. Screen Digest, London.
University of Hong Kong 24 June 2003 © Peter Olaf Looms
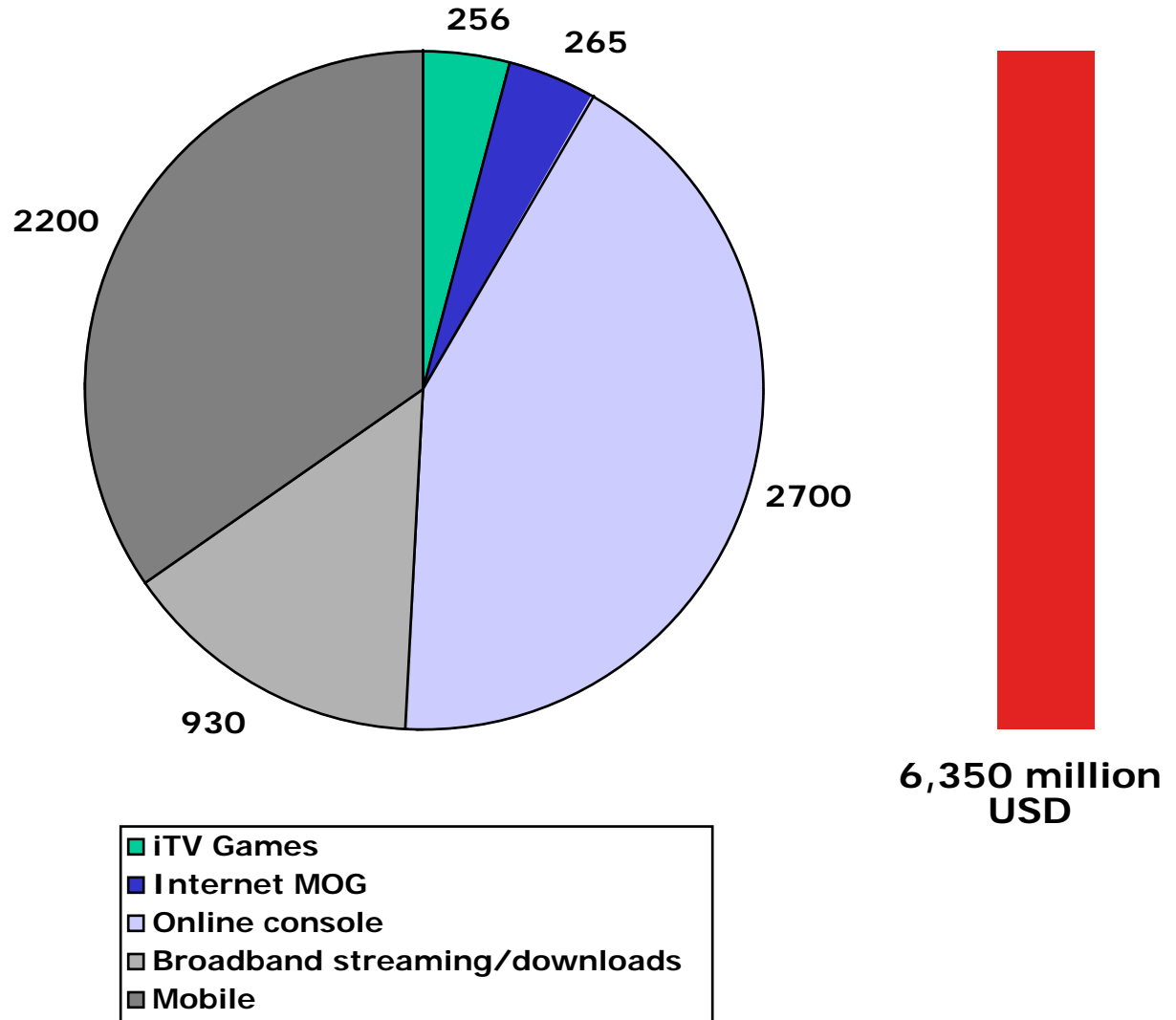
Consumption of interactive and normal television in Europe

□ Viewing linear broadcast ■ Using interactive service or programming
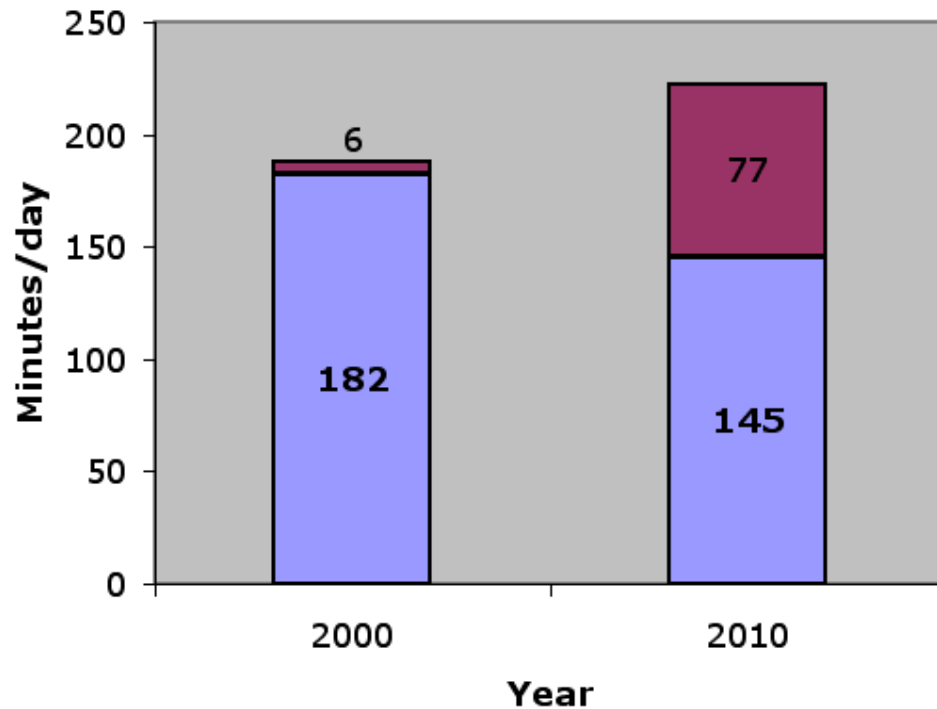
Ongena [2001]

Conclusions:

- **Out-of-school media use has changed rapidly and will continue to evolve as digitalisation, convergence and IP lead to ubiquitous and persuasive computing (Wolf in Sheep's Clothing)**

- **ICT in education policy would benefit from further studies of out-of-school media use both as a social phenomenon and for possible synergies between education and the outside world**

Conclusions:

- **A realistic policy regarding protection of minors from offensive and violent content cannot be based on filtering and content rating alone.**

- **Education and the teaching of ethics could well play a crucial, complementary role (if understood/accepted by government)**

- **Parents still have responsibilities towards their children**

- **Educational use of games and simulations should be aware of the external yardstick - professional, seductive productions from the entertainment industry**

Thank you!

DR