



<b>Title</b>	<b>The Impact of Out-of-School IT and Media Use on ICT in Education</b>
<b>Author(s)</b>	<b>Looms, PO</b>
<b>Citation</b>	<b>Seminar on "The Impact of Out-of-School IT and Media Use on ICT in Education", Hong Kong, China, 24 June 2003</b>
<b>Issued Date</b>	<b>2003</b>
<b>URL</b>	<b><a href="http://hdl.handle.net/10722/44088">http://hdl.handle.net/10722/44088</a></b>
<b>Rights</b>	<b>Creative Commons: Attribution 3.0 Hong Kong License</b>



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

**Peter Olaf Looms**

## 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**



10 years ago

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

games console

mobile phone

PC with Internet

## Purpose of quiz

**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**

# Inputs from Hong Kong...



©2001 by XBOX, INC., DISTR. by KING FEATURES SYND.



SORRY, BILLY,  
BUT THAT'S A PART  
OF LIFE! YOU HAVE  
TO LEARN TO BE A  
GOOD SPORT! DON'T  
BE A SORE  
LOSER.

JEFF  
and  
BIL KEANE



Here's What **REALLY**  
Happened! by Billy



**Assistant Editor, City**  
 Alice Tam  
 alice.tam@scmp.com

**Photo Editor**  
 Bob Mountfort  
 bmountfort@scmp.com

**Features Editor (Life)**  
 Andy Gilbert  
 andygilbert@scmp.com

**Assistant Features Editor**  
 Drew Scott  
 drewscott@scmp.com

**Sociate Features Editor**  
 Elaine Chan  
 Elaine.Chan@scmp.com

**Living Sports Editor**  
 Nick DeLino  
 nickdelino@scmp.com

**Assistant Sports Editor**  
 Prentice  
 prentice@scmp.com

**Opinion Editor**  
 Ray Bell  
 raybell@scmp.com

**P.COM**  
 Customer Service  
 Chen  
 chen@scmp.com 2545 2495

**PRINT PERMISSION**  
 info@scmp.com 2680 8180  
 sales@scmp.com 2680 8167

**SUBSCRIPTIONS**  
 info@scmp.com 2545 8315

**SUBSCRIPTIONS PLUS**  
 info@scmp.com 2680 8315

**ADVERTISING SALES**  
 Advertising Managers  
 Ko  
 kko@scmp.com 2545 2432  
 Mak  
 mak@scmp.com 2545 2456  
 Nam  
 nam@scmp.com 2545 2439

**REPRINTING**  
 Reprinting Manager  
 Wong  
 wong@scmp.com 2250 3104



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 Yuer-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 teaching

**HKU**  
 School of  
 Professional  
 Continuing  
 Education  
 The University  
 of Hong Kong  
 香港大學  
 專業進修

# HKISPA launch content rating



[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 . . . >>](#)



[Related Ordinance for Content Providers](#)

[ITTBB proposal for new smart HKID card](#)

[Inter-departmental Working Group on Computer Related Crime Report](#)

[ICR](#)



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



## Three questions

- 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?**



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

# What do we mean by “media”?

1

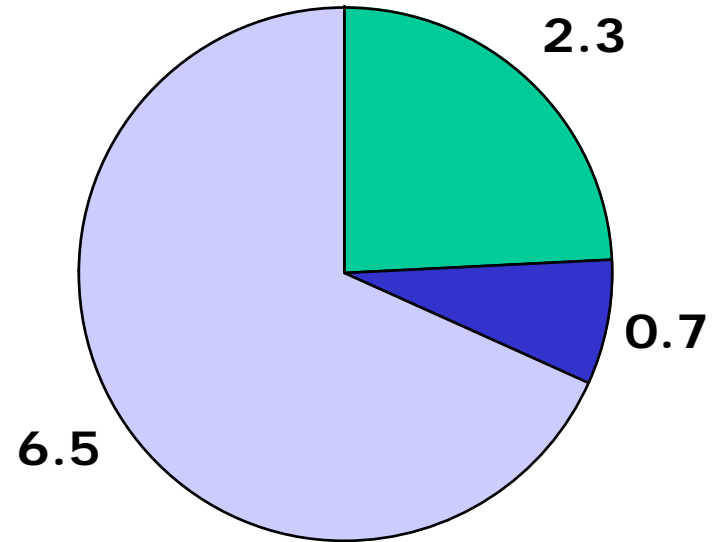
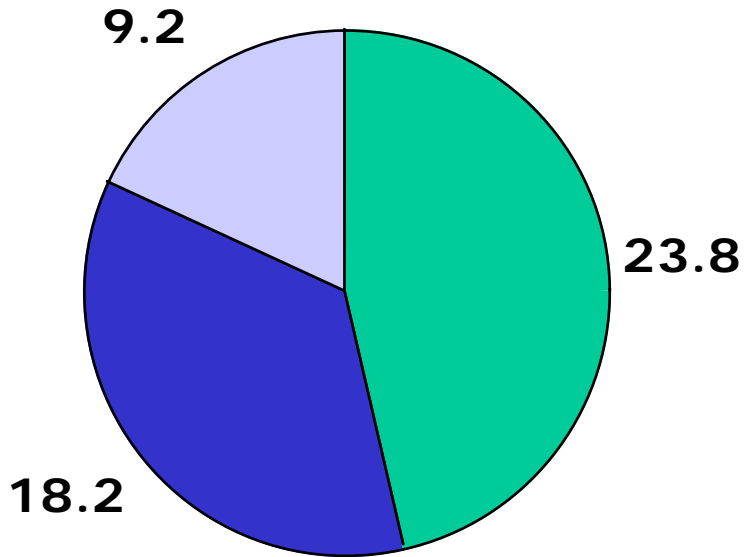
- **Watching** – a physically passive style of media consumption covering television and time-shifted viewing, VHS and DVD, Pay Per View and Video On Demand
- **Playing** – a more active type of media generally bought in units rather than subscriptions and including console games and recorded music
- **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)



■ Watching ■ Playing ■ Connecting

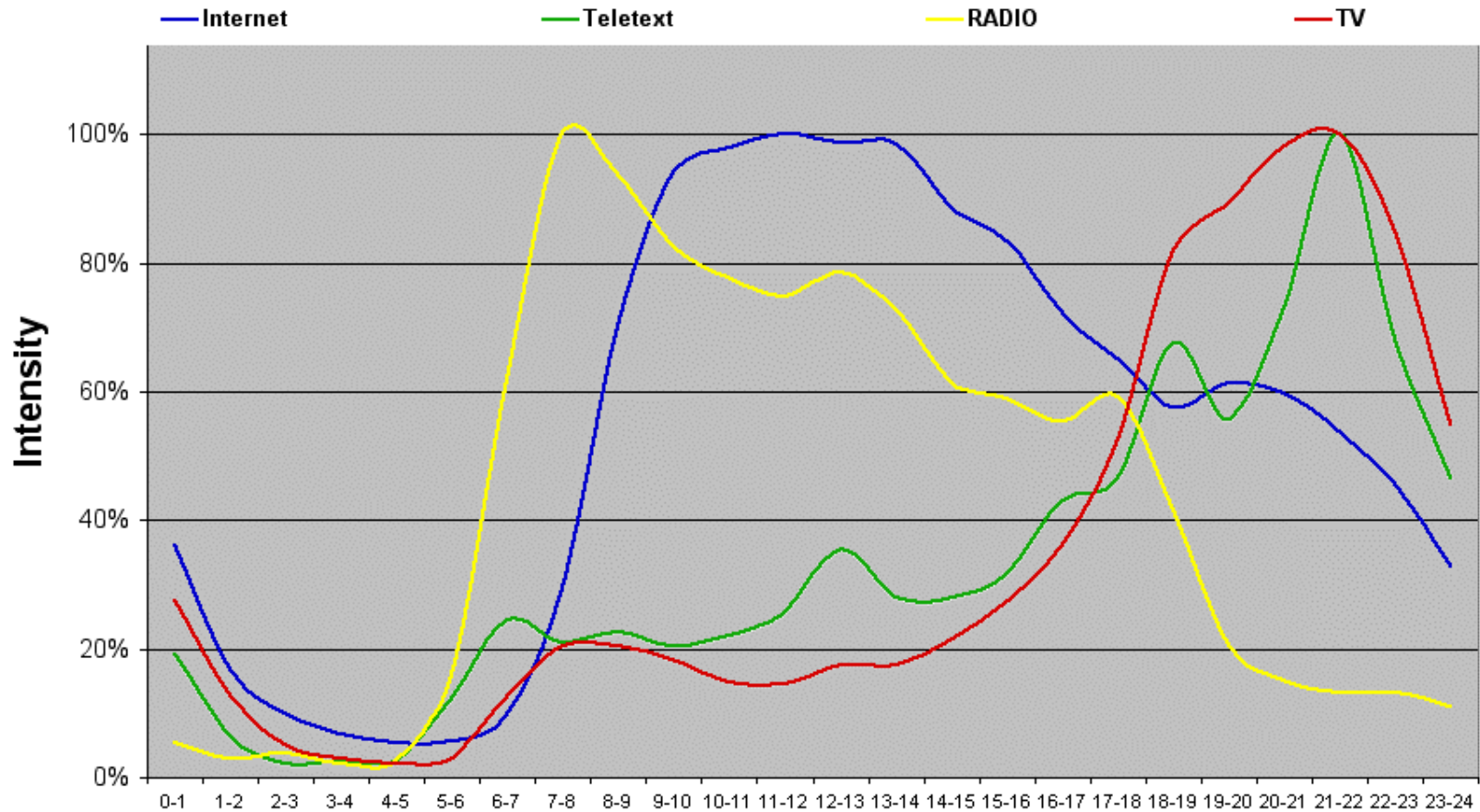
Source: Henley Centre, SIS Briefings 50, July 2002, EBU Geneva Switzerland



# When do watch, play and connect?



## A 24-hour cycle



# What about kids? Are they different?



1



# What about kids? Are they different?



Activity	Media consumption by users Hours: minutes	Mean media consumption by all 9-16 year-olds Hours: minutes
<i>Entertainment media</i>		
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
<i>Other entertainment media</i>		
Listening to tapes, CDs or records	1:27	1:24
Listening to the radio	0:58	0:43
Reading a cartoon series	0:16	0:11
<i>Informative media</i>		
Using a computer and 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
<i>Communication media</i>		
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

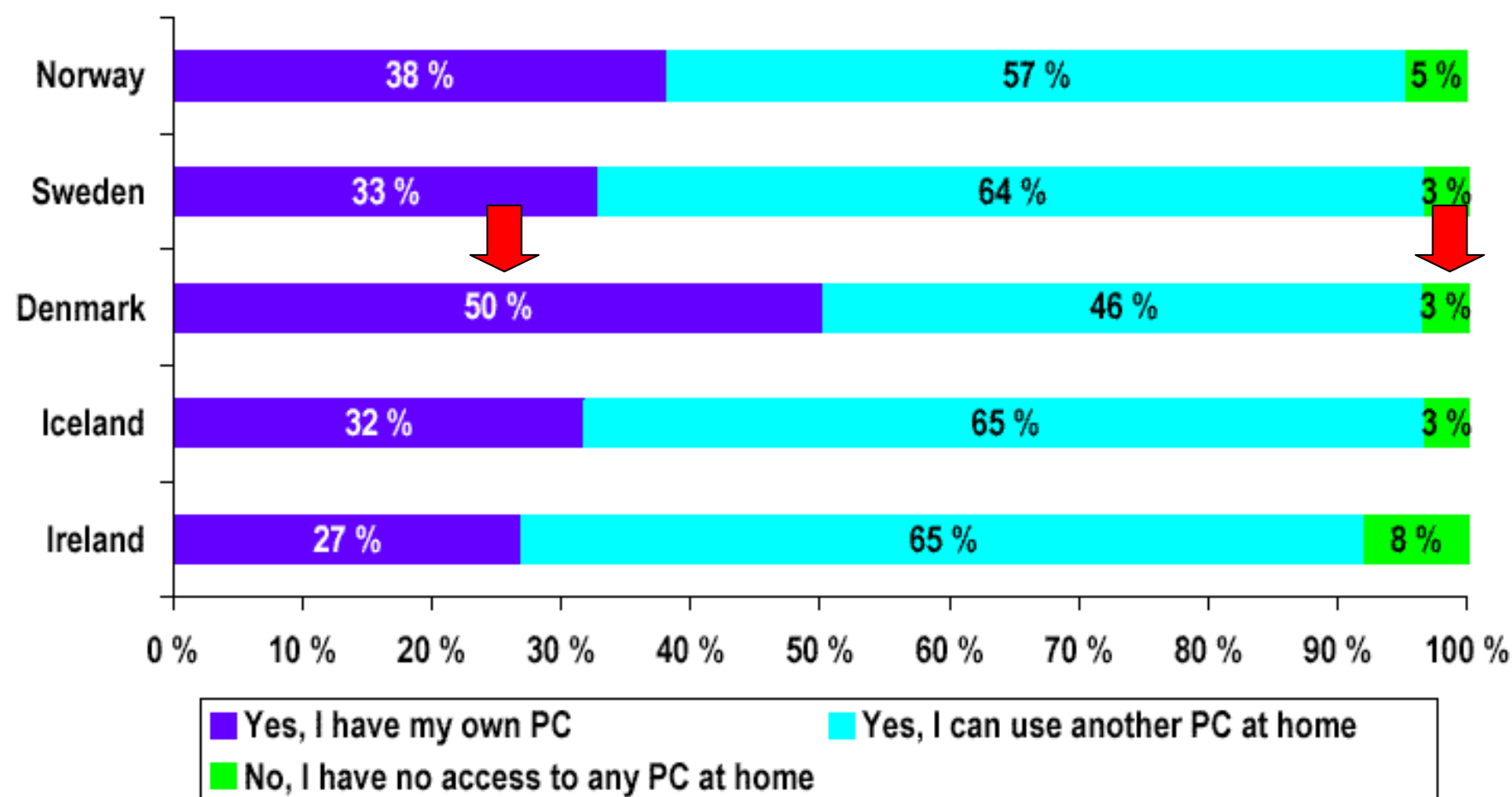


- **Main objective:** Map children's risk behavior on the Internet in Norway, Sweden, Denmark, Iceland and Ireland
- **Target group:** Children between 9-16 years
- **Method:** Self-completed questionnaires in classroom situation
- **Period of data collection:** Ultimo January – Primo March 2003
- **No 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

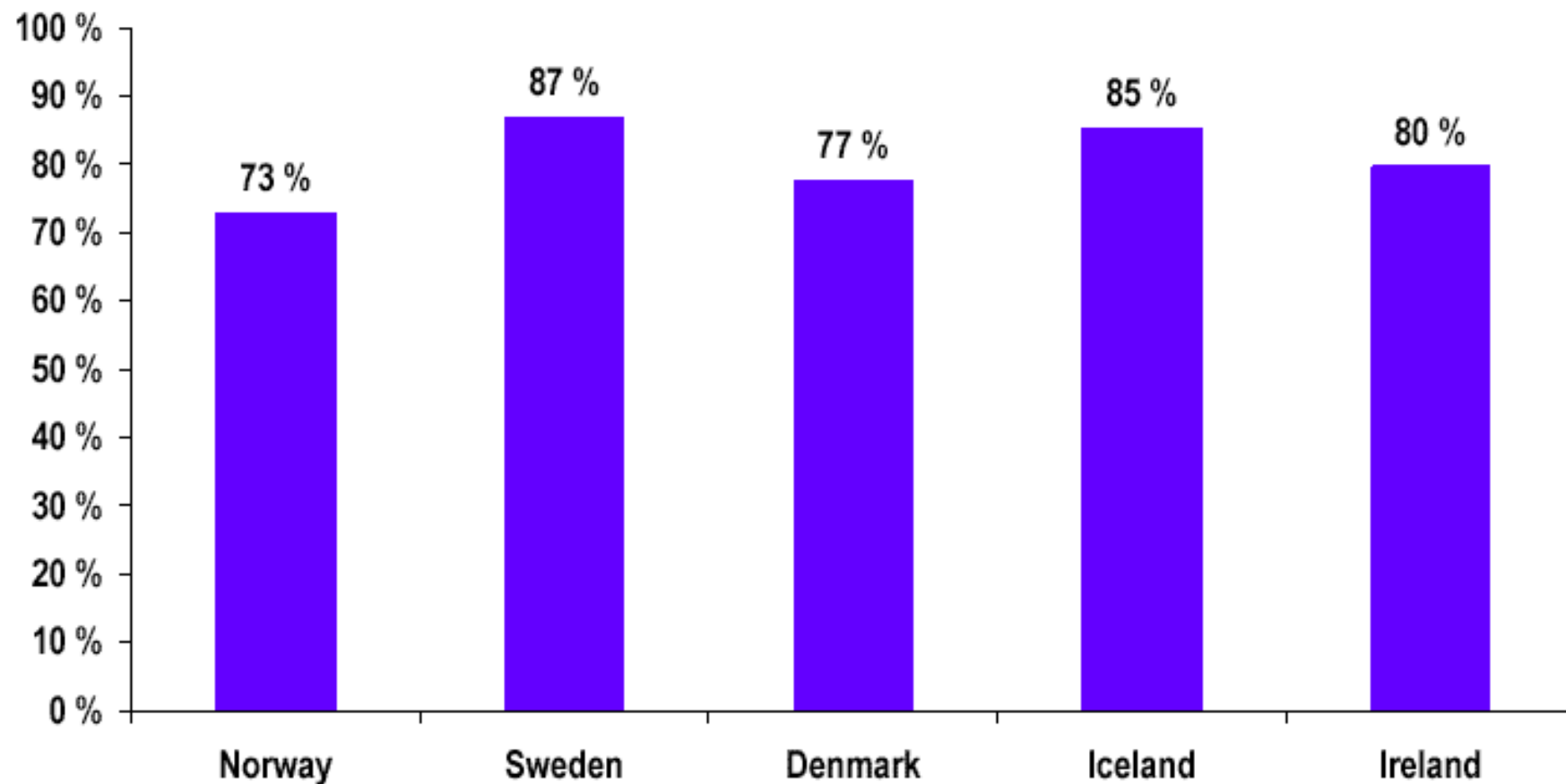
Filter: Use PC



# Q: 13 Do you have an Internet connection at home? **Yes**

**S A F T**

**Filter: Have PC at home**





# 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 - 12 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 - 12 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?

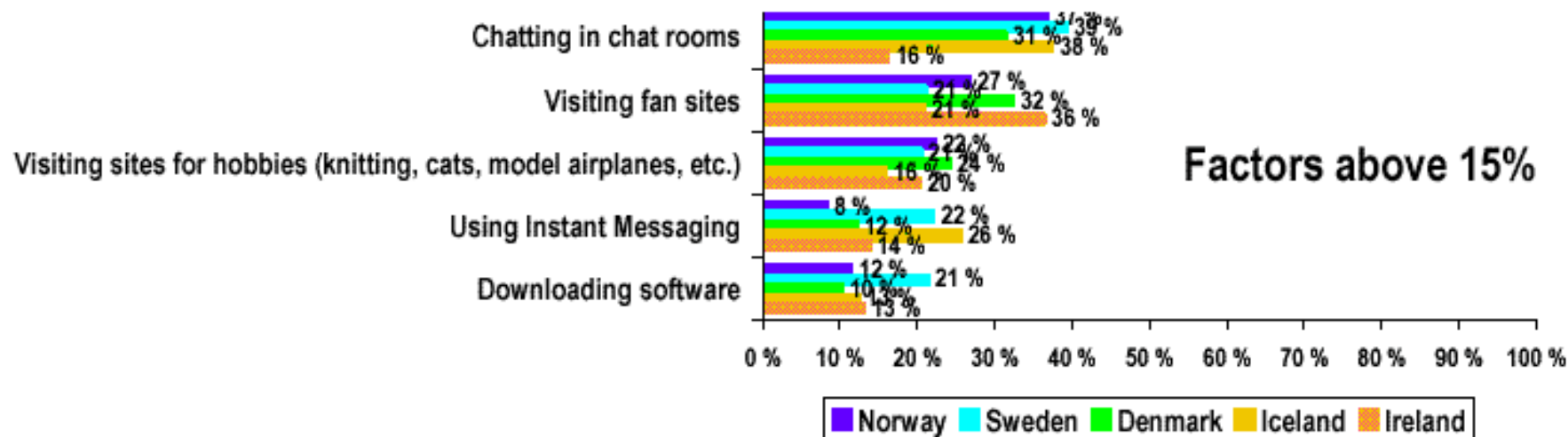
**Filter: Use Internet**

## Girls

## Boys

Playing games on the Internet 58%  
 Sending and receiving e-mail 43%  
 Downloading music 40%  
 Surfing for fun 34%  
 Doing homework 34%  
 Getting information other than for school work 34%

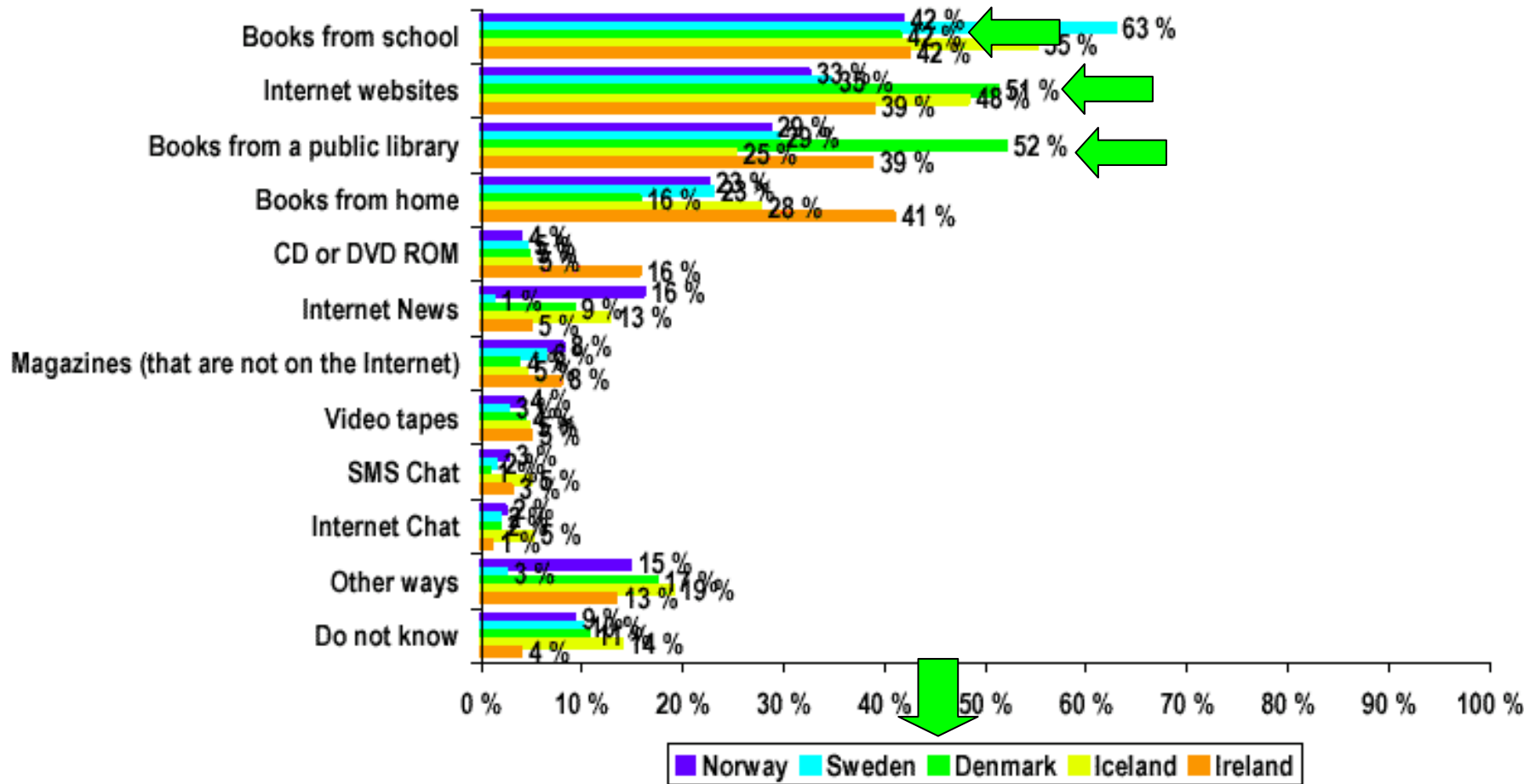
Playing games 66%  
 Download music 49%  
 Surfing for fun 45%  
 Download software 25%  
 Sites for hobbies 23%  
 Watching porno 15%  
 Personal websites 12%



# Q: 28 Which of these are your 3 main ways in looking for information when doing homework?



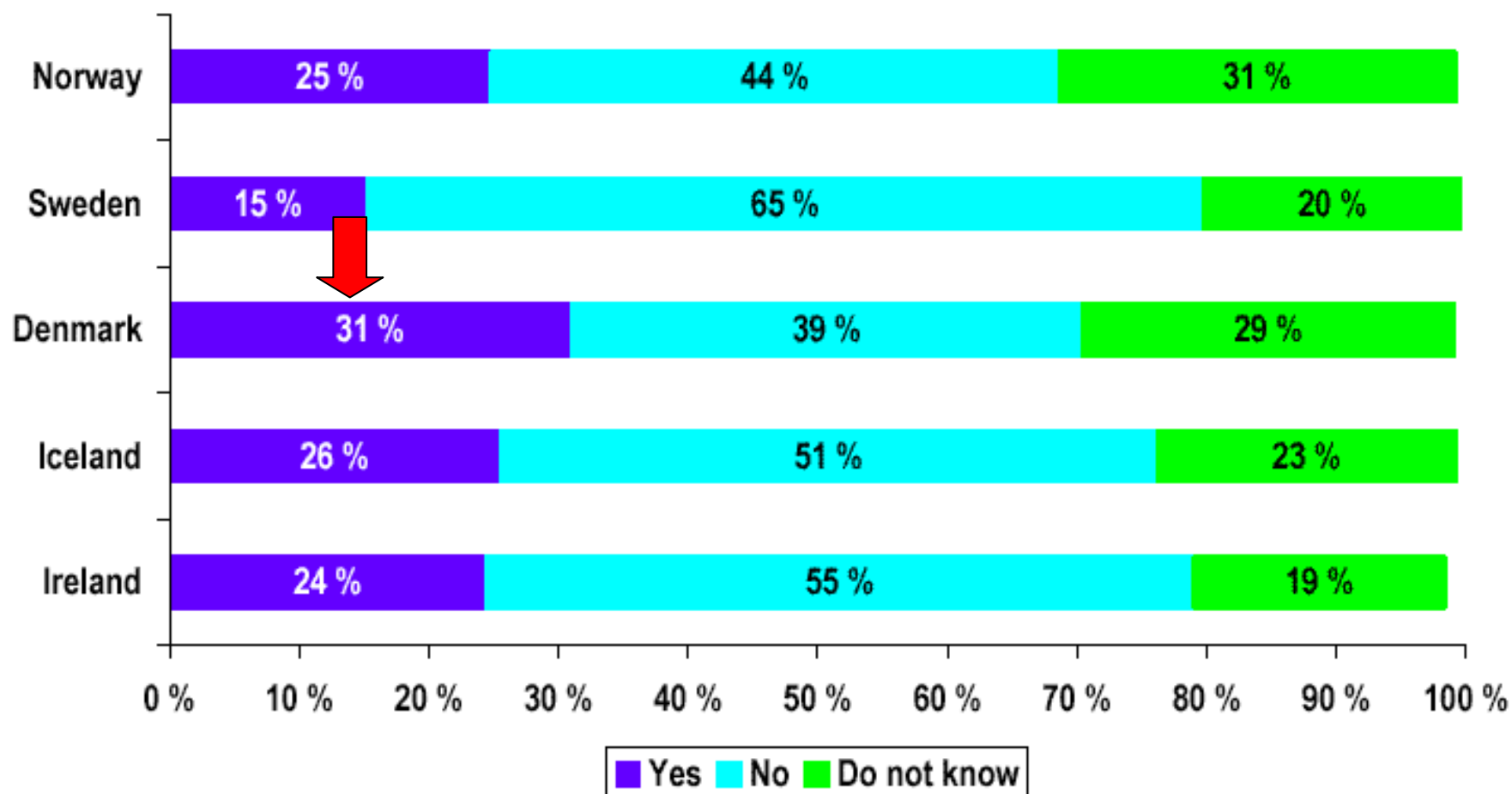
Filter: Use Internet



# Q: 25 Do you ever do anything to confirm that the information you find on the Internet is true and can be trusted?



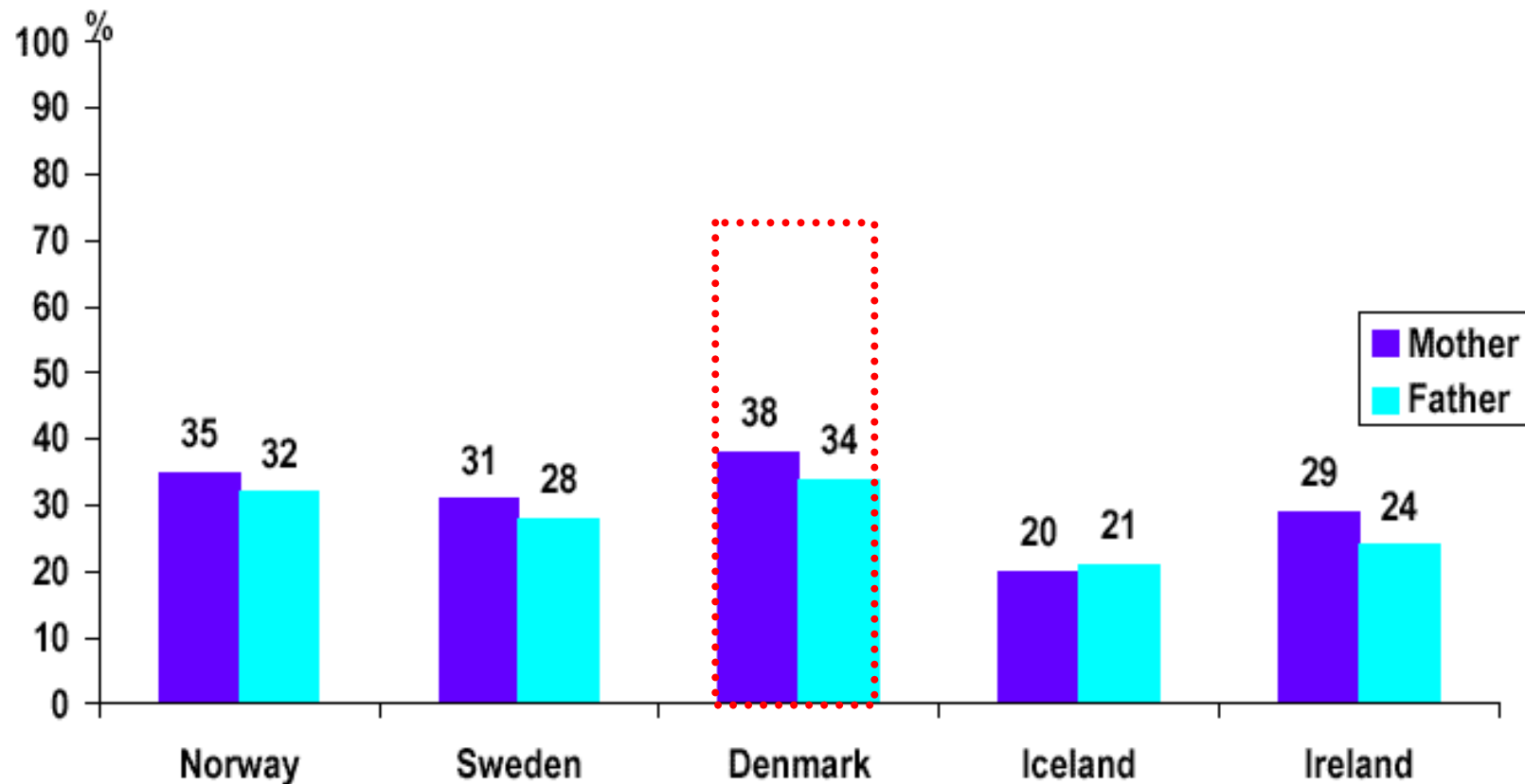
Filter: Use Internet



# Q: 30 How much do you and your parents talk about what you do on the Internet?

**A great deal / a fair bit**

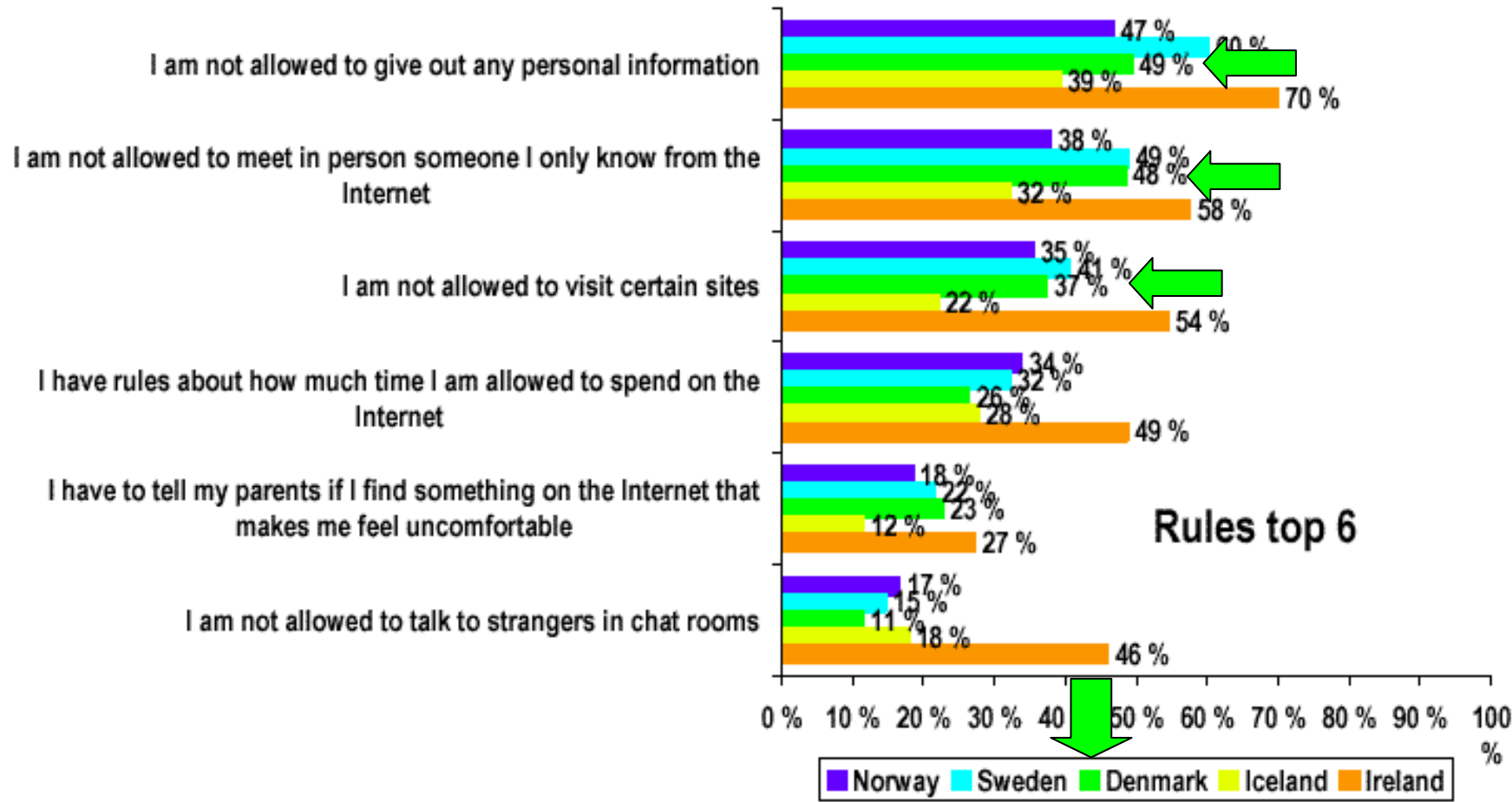
Filter: Use Internet



# Q: 34 Which of the following rules for Internet are in use in your home?



Filter: Go on Internet at home

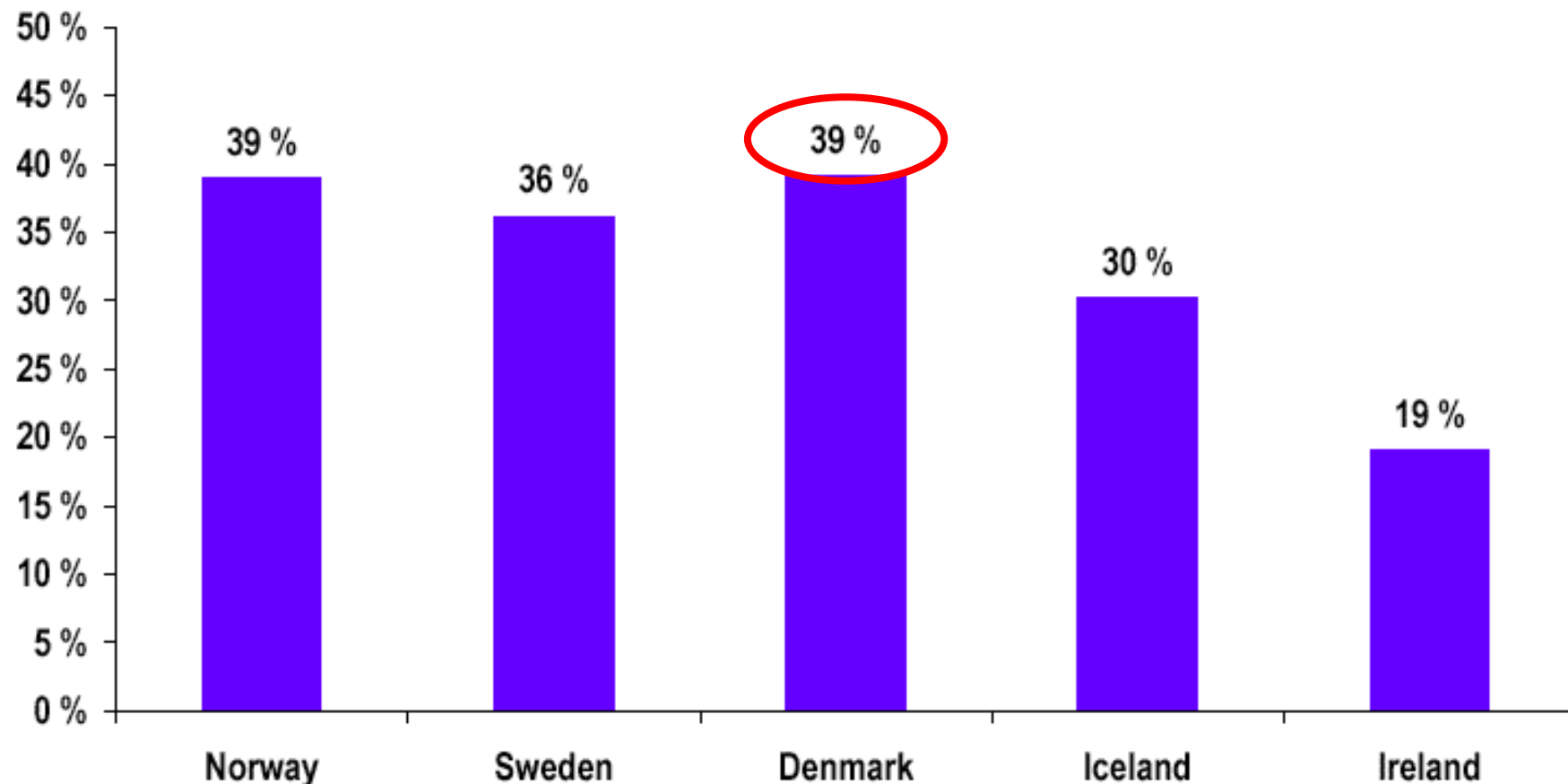


# Q: 39 Have you ever met someone new on the Internet who asked for your personal information?



**Yes**

**Filter: Use Internet**



# The Net generation sub-culture - A first attempt to understand it [comments]



- 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



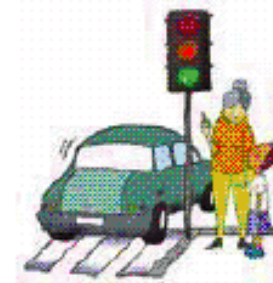
**[comments]**

# The Future of the Protection of Minors - Attitudes and Possible Action



## 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:**

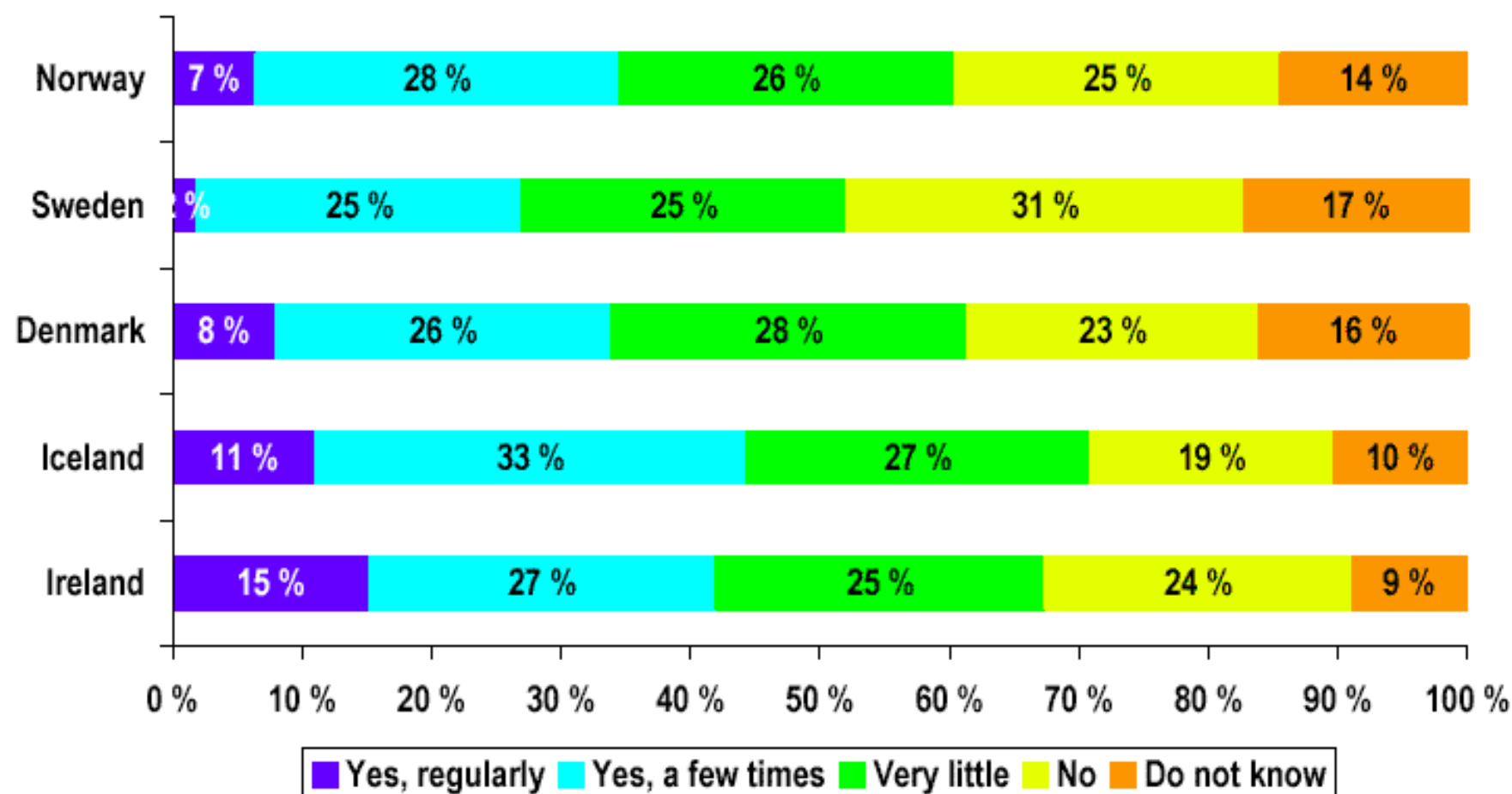
- Peers - friends, schoolmates (53%)
- Parents (38%)
- Trial and error (34%)
- Their teachers (23%)
- Older siblings (21%)
- Websites (8%)
- Libraries (7%)
- Chat pal (7%)
- Magazines (5%)



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



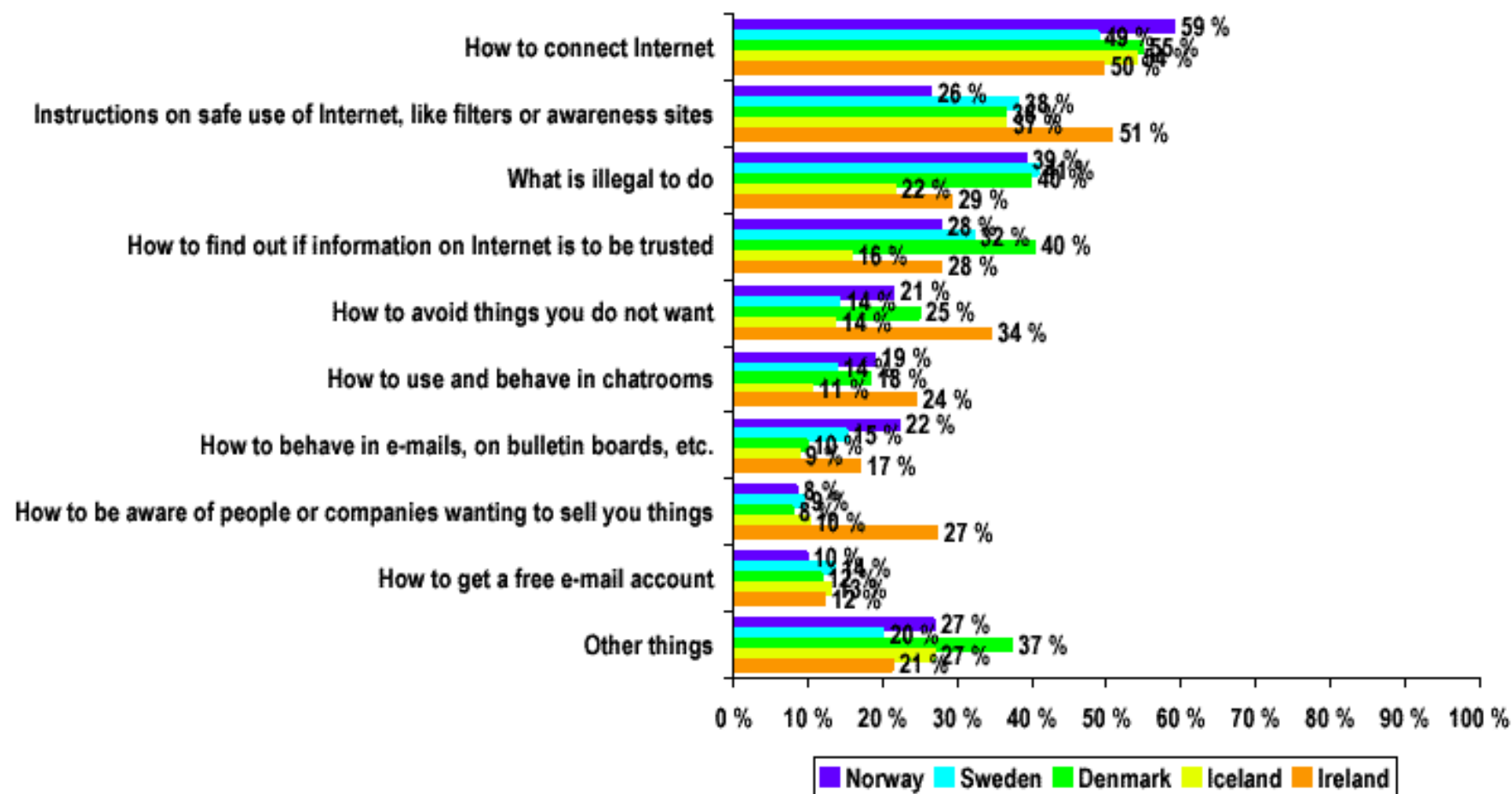
Filter: Total



# Q: 87 What was the education about?

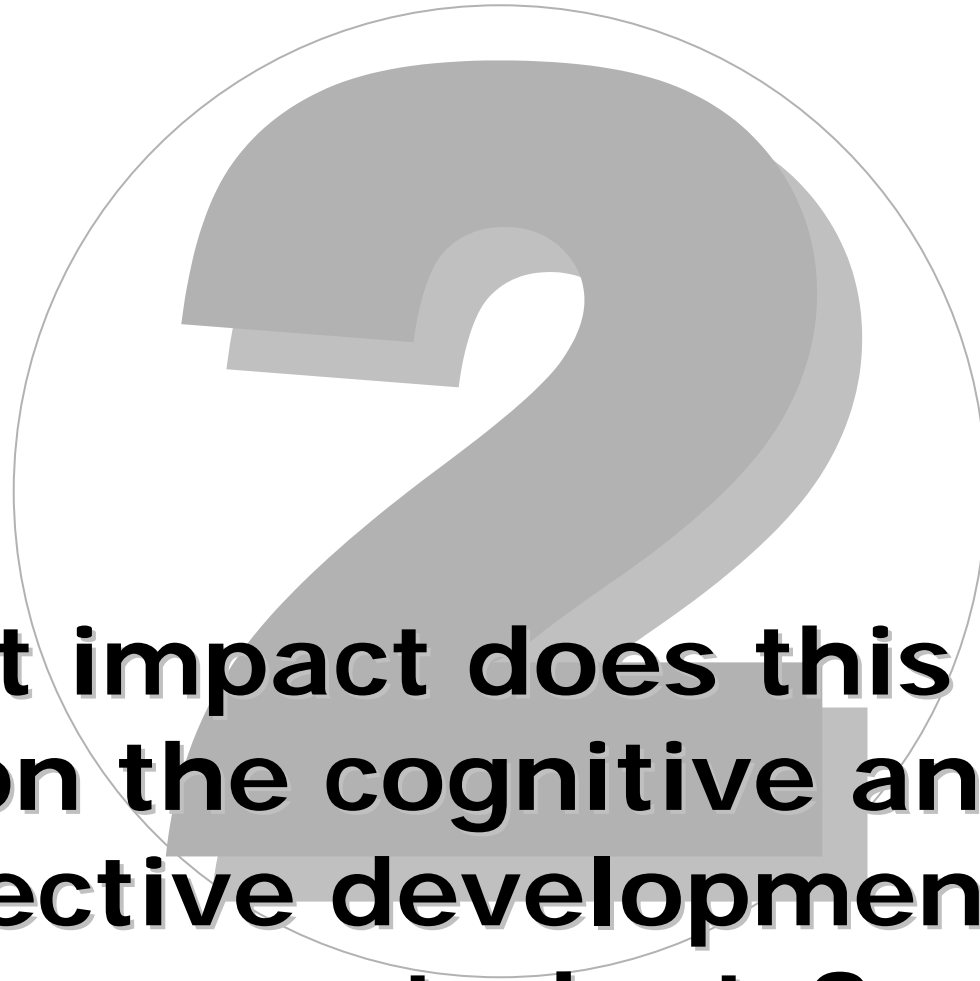


**Filter: Have had education in school regarding Internet use**



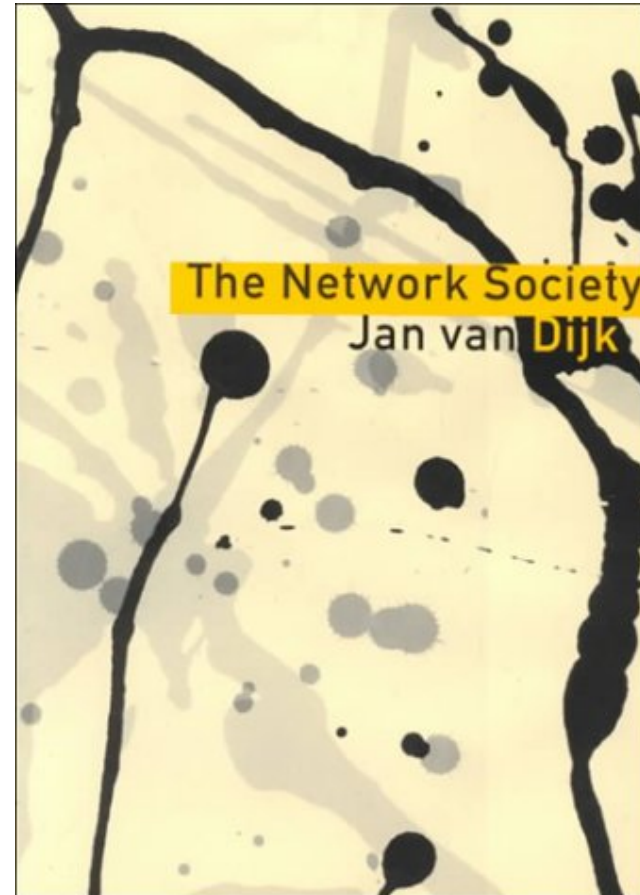
# Current media use - conclusions

- **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?**

# A good research summary...





FOLDERS

COMPUTER

PICTURES

GAMES

PROGRAMS

HOT SPOTS



Wallpaper



INTERNET



EMAIL



EXPLORER



CONTROL



DRIVES

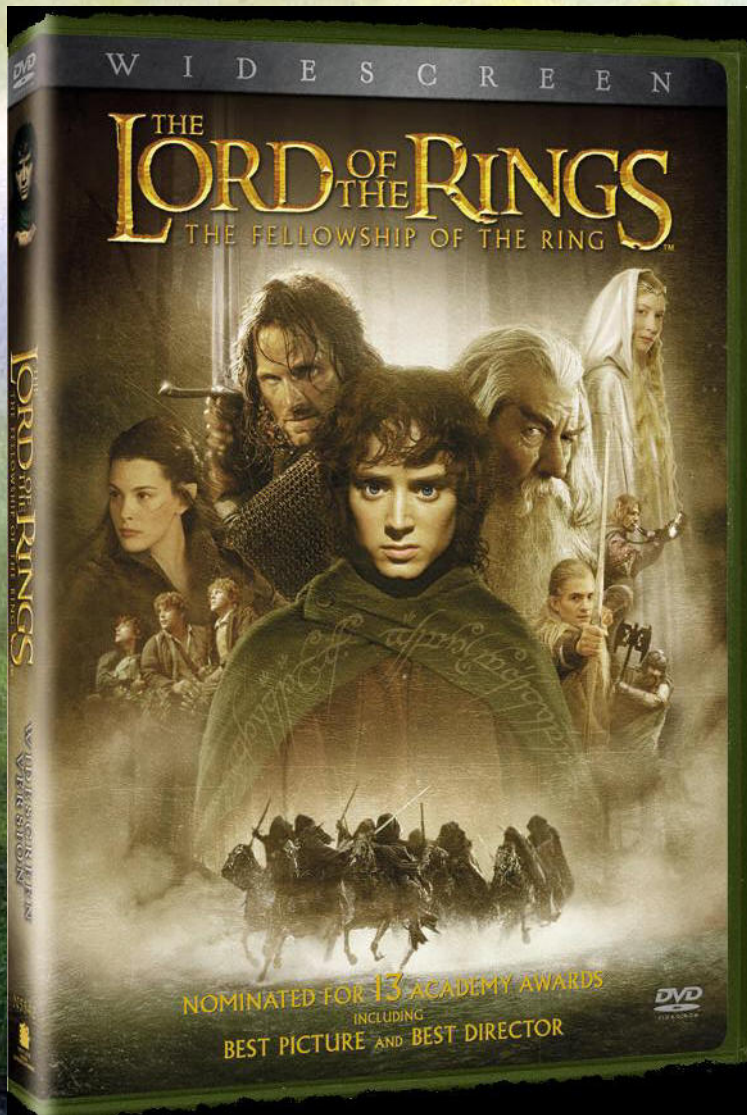


'Screenshot of menus'

START



22:12





**34** ways to  
make history

 [CLICK FOR BRIEFING](#)

Microsoft  
**Combat Flight Simulator 3**  
Battle For Europe

## FIFA 2003

## Robin Hood: The Legend of Sherwood

## Neverwinter Nights

## Jeopardy! 2003

Publisher: Infogrames

Developer: Infogrames

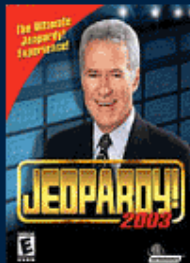
Genre: Puzzle

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 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...**

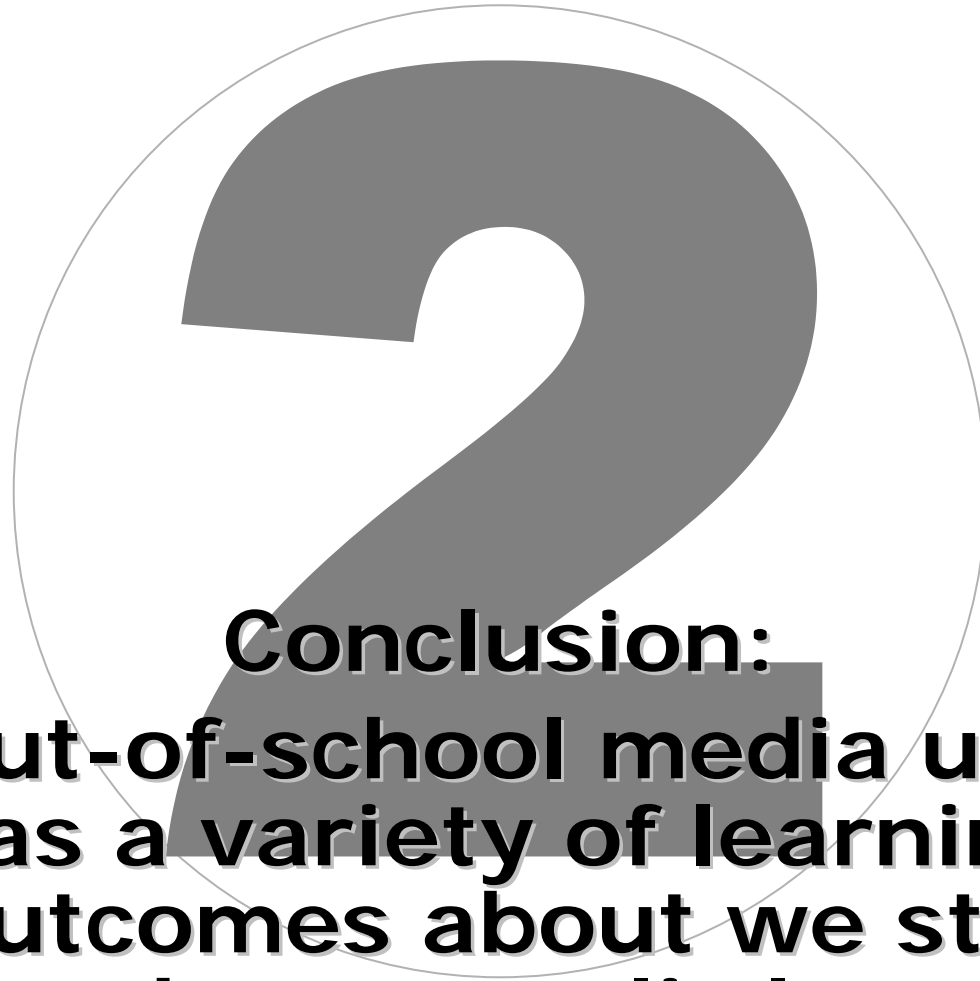
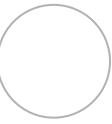
**In reality, a game player chooses when and what to play, and enters into a different state of mind than someone who is required to play on demand”.**

**Goldstein [2000]**

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

3. **Children's Use of the Internet. - Play, sociality and communication.** Paper. Conference: 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**



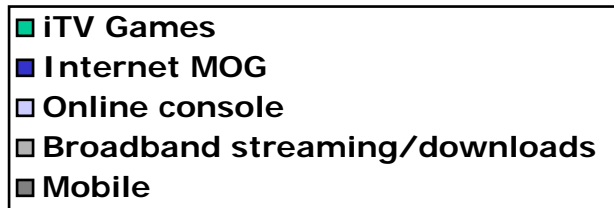
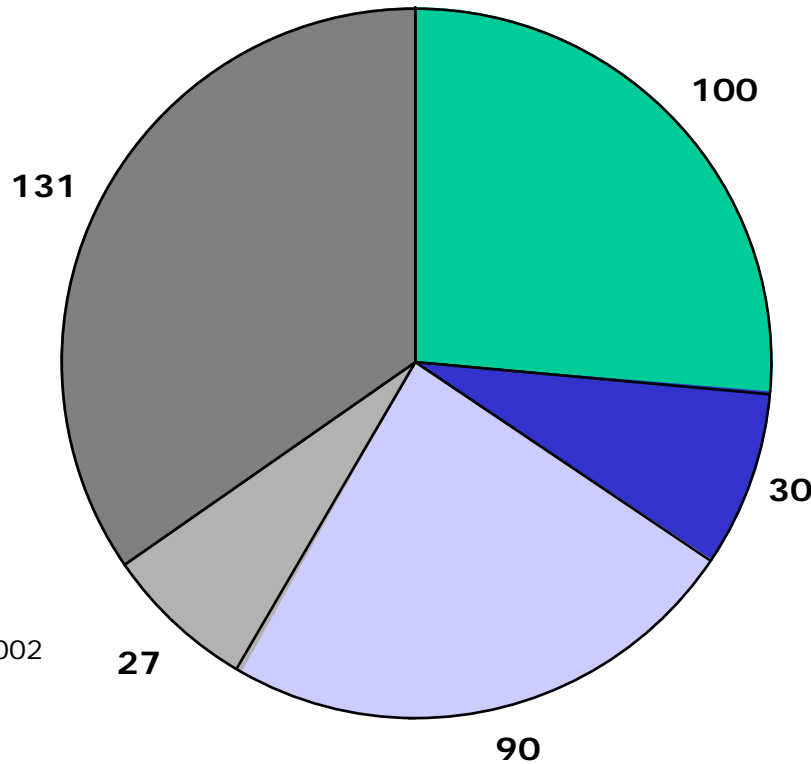
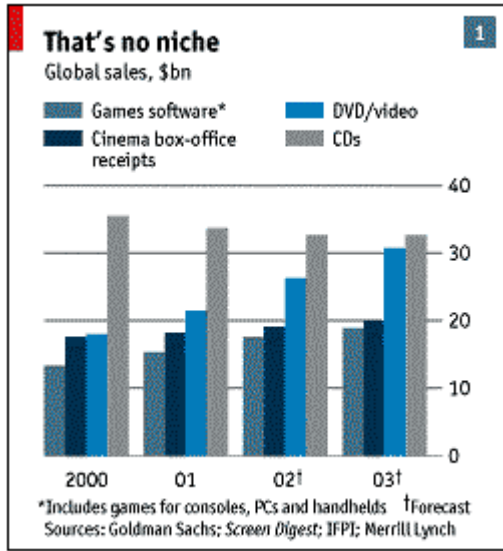
**What are the implications of  
out-of-school media use for  
educational policy and  
practice?**

# 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	<b>11,412</b>	40-44	5,850	9,014	11,473	11,222
35-39	6,640	9,904	<b>10,956</b>	<b>10,155</b>	35-39	6,890	10,078	11,087	<b>9,927</b>
30-34	8,260	10,905	<b>9,674</b>	<b>9,436</b>	30-34	8,476	11,008	9,890	<b>9,146</b>
25-29	9,499	<b>10,658</b>	<b>8,769</b>	<b>9,207</b>	25-29	9,632	10,578	<b>8,855</b>	<b>9,144</b>
20-24	10,515	9,746	<b>9,531</b>	<b>9,889</b>	20-24	10,532	9,389	9,162	<b>10,269</b>
15-19	<b>10,886</b>	9,113	<b>10,226</b>	<b>10,202</b>	15-19	10,609	<b>8,652</b>	9,668	<b>10,788</b>
10-14	<b>9,484</b>	8,810	<b>10,252</b>	<b>10,069</b>	10-14	9,101	<b>8,388</b>	9,765	<b>10,654</b>
5-9	8,822	9,246	<b>10,070</b>	<b>9,348</b>	5-9	8,431	8,816	<b>9,611</b>	<b>9,774</b>
0-4	9,980	9,648	9,682	9,397	0-4	9,530	9,205	9,263	9,815

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

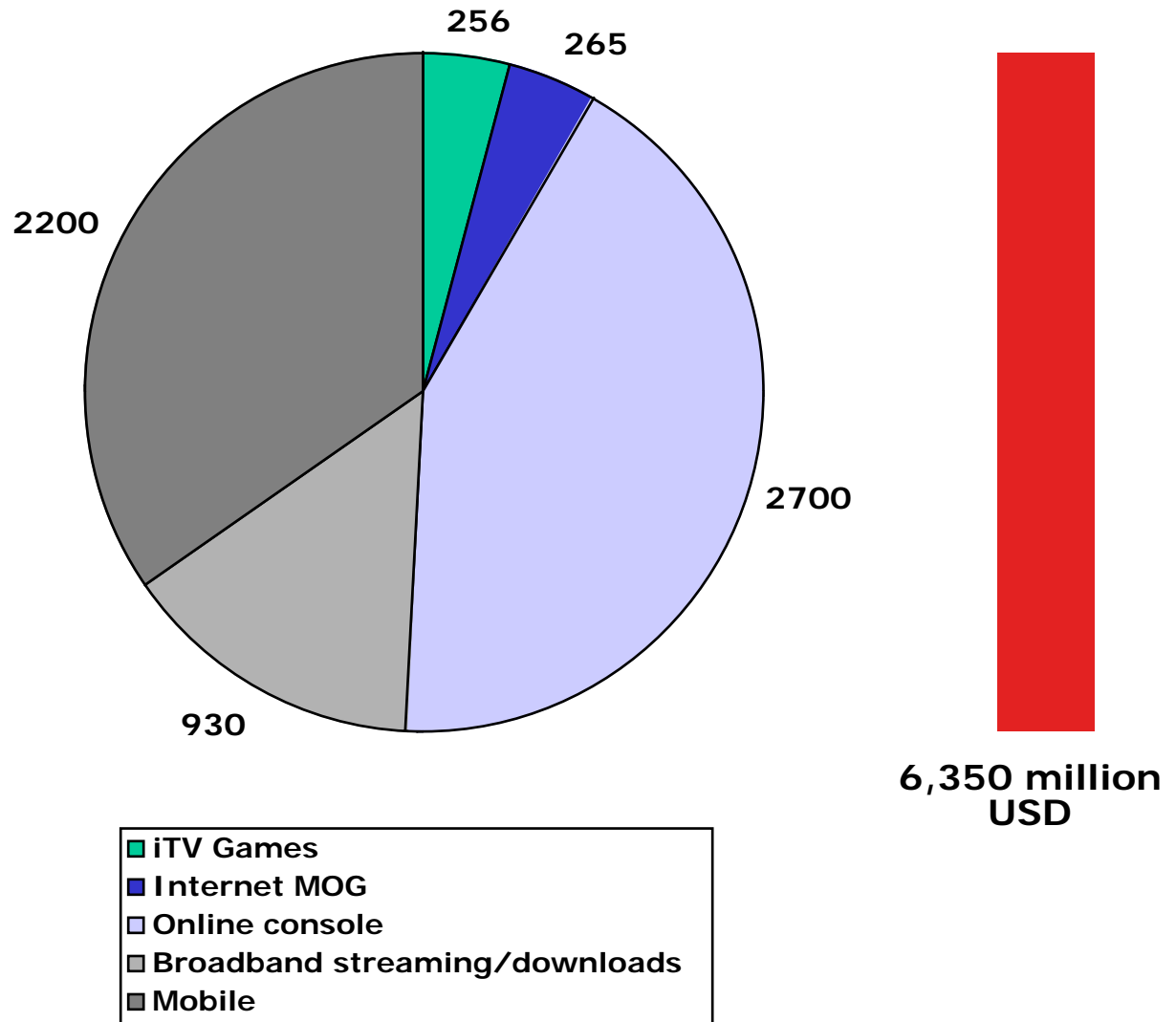
# Games - annual revenues 2002



**380 million USD**

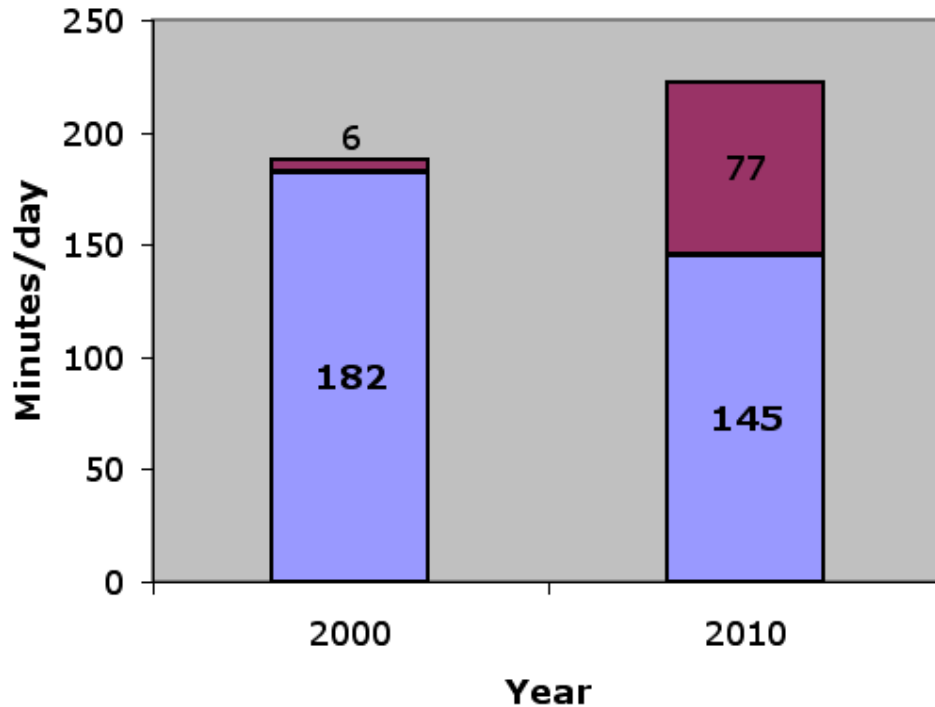
The Economist, Console Wars 20 June 2002

# Games - annual revenues 2006



## 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!**