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EU **Kids Online**

Comparing Children's Online Activities and Risks across Europe
A Preliminary Report Comparing Findings for Poland, Portugal and UK

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This is a report from the *EU Kids Online* network.
For a complete list of participants, see Annex B

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1. Introduction

1.1 European research on children's online activities and risks

In many countries, within and outside Europe, children and young people are gaining access to the Internet and online technologies at a rapid pace. As a recent Eurobarometer survey showed (May 2006), half of all children under 18 years old in the EU25 have used the Internet, with even higher figures applying to teenagers. However, there are substantial differences across countries (ranging from less than a third of children in Greece and Bulgaria to over two thirds of those in Estonia and Denmark).

To understand what these changes mean for children and their families, for their education, leisure, participation and community and, more negatively, for the risk of harm to children and young people, this growing use of the Internet and online technologies is being closely tracked by empirical research. Thus, research teams across Europe are now conducting empirical studies of varying ambition and depth, in order to advise policy-makers how best to maximise the benefits and minimise the risks associated with the changing media environment. Additionally, there have been several cross-national and pan-European studies in this domain, complementing the single-nation studies.

1.2 The value of cross-national comparisons

The challenge in interpreting the significance of this growing body of research lies in bringing them together, so that their collective findings can be integrated and their diverse insights brought into focus. The *EU Kids Online* network is premised on the assumption that a cross-national perspective is vital, for children's experiences of online technologies may differ in different countries, because countries vary in terms of family structures, education systems, attitudes to technology, media regulation, social values, and much more.

As each country seeks to balance the possible failure to minimise the dangers against the equally problematic failure to maximise the opportunities, cultural factors come to the fore. For example, protection of children is a universal value, yet in practice different countries – for reasons of religion, family structure, market competitiveness and media history – regard new online risks through a cultural lens, asserting their own priorities, often motivated by implicit values. To take another example, it may be that the incidence of risk is higher in countries where diffusion has come later, or where media literacy is lower.

Without a comparative perspective, national studies risk two fallacies – that of assuming one's own country is unique when it is not, and that of assuming one's own country is like others when it is not. But how should one avoid these fallacies? Researchers and policy makers are faced with such questions as, is research conducted in Germany applicable in Italy or, do findings from Northern Europe suggest lessons for new accession countries? Partly, this is a methodological matter, as explored in Work Package 4, for one must determine whether survey methods developed in, say, Sweden can be straightforwardly replicated in Belgium? Partly too, it is a matter of the availability of data, as examined in Work Package 1.

But more importantly, it is a question of substantive findings, of the interpretation of results. Do we expect the risks faced by children in one country to be the same as those in another? Can a shared knowledge – of risks, of contexts, of methods, and of local distinctiveness – be established across Europe? Lacking this, each country may, at worst, continue to conduct sporadic research in response to national crises or moral panics, sometimes reinventing the wheel, missing out on lessons learned elsewhere or inappropriately applying them to new contexts. Or each country may assume pan-European similarities, as a matter of convenience or pragmatism, underestimating the importance of local distinctiveness. But at best, we may come to an understanding of where European countries resemble in other in relation to children's online risk and safety, and where – and why – they differ.

1.3 EU Kids Online

To inform this agenda, the EU Kids Online thematic network comprises research teams in each of 18 countries across Europe, tasked with keeping track of recent and ongoing empirical studies. In order to provide a bridge between the specialist domain of empirical research and the policy imperatives of safer Internet initiatives, the EU Kids Online network is examining European research (national and multi-national) on cultural, contextual and risk issues in children's safe use of the Internet and new media. It focuses on the intersection of three domains:

- Children (mainly up to 18 years old), their families, domestic users;
- Online technologies – mainly but not only the Internet; focussing on use and risk issues;
- European empirical research and policy, prioritising the 18 countries in the network.

EU Kids Online outputs are the collective effort of the EU Kids Online network. Network members meet several times per year and work in close contact electronically in between. The editors then integrate contributions and produce the final text for each report.

For further information, see the Annex to this review, and www.eukidsonline.net.

1.4 This report

This report offers an exploration of the comparative process, based on detailed examination of research in three countries. These countries were selected because, first, directly comparable data exist for each country (from the Eurobarometer and Mediappro projects) and, second, because they differ on a range of dimensions. The three countries are Poland, Portugal and the UK.

They are compared here as a test-bed or pilot study for developing an efficient and effective means of comparing 18 countries in the main deliverable for Work Package 3. comparing countries in terms of children's contexts of online activities risk is a difficult task, because of the multidimensional nature of any national context, because the necessary data may be flawed or lacking, and because of the hazard of misrepresenting the complexity of particular findings or phenomena. It is, then, with some caution that we proceed.

This report is the first of two deliverables for Work Package 3: Cross-National Comparisons. The objective of WP3 is to provide a comparative analysis of research findings on the basis of a) cross national studies on children's use of the Internet and on Internet safety issues, and b) national studies on the same topics which have been identified for the Data Repository (Work Package 1).

Thus, this report is labelled 'preliminary' because its aim is to draw on what we know of three countries in order to explore several possible approaches to comparative analysis regarding existing data on children and the Internet/new online technologies in Europe. These approaches are assessed in order to identify a useful and practical strategy for comparison that can be implemented across 18 countries. This 18 country comparison, which represents a major task for the EU Kids Online network, will be undertaken in the year ahead (June 2007-June 2008).

Work Package 3 is being conducted in parallel with others. It thus draws on the online data repository of information about empirical research in this field in Europe (see www.eukidsonline.net), as well as on the methodological work of Work Package 4. It intersects with the work of Work Package 2, which is examining the intellectual, political and cultural similarities and differences in research contexts across Europe. And it informs Work Package 5, which will formulate evidence-based policy recommendations.

1.5 Types of comparative analysis

This identification and interpretation of the pattern of similarities and differences is, in short, the promise of comparative research. In what follows, we draw on the principles of comparative research elaborated by Kohn (1989, see also Livingstone, 2003) to distinguish three types of analysis.[1]

Type 1: Countries as objects in their own right

Treating countries as objects of analysis in their own right employs an idiographic lens. The aim is to understand particular countries for their own sake, with comparison representing a useful strategy for 'seeing better' and so determining what is distinctive (or not) about a country (and thus avoiding both of the above fallacies). Heuristically, this is generally achieved through the production of country reports, each of which presents empirical research findings regarding – in the present case - children, young people and online technologies. The Mediappro project exemplifies this type of comparison.

All EU Kids Online participating teams will contribute to comparative analysis of the first type by producing country reports. To organise the work, and to aid judgements of similarity and difference, a template for national reports will be produced (see draft template in the Annex to this report). The production of these country reports will draw on the work already completed for Work Package 1, in which national empirical research studies are identified, coded and entered into the online Data Repository. However, the work for Work Package 3 will mainly concentrate on the next two types of comparison.

Section 2 of the present report draws on two recent pan-European projects (Eurobarometer and Mediappro[2]) on children's use of the Internet in order to examine the situation in each country in order to recognise what is distinctive or common about each.

Type 2: Countries as context for examining general hypotheses

This type of comparative analysis treats each country as a case study with which to test general theoretical models under different cultural conditions. In other words, it focuses on the assumption of similarities across countries, with cross-national differences thus challenging or limiting pan-national claims. As for type 1, this analysis may be modest in its attempt to capture the complexity of each country compared, but it is more ambitious insofar as it seeks to test the hypothesised universality of a particular phenomenon, pooling findings from many countries in order to establish whether and how an abstract theory applies in each one of those countries. This approach was followed in part by the SAFT surveys and by the "Children and their Changing Media Environment" study.[3]

General hypotheses that might be examined concern developmental trajectories (on the assumption that children develop into teenagers and adolescents similarly across Europe) or gender differences (again, shown to be fairly similar cross-nationally by a range of research) or, additionally, parental mediation of online use by children. Clearly, this type of analysis requires directly comparable data in each country, and the EU Kids Online network must consider the extent to which such data are available in all participating countries.

Section 3 of the present report thus goes beyond the results of the European studies, draws on detailed findings from national studies, in order to examine the kinds of hypotheses that might be tested across the EU Kids Online network during 2007-8. As befits a 'preliminary report', some of these hypotheses are well-grounded in the available evidence but others are more tentative; yet other issues cannot yet be framed as hypotheses and so are presented as interesting questions worthy of further exploration.

Type 3: Countries as units in a multidimensional analysis

This type of analysis seeks to explain patterns of similarities and differences across countries. It thus prioritises the identification of measurable dimensions (for which there is available data) on which nations vary (e.g. gross national product, unemployment rate, etc), and then examines whether these are related systematically to each other or to a particular measure of concern (e.g. incidence of online risk to children). Each participating nation thereby serves as one unit or data source, and must provide measures of both potentially explanatory variables (independent variables) and variables to be explained (dependent variables).

The strength of this approach is that it seeks to understand the diversity of different national contexts, achieving this by re-presenting the specificity of each country using a common conceptual language (i.e. in terms of the interrelations among the multiple dimensions on which each country is compared). It then develops an explanation for observed differences.[4]

The EU Kids Online network aims to identify and account for pan-European similarities and differences in the following areas:

- The incidence of online risk experienced by children and young people in Europe;

- The incidence of online opportunities taken up by children and young people;

- The nature and extent of parental activities that mediate children's online activities.

For example, one may ask, whether certain political conditions or regulatory policies (e.g. pricing policy, regulation instrument) lead to more or less risk and opportunities in a country. Or, whether a greater degree of Internet diffusion result in less, or more, risk to children when they go online, and why?

The Eurobarometer studies provide some data with which to build the first step of this kind of analysis, for the same questions are asked in all countries. Other European-level surveys – the European Social Values survey, for example – should also prove invaluable. Thus EU Kids Online aims to bring multiple data sets to bear on the three areas.

Further, in collecting a considerable body of existing data together across multiple counties, a range of other explanations may also be identified (e.g. explaining cross-national differences in the nature of online access or the extent of Internet use), although the experience of cross-national researchers is that such an enterprise can be demanding and difficult.

Hence the present report seeks to scope some practical options for comparative analysis to be undertaken by EU Kids Online during 2007-8. It offers a realistic assessment of the viability of different strategies, before the 18 country comparison is begun. Section 4 of the present report explores this type of comparative analysis.

1.6 Structure of the research field

Children and young people access and use online technologies within a broader context – domestic, familial, social, cultural, political, economic. Many factors may potentially influence their use in general and the risks they may encounter in particular. To organise the potentially vast array of factors, we have classified these factors as dependent, independent, mediating and contextual variables, as explained below.

We note, first, that the focal concern of EU Kids Online is children's online risks and opportunities – these are, therefore, our main dependent variables. Exactly what 'risks' and 'opportunities' includes is a moving target. But it may reasonably be scoped as follows:

Online opportunities

- Access to global information
- Educational resources
- Social networking for old and new friends
- Entertainment, games and fun
- User-generated content creation
- Civic or political participation
- Privacy for expression of identity
- Community involvement/activism
- Technological expertise and literacy
- Career advancement or employment
- Personal/health/sexual advice
- Specialist groups and fan forums
- Shared experiences with distant others

Online risks

- Illegal content
- Paedophiles, grooming, strangers
- Extreme or sexual violence
- Other harmful or offensive content
- Racist/hate material/activities
- Advertising/commercial persuasion
- Biased/misinformation (e.g. advice, health)
- Exploitation of personal information
- Cyber-bullying, stalking, harassment
- Gambling, financial scams
- Self-harm (suicide, anorexia, etc)
- Invasions/abuse of privacy
- Illegal activities (hacking, downloading)

Note that updating, interpreting and categorizing these opportunities and risks is part of the task of this work package; see later for a classification of risks online, a classification that may also be extended for online opportunities. Moreover, we recognize that there is no easy line to be drawn between risks and opportunities, and that what adults consider risks, children may

define as opportunities. The above lists are simply intended to scope the range of research topics, so that cross-national variations can be identified and explained.

The experience of online opportunities and risks is expected to vary according to children's age and gender, as well as by the socioeconomic status (SES) of the household (or other stratifying factors such as parental education or urban/rural location). These socio-demographic factors are the main independent variables to account for differences in opportunities and risks, though others may arise as the research findings are more closely examined.

These socio-demographic factors also influence children's Internet access, their online usage, and their Internet-related attitudes and skills. These latter may thus be considered mediating variables, for they are both influenced by socio-demographic factors and they may also, in turn, influence online opportunities and risks.

Additional mediating variables are introduced by the activities of others – parents, teachers and peers. Parents mediate, or regulate, their children's online activities, thereby potentially influencing their experience of opportunities and risks. For teachers and peers, further influences may be expected, though parental mediation has been more researched than teacher or, particularly, peer mediation. Such mediating processes may, in turn, be influenced by, for example, parents' own Internet use, or teachers' online skills, or domestic practices of media regulation more broadly.

Finally, we note key contextual variables likely to affect children's online experiences. These national or macro-societal factors include a) the media environment, b) ICT regulation, c) the public discourse on children's Internet use and possible risks of the Internet, d) general values and attitudes regarding education, childhood, and technology and e) the educational system.

A framework that includes each of these key variables is shown in Figure 1. It provides a heuristic device for categorizing these variables and, therefore, for specifying the hypothetical links among them. It will be observed that the research field is divided, first, into an individual (or child-centred) level of analysis for examining patterns of similarity and difference within countries; and second, into the country (or macro-societal) level of analysis for examining patterns of similarity and difference across countries.

Note that it is not our intention to focus on the individual child separated from their social context but rather to show how children are precisely located in a network of social influences at all levels from the familial to the societal. Analytically, however, it is useful to distinguish intra-country comparisons, for which the individual child is the unit of analysis, from inter-country comparisons, for which the country is the unit of analysis.

Thus, Figure 1 represents a working hypothesis by which observed similarities and differences across countries in children's experiences of online opportunity and risk may be explained in terms of the key variables identified in the research literature.

Figure 1: Overview of the structure of the research field
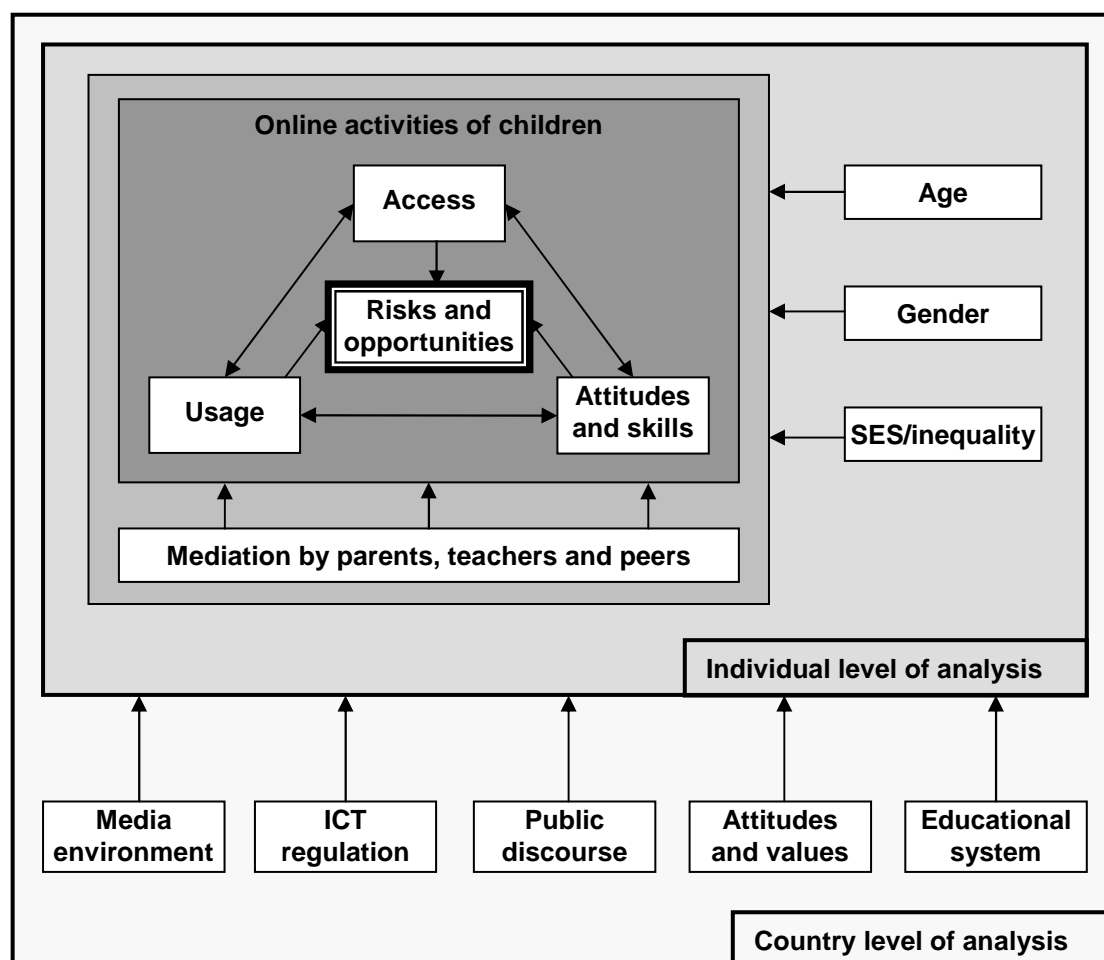
1.7 Reflections on a systematic approach to risks and opportunities

In order to analyse actual experiences with Internet related risks and opportunities throughout Europe, we will have to bring together case studies on the national level. In these studies risks and opportunities are defined quite heterogeneously. In order to have a chance to relate these studies to each other a systematic approach to the definition of Internet related risks has been developed.

The overall model is as follows (see Figure 2). Risks and opportunities refer to negative or positive experiences that might happen. In our research we have to distinguish between a) actual experiences, b) the perceived probability, and c) the statistical probability to actually encounter these negative/positive experiences.

For the following considerations we focus on risks, but the same can be done for opportunities (see below). Negative experiences result from transactions between communicators, the content/services they provide and the user. The two necessary conditions for these transactions are:

▪ Access: This is the obligatory condition for any negative or positive experience related to the Internet and so may be regarded, in itself, as either "risk" or "opportunity". There will be differences between various places or occasions where children have access, e.g. at home, at school, with friends, which differ with respect to the degree of regulation or guidance by parents, teachers etc.

▪ Usage: Given access, the nature of children's use of online media is also a crucial condition of risk. The longer children use online media and the more they use certain services, the more likely they are to encounter certain negative experiences. However,

beyond children's preferences for more or less risky online activities, factors such as children's online skills and media literacy may exacerbate or alleviate risks.

The table on the top right side of Figure 2 proposes to classify different types of risks. The starting point was the question: "What processes lead to different risks?" The model assumes a transaction between communicative motivations and the role of the child when using online media. The row headings of the table refer to the forms of communicative roles:

- Content – child as recipient (of mass communication)

- Contact – child as participant (of peer/personal communication)

- Conduct – child as actor (offering content or acting in personal contacts)

The column headings refer to motivations leading to risks – potentially problematic things associated with:

- Commercial interests

- Aggression

- Sexuality

- Values/ideology

Each of the twelve cells provides some examples for the specific type of risk which arises from the transaction between the respective motivation and the child's role.

In the lower part of the figure we note which negative consequences or effects might follow from the four motivations and their transaction with the child's behaviour. An additional area of negative consequence is linked to the usage factor: independent of certain risks which might arise from specific negative motivations, time consuming online activities (sometimes interpreted as Internet addiction) may be negative consequences of Internet usage.

This typology of risks related to children's online media shall help to build our analyses within the EU Kids Online framework on a common structure. It shall also help to link certain kinds of risks to certain theoretical concepts which might help to explain risk behaviour.

Of course, we have to note the limitations of this model:

- Sometimes boundaries are blurred – e.g. elements of aggression linked with sexuality.

- Issues of privacy and personal information cut across cells.

- It may be discussed whether the sexuality category is suitable, and whether paedophilia and porn should be split up. However, it was decided to keep 'sexuality'. This category includes sexual elements that are neither porn nor paedophilia (e.g. sexual harassment).

In principle, an equivalent table could be drawn in relation to opportunities. For example, only a few possibilities and examples are sketched out below.

	Education and learning	Participation and civic engagement	Creativity	Identity and social connection
Content	Websites supporting learning	Websites supporting participation		
Contact	Forms of contact with others that support learning	Forms of contact with others that support participation		
Conduct	Forms initiated by the child			

Motives / Child's role	Commercial interests	Aggression	Sexuality	Values/ ideology
Content (What is found on the web) "Child as recipient"	Advertising, exploitation of personal information	Violent web content	Problematic sexual web content	Biased information, racism, blasphemy, health "advice"
Contact (Someone else making contact) "Child as participant"	More sophisticated exploitation, children being tracked by advertising	Being harassed, stalked, bullied	Being groomed, arranging for offline contacts	Being supplied with misinformation
Conduct (Child contacts someone) "Child as actor"	Illegal downloads, sending offensive messages to peers	Cyberbullying someone else, happy slapping	Publishing porn	Providing misinformation

Access

At home or at school or with friends, controlled by whom?

Usage

Which kinds of services for which purposes? Frequency and duration of use

Time, addiction, dependency

Financial consequences, privacy in commercial respect

Harm, anxiety, aggressiveness

Personal contact with strangers, harm, sexual orientation

Orientation to aspects of real life (health, politics, etc.)
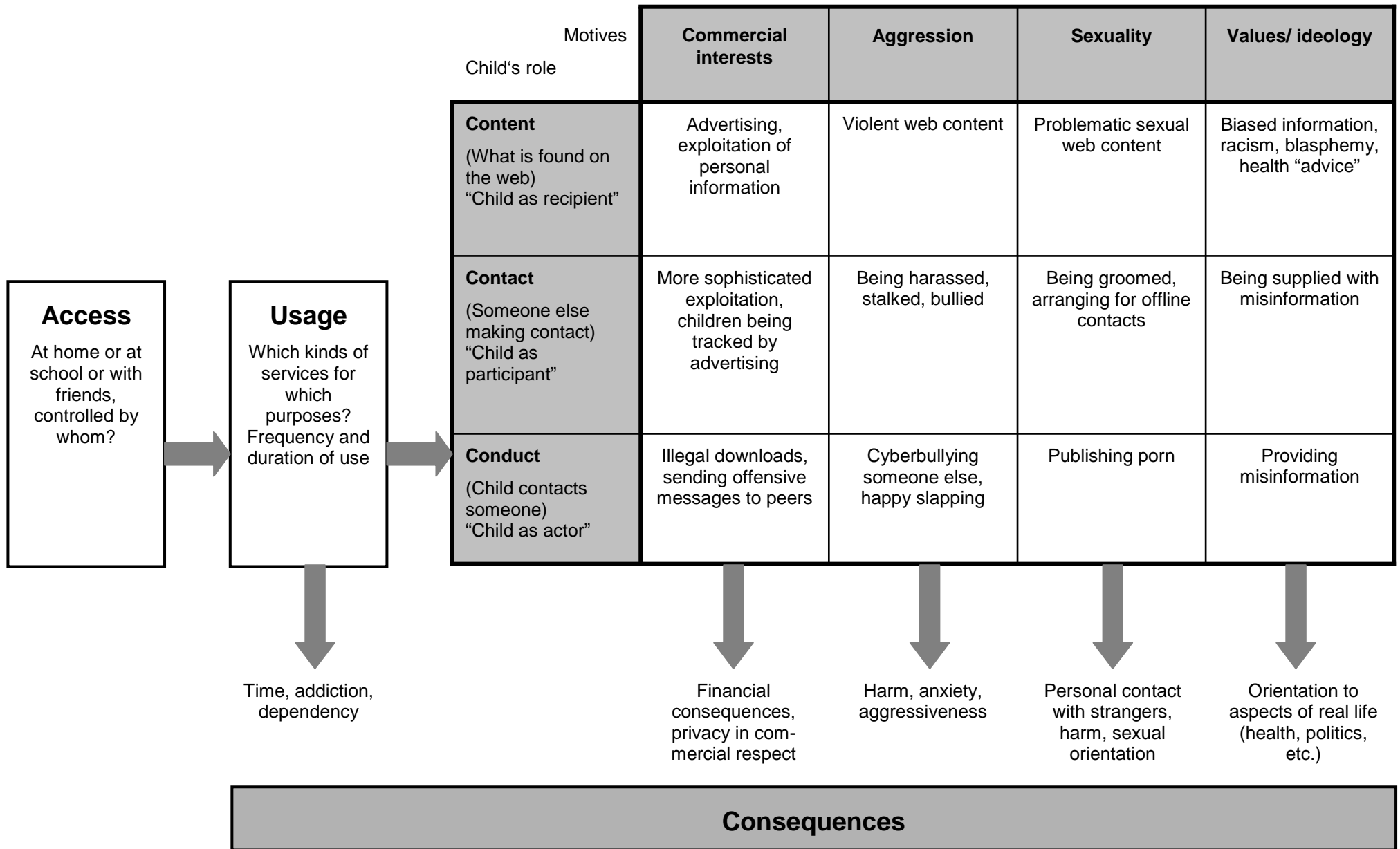
Consequences

Figure 2: Risks as transactional results of access, usage, the child's role, and the underlying communicative motivation leading to negative consequences

1.8 Organisation of this report

Section 2 examines each of the individual-level factors in Figure 1, drawing on the available pan-European data. In other words, it asks how much we can learn from research conducted across most or all of our 18 countries. It thus examines each mediating and dependent variable in turn (access, usage, attitudes and skills, risks and opportunities, and parental mediation). Each is considered in relation to the independent variables of age, gender and SES. This descriptive account (i.e. comparative analysis type 1) sets the scene for the cross-national comparisons to follow by identifying patterns of similarity and difference at both individual and country levels.

Section 3 remains focused on the individual level. Here the aim is to formulate and test hypotheses regarding the relations among access, usage, attitudes and skills, risks and opportunities and parental mediation, according to age, gender and SES. Thus we treat the countries as a locus for testing general hypotheses that are assumed to hold constant across countries (i.e. comparative analysis type 2). To complete our account, we also draw here on national studies conducted in each country where appropriate.

Section 4 adopts the country level of analysis, treating countries as units in a multi-dimensional analysis (i.e. type 3). Similarities and differences across countries in the core factors (shaded dark in Figure 1) are related to specific indicators developed for the contextual variables (see bottom of Figure 1). The aim is to examine the explanatory potential of the contextual factors in accounting for cross-national differences in the core factors.

Throughout this report, we consider the three test-case or pilot countries of Poland, Portugal and the UK. In our conclusions, we discuss how each section, or each type of analysis, could be scaled up for the 18 country comparison to be conducted during 2007-8.

2. Pan-European research

2.1 Profile and methodology of the studies

Two studies, both funded by the EC Safer Internet programme, were identified as addressing the core concerns of EU Kids Online, the first encompassing all 18 countries, the second encompassing nine of them. For our present purposes, both have significant advantages and some limitations. Below, we examine in how far they are informative of the similarities and differences across countries in relation to the variables identified in Figure 1.

Eurobarometer

In 2005 the Directorate General for Information Society and Media commissioned a Special Eurobarometer Survey on issues related to "Safer Internet". The survey covers 25 Member states, candidate states (Bulgaria, Romania) and accession countries (Croatia, Turkey). The fieldwork was conducted in December 2005/January 2006.

Survey respondents were adults, with questions regarding safer Internet issues asked onto those to respondents who had a child under 18 living in their household and under their responsibility. Consequently, it is important to note that respondents are not necessarily the child's parents but could be older siblings or other carers; nevertheless, in what follows, respondents are referred to as parents.

In what follows, the Eurobarometer data have been re-analysed in order to distinguish findings divided by gender and age. We thank the Safer Internet Programme for making this data set available.

The sample is shown in Table 1 for the three countries being compared here. Note that Portuguese respondents were least likely to have a child in their household[5]. Furthermore, the proportion of younger children (under 6 years) is substantially higher in the UK sample (34.7%) than in the Portuguese (29.5%) and in the Polish sample (28.5%); this may influence comparisons among countries.

Table 1: Overview of cases available for analyses per country and per group

	PL	PT	UK	EU25
Respondents (weighted for UK / EU 25)	1000	1004	1310	24738
Respondents with at least one child under 18 years old	340 34%	241 24%	429 33%	7560 31%
Boys	162	110	211	3713
Girls	178	131	218	3843
Under 6 years	97	71	149	2414
6-7 years	48	19	45	799
8-9 years	36	37	55	871
10-11 years	36	22	39	763
6-11 years	120	78	139	2432
12-13 years	39	34	55	908
14-15 years	43	32	56	906
16-17 years	41	26	30	896
12-17 years	123	92	141	2710

Source: Special Eurobarometer 250

Mediappro

Funded by the EC Safer Internet Plus Programme, the Mediappro project surveyed 7393 students, aged from 12 to 18 years, from 9 countries of the European Union (Belgium, Denmark, Estonia, France, Greece, Italy, Poland, Portugal and United Kingdom) from September 2005 to March 2006. (A parallel survey was conducted in Quebec at the same time, with 1350 students). Each national team selected the participants from their schools with the consent of school principals and parents. Schools were selected according to their geographical location and their social, economic and cultural setting.

Three school grades, representing three age groups, were 12-14 (beginning of secondary school), 15-16 (middle of secondary school), and 17-18 (end of secondary school). A detailed common questionnaire was used, with 63 items. Based on the results of this quantitative phase, 240 young people (24 in each country) were selected according to their different levels of Internet usage, ages and gender, for individual interviews. Each interview took place at school and lasted about 40-60 minutes, and was based on a grid elaborated by the consortium and in coherence with the questionnaire each young people had completed.

2.2 Comparative results

Since the Eurobarometer data permit easier cross-national comparisons, the following paragraphs will mainly rely on these data. Other studies are included when they provide relevant information which complements, supports or questions the Eurobarometer results.

Access

Access to the Internet and other online technologies is the necessary condition for any use and any risk and opportunity for children. During the diffusion process from its early stages through to market saturation, measures of access differentiate among households (and countries) in terms of digital inclusion or exclusion. Some information on how many children are able to access the Internet can be inferred from national statistics on the percentage of households and schools connected to the Internet (see section 4). But it is also important to consider the online opportunities and risks that may result from individual variation in the nature and quality of access. Hence we ask, which children have (better) access to the Internet, and which children have no or just rather restricted access?

Although the studies selected here do not provide substantial information, some useful information is available:

- Mediappro included a question on the availability of a broadband connection at home – the figures are 56% for the 12 to 18 years old in Poland, 75% for Portugal, and 65% for the UK.

- Eurobarometer did not ask whether children had access to the Internet but rather whether, according to the adult respondents, the child uses the Internet in various places. It found that in 2005-6, every second child in the 25 member states uses the Internet (see Table 2). Whereas Poland and Portugal are below this level, the number of children in the UK who use the Internet is higher. This finding is even more noteworthy since, as seen above, the UK sample includes more younger children than the other two samples.

Table 2: Children's Internet use at any place

	PL	PT	UK	EU25
Respondents with children (n)	340	241	429	7560
Total	47	38	65	50
Boys	48	40	64	52
Girls	46	36	65	49
Under 6 years	9	3	17	9
6-11 years	38	31	82	51
12-17 years	86	72	98	87

Source: Special Eurobarometer 250

- Eurobarometer found no "gender gap" regarding Internet use, neither in Europe as a whole nor in the three countries analysed in this report.

- Use of the Internet is closely related to age: children between 12 and 17 years approach a 100 per cent reach of the Internet. The difference between the UK and the other two countries arises mainly for the 6 to 11 year olds: in this age group, UK children are more likely to use the Internet than in the other two countries and in Europe as a whole.

- Regarding the places where children use the Internet, all three countries which have been selected for this report differ from the European results (see Table 3): for the EU25, slightly more children use the Internet at home than at school, but our three countries show substantially higher figures for schools.

- Particularly the UK seems to provide extensive access to the Internet at schools; the relatively high usage figure for 6-11 year olds largely derives from their greater use of the Internet at school, compared to other countries (see Table 3): 76 per cent of UK children between 6 and 11 years use the Internet at school, compared with the European average of 33 per cent.

- Possibly also noteworthy is the finding that Polish children use the Internet frequently in an Internet café, whereas in the other two countries as well as on the European level this place is far less important.

- The Mediappro survey confirmed the Eurobarometer finding that the greatest use of the Internet by children is at home – where use is more frequent, for longer periods and for the widest variety of activities.

Table 3: Children's Internet use at different places (%)

	PL	PT	UK	EU25
Respondents with children (n)	340	241	429	7560
At any place	47	38	65	50
At home	22	16	45	34
At school	33	27	58	33
At a friend's home	9	6	20	16
At somebody else's home	2	2	11	5
In an Internet café	8	1	2	3
In a library or another public place	2	4	9	4
Somewhere else	1	1	1	1

Source: Special Eurobarometer 250.

- The Mediappro (2006) findings appear on first sight to contradict the Eurobarometer findings (see p.13). They found that, when asked where they use the Internet "every day or several times a week", the figures are higher in all three countries for use at home (PL: 68; PT: 62; UK: 79) compared with school (PL: 45; PT: 22; UK: 56).

It seems likely that this difference arises because Eurobarometer asks parents about their children while Mediappro asked children themselves; further, Eurobarometer concerns any use while Mediappro concerns frequent use – UK 6-11 year olds do have high access to the Internet at school, but this is not necessarily as frequent as use at home.

- For mobile phone ownership, differences between the three countries are less significant. The Eurobarometer survey shows that access is highest in the UK and lowest in Poland, and that girls are slightly more likely to own a mobile phone than boys. In all countries, mobile phones tend to become an omnipresent equipment for young people over 12 years old[6] (see Table 4).

Table 4: How many children own a mobile phone? (%)

	PL	PT	UK	EU25
Respondents with children (n)	340	241	429	7560
Total	32	35	40	36
Boys	29	35	40	36
Girls	35	36	41	37
Under 6 years	3	0	3	2
6-11 years	18	21	32	23
12-17 years	68	75	86	79

Source: Special Eurobarometer 250

Usage

- According to Mediappro (2006: 12), the use of search engines is the most common activity in all three countries (more than 90% of young people who use the Internet, see Table 5; NB Eurobarometer did not ask about online activities).[7]

- The second important activity in all three countries is communication, i.e. e-mail (between 62 and 81 per cent) and Instant Messaging (between 75 and 78 per cent).

- There are few cross-national differences in usage evident, although the UK teens prefer email and are commensurately lower in their use of chatrooms.

As the authors emphasize (ibid.), the declining role of chat rooms and the increase in using instant messaging in those countries with higher Internet diffusion indicates that in the long run, teenagers may be more interested in communicating with friends rather than strangers.

Table 5: Activities on the Internet (% sometimes/often/very often)

	Search engines	Email	Instant Messenger	Chat rooms	Downloading
Belgium	95	74	81	28	58
Denmark	92	66	87	26	50
Estonia	90	69	88	33	73
France	94	97	69	32	49
Greece	81	46	39	41	65
Italy	86	59	49	33	59
Poland	91	62	75	34	67
Portugal	95	69	77	38	60
UK	98	81	78	20	60
Average	91	66	71	32	60

Source: Mediappro

Attitudes and skills

Neither the Eurobarometer nor the Mediappro study included comparative data on Internet related attitudes, e.g. trust, credibility of content, functionality (gratifications), concerns and frustrations.

The same is true for Internet-related knowledge and skills, e.g. general knowledge on the Internet, knowledge of illegal content, Internet related education at school, strategies for finding things online, creating content, seeking advice, knowledge and use of filtering software, knowledge and use of institutions to contact for complaints.

This creates a problem insofar as directly comparable data are lacking on issues widely considered to be important mediators of Internet use for children and young people. Consequently, comparisons must be made by bringing to bear the various studies conducted in different countries, albeit by different research teams and using different methods.

Risks and opportunities

While the Eurobarometer survey does not report on online opportunities other than a basic indicator of use/non-use, the Mediappro survey was primarily concerned with understanding the opportunities that the teenagers might pursue online. However, it is noteworthy that Mediappro found that, in several countries, children are more concerned about viruses and being cheated online than they are about other risks.

The Eurobarometer survey, by contrast, provides more information about children's exposure to online risks, as we note below, albeit focused on a single question asked regarding exposure to risk.

National studies contain much more information regarding the varieties and contexts of risk exposure online for children, but are very uneven: there is considerable information for the UK, some recent and valuable information from Poland, but little or no information regarding risk of any kind in Portugal. However, according to the Polícia Judiciária (PJ), cyberbullying is increasing in Portugal, between adults and children, with the number of complaints rising and parents becoming more worried about this problem.

Given the relatively sparse amount of research available (see Report D1.1 for Work Package 1, available at www.eukidsonline.net), it is difficult to discuss evidence for different types of risk. However once all countries are included, in the 18 country report to follow, it is hoped that a more subtle classification of types of risk can be defined and substantiated empirically (as proposed in section 1.7).

- Based on the Eurobarometer survey, it seems that Polish parents are more likely to think that their child has encountered harmful or illegal content online than the European average, whereas parents in the UK and most strikingly in Portugal are less likely to claim this (see Table 6).

- Interestingly, while parents in the UK and Poland perceive more risks for children older than 12 years and for boys, parents in Portugal think that girls and younger children between 6 and 11 years are more at risk of encountering harmful or illegal content.

A possible explanation for this difference is that Portuguese parents are influenced by reports of actual harm, or by the greater perceived vulnerability of girls and younger children, while Polish and British parents are instead influenced by their awareness of greater risk-taking (or lower parental regulation) among boys and teens. However, this is exactly the kind of hypothesis that requires further investigation, bringing in research from more countries, before conclusions can be drawn.

Table 6: Parents who claim that the child has encountered harmful or illegal content on the Internet (%)

	PL	PT	UK	EU25
Respondents with children who use the Internet	160	92	277	3790
Total	18	9	15	18
Boys	19	3	19	18
Girls	17	14	12	18
Under 6 years	*	*	0	6
6-11 years	4	13	10	13
12-17 years	24	8	22	21

Source: Special Eurobarometer 250; * less than 10 cases.

▪ There is consensus across the three countries that children are most likely to encounter harmful or illegal content when they use the Internet at home (see Table 7), this no doubt reflecting their greater awareness of the extent of children's use at home.

▪ The fairly high proportion of parents who answer 'don't know' when asked if their child has encountered harmful content, particularly in Poland and Portugal, suggests a general lack of parental knowledge concerning online risks and, therefore, the continued need for safety awareness programmes (and, perhaps, the relative effectiveness of such programmes in the UK).

Table 7: Parents who claim that the child has encountered harmful or illegal content on the Internet at different places (%)

	PL	PT	UK	EU25
Respondents with children who use the Internet	160	92	277	3790
At home	11	8	12	13
At school	6	2	4	5
At a friend's home	4	0	1	4
Don't know	31	25	7	13

Source: Special Eurobarometer 250

Compared with local studies in Poland[8] the figures as provided by the Eurobarometer seem to substantially underestimate children's risks in contact with the Internet. While the Eurobarometer survey asked about content risks, a recent survey of 1779 Polish teenagers aged 12-17, conducted in 2006, also addressed contact risks and privacy risks. It found that:

▪ 2 in 3 Internet users make friends online and many give out personal information, and 56% had been drawn into an unwanted sexual conversation (30% were frightened);

▪ 1 in 2 went to a meeting with someone met online, and half of them went alone; 1 in 4 of these described the behaviour of the other person as 'suspicious'.

These figures are notably higher than those found in the UK Children Go Online project, which surveyed 1511 9-19 year olds in 2004, although these figures may well have changed in the past three years:

▪ 33% of 12-15 and 43% of 16-17 year olds have a friend online, 42% and 55% respectively have given out personal information, and one in three have received sexual comments online.

▪ Only 7% of 12-15 year olds and 14% of 16-17 year olds went to a meeting with someone met online, and most of them went with a friend; in most cases also, the experience was a positive one.

It may be hypothesised that in a country where Internet diffusion is more recent (Poland), safety awareness is lower and risky behaviour is thus greater. But differences in method (question phrasing, survey timing) may also account for this difference. Again, with a larger pool of countries, any systematic relation between incidence of online risk and factors such as Internet diffusion, or safety campaigns, can be examined more closely.

A hint may be obtained from the Eurobarometer question that asked whether children know what to do when they encounter a problem online.

▪ UK children and young people appear far more confident or skilled (or, their parents are more confident for them) than do Polish or Portuguese children (see Table 8). This suggests that countries newer to the Internet may well have children less able to protect themselves from its risks. (Note, in addition, that in all three countries as well as in the EU parents attribute more competence to girls and – of course – to older children.)

Table 8: Parents who claim that the child knows what to do if a situation on the Internet makes him/her feel uncomfortable (%)

	PL	PT	UK	EU25
Respondents with children who use the Internet	160	92	277	3790
Total	56	47	76	66
Boys	47	38	75	64
Girls	63	54	76	68
Under 6 years	22	*	16	28
6-11 years	40	46	81	59
12-17 years	65	47	81	73

Source: Special Eurobarometer 250; * less than 10 cases.

Parents' Internet-related behaviour

Parents' own Internet-related behaviours may be important mediating factors for the opportunities and risks that their child encounters on the Internet. Eurobarometer provides some information on the Internet use of the parents' themselves (see Table 9).[9]

Figures show that respondents with children are more likely to use the Internet than the average population:

▪ Among the total sample of the Eurobarometer survey, the percentages of those who did not use the Internet during the last month reflect the lower diffusion of the Internet in Poland (69%) and particularly in Portugal (81%) compared to the UK (44%) and the EU average (51%).

▪ As Table 9 shows these figures are significantly lower for respondents in households with children.

Table 9: Parents who did not use the Internet during the last month (%)

	PL	PT	UK	EU25
All respondents	1000	1004	1310	24738
% who did not use the Internet	69	81	44	51
Respondents with children	340	241	429	7560
% who did not use the Internet	64	72	34	40

▪ Further, in the three countries selected for this analysis, children use the Internet more than adults (see Figure 3). This finding can be interpreted in terms of the distinction between 'digital natives' and 'digital immigrants'.[10]

■ However, as the Eurobarometer data show, there are other EU countries (e.g. Germany) with a reverse trend, and in some countries there is little difference.

The underlying reasons for this difference have to be analysed in more detail, but it is likely that the distribution of Internet competence between adults and children has implications for the relative ability of parents to regulate children's online activities.

Figure 3: Adults' and children's use of the Internet (%)[11]

QC1 During the last month, did you use the Internet?
QC4 Does this child, to your knowledge, use the Internet in any of the following places?
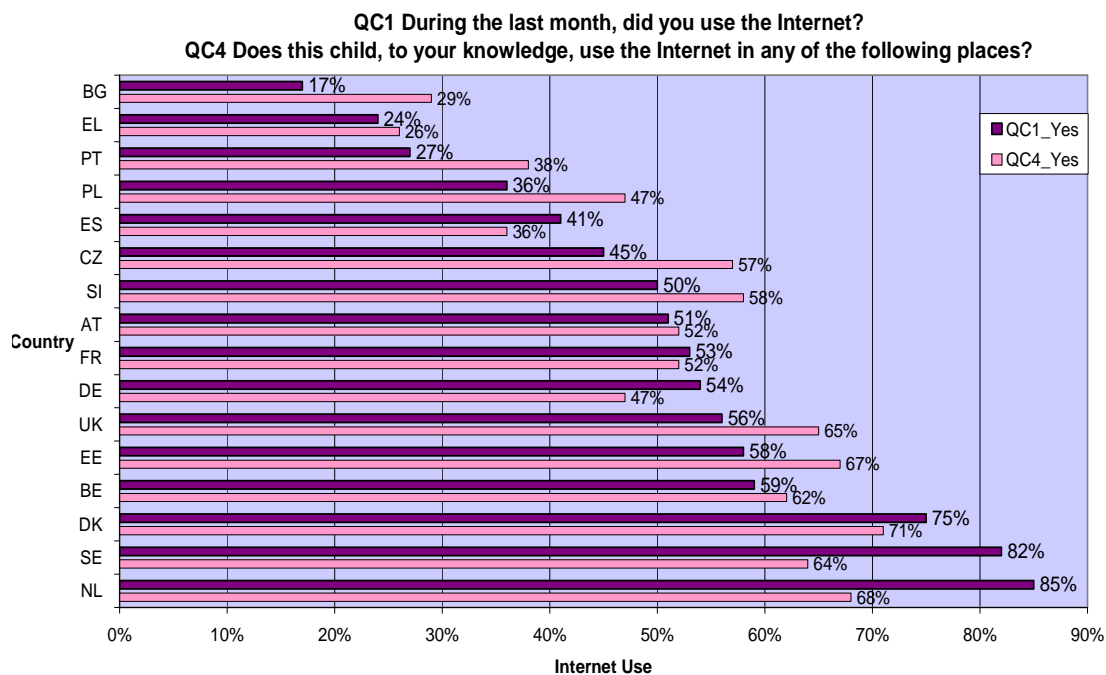
Beyond this indicator for parents' Internet experiences, it is worth looking at how many parents know about and actually use filtering or blocking systems, in order to minimise the risks, their child might encounter on the Internet.

■ As regards whether filtering or blocking tools are employed when their children use the Internet, only 8 per cent of parents claim not to know about these tools on the European level (see Table 10). This figure is lower in the UK, but substantially higher in Poland (21%).

■ Another group of parents (36% on the European level) knows about these tools, but claims that they do not use them when their child uses the Internet.

Taking these figures together it seems that in the UK filtering or blocking systems are quite familiar, again suggesting the benefits of greater/more established diffusion of the Internet:

■ Only 16 per cent of the parents say that these tools are not used at all when their child uses the Internet. The European average with regard to this criterion is more than 44 per cent, with Portugal being even higher.

■ Within the three countries, filtering/blocking systems are far more familiar in schools than at home (as reported by the parents). Again these figures are higher in the UK, as confirmed by the UKCGO survey.[12]

- Only a few parents claim that there are blocking or filtering tools when their children use the Internet at a friend's home, in somebody else's home, in Internet cafés, or in libraries or other public places (not listed in Table 10).

Table 10: Filtering/blocking tools avoiding the access to certain web sites
(%; multiple responses for the place of use)

	PL	PT	UK	EU25
Respondents with children who use the Internet	160	92	277	3790
1) Do not know what filtering/blocking tools are	21	11	4	8
2) No use of filtering/blocking tools	21	39	12	36
Sum of row 1) and 2)	43	50	16	44
Use of filtering/blocking tools at home	19	9	46	28
Use of filtering/blocking tools at school	30	21	71	31

Source: Special Eurobarometer 250

In addition to technical tools, parents may also use various forms of social regulation. Eurobarometer asked how often parents sit with their child when he/she is on the Internet (Table 11):

- Parents in the UK claim much more often that they sit with their child than parents in the other two countries, which are well below the EU average. In particular Polish parents do not seem to pay too much attention to their children's Internet use.

Interestingly, the above mentioned observation (see Table 6) that Portuguese parents perceive more risks for girls than for boys, whereas Polish and particularly UK parents regard boys as to encounter more risks, is reflected in these figures:

- In Portugal, girls' parents are more likely to sit with their child than boys' parents; the opposite is true for Poland and the UK. Again, this pattern may be interpreted along the assumption that respondents in Portugal emphasize the vulnerability of children (in doing so they perceive girls and younger children at higher risk), whereas parents in the other two countries tend to pay more attention to boys who are regarded to take more risks when using the Internet.

The observation that parents in the UK are substantially more likely to sit with their children than parents in the other two countries cannot be explained by the fact that there is a higher proportion of younger children, because this finding holds true even for the group of 12 to 17 years olds.

Even if we consider that questions like this are subject to potential social desirability effects, there seems to be a substantially stronger trend among UK parents to have an eye on what their children are doing with the Internet. (Again, these figures are confirmed by the UK Children Go Online survey, which reported that 1 in 3 parents of 9-17 year olds sits with their child when they go online, a figure also reported by the children themselves. NB the frequency of this was not measured).

Table 11: How often do parents sit with the child when he/she is on the Internet?
(Means: 1=always, 2=most of the time, 3=often, 4=from time to time, 5=rarely, 6=never)

	PL	PT	UK	EU25
Respondents with children using the Internet	160	92	277	3790
Total	5,2	5,4	4,0	4,6
Boys	5,1	5,7	4,0	4,6
Girls	5,3	5,1	4,1	4,5
Under 6 years	*	*	3,2	2,8
6-11 years	4,4	4,6	3,6	3,9
12-17 years	5,9	5,6	4,6	5,0

Source: Special Eurobarometer 250; * Less than 10 cases.

Besides using software tools to avoid harmful experiences and sitting with the child while they are using the Internet, parents can set specific rules how to use the different media. But we have to bear in mind when interpreting these statistics that investigating rules is always somewhat problematic because it is hard to assess to what extent these rules actually become effective in the children's everyday life.[13]

▪ That said, the statistics in Table 12 suggest that a substantial proportion of parents (more than 40 per cent in all three countries as well as in EU25) do not set any rules for any medium. This figure is particularly high in Portugal.

This finding seems to be relevant with regard to any media policies that expect parents to be intervening in their children's electronic lives: the figures show that it cannot be taken for granted that parents actively try to regulate their children's media related behaviours.

Table 12: "Have you set any rules for your child about using any of the following devices either in your household or elsewhere?" (multiple responses)

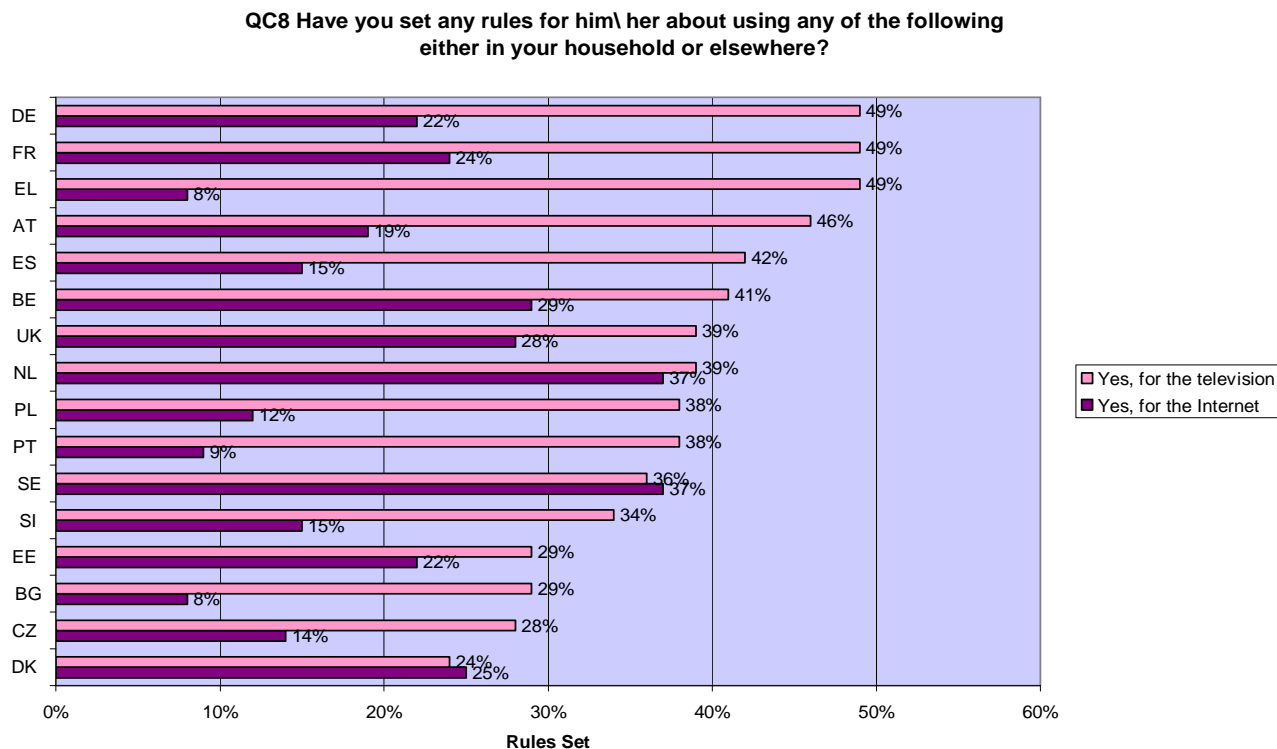|	PL	PT	UK	EU25
Respondents with children	340	241	429	7560
Yes, for television	38	36	39	41
Yes, for mobile phones	15	10	20	19
Yes, for electronic games consoles	5	8	21	17
Yes, for the Internet	12	8	28	20
Yes, for computers (apart from the Internet)	19	7	17	19
Yes, there are rules but not set by me	3	2	5	4
No rules have been set	43	50	44	42

Source: Special Eurobarometer 250

Looking at the media for which parents set rules, television still proves to be the most regulated medium:

▪ In the UK more than one quarter of respondents has set rules for the use of the Internet, too; the respective figures are far lower in Poland and Portugal, which is partly due to the fact that in these countries less children actually use the Internet. In these two countries more parents have set rules for the use of mobile phones.

▪ In Poland, there are more rules concerning the computer apart from the Internet than for the use of the Internet, which might hint to the importance of PC games.

Figure 4 compares the figures for television and Internet related rules for all 18 countries participating in EU Kids Online. The proportion of parents/carers who have set rules for their child's television use is taken as an indication of parental willingness to regulate domestic media.[14]

Figure 4: TV and Internet related rules in different countries (%)

QC8 Have you set any rules for him\ her about using any of the following either in your household or elsewhere?

- Most noticeable is the fact that the parental regulation of television in all cases exceeds that of the Internet, suggesting a willingness on parents' behalf to manage their children's media use for a familiar medium such as television.

- Cultural factors may account for the considerable variation in these proportions - from fewer than 1 in 3 setting rules for their child's television use in Bulgaria, Estonia, Denmark and Czech Republic, to nearly half in Austria, France, Greece and Germany. The nature of these factors determining more protectionist or more liberal attitudes are yet to be explained.

If the television figures suggest parents' readiness to regulate for a familiar medium, then the comparison with the Internet figures surely reveals the gap in parental confidence or competence, this impeding their ability to regulate. It appears that the gap between television and Internet rules is smallest or even reversed in those countries with the highest diffusion of the Internet and the longest experiences with its services. Again, this suggests a hypothesis worthy of further investigation.

- This 'regulation gap' in parental approaches to these two media is particularly striking in Germany, France, Greece, Austria, Spain, Bulgaria, Slovenia, Portugal and Poland – mainly, but not all, countries for whom the Internet is relatively new technology.

- Conversely, the gap is smallest in the Belgium, UK, Estonia and, especially, Sweden, The Netherlands and Denmark – Northern European countries in which the Internet is now well-established.

Since parents seem willing to regulate media with which they are familiar (both television and the Internet), the low levels of Internet regulation by parents in some countries is likely to be a

matter of low parental awareness, competence or understanding regarding safety issues online.

The figures on setting rules for the Internet presented so far do not take to account that the countries differ in the number of children who use the Internet. Thus differences between countries regarding rules might be partly due to differences in Internet diffusion. Table 13 shows the demographic breakdown for parental rules for children's use of the Internet, the figures are based just on those parents whose children actually use the Internet. Even with this basis of analysis parents in the UK are most likely to set rules for the use if the Internet. Regarding the subgroups the figure shows the following results:

▪ While there are only very small gender differences in Poland and the UK as well as in the average of EU25 regarding rules set for boys and girls, parents in Portugal are more likely to set rules for girls than for boys.

▪ Similar differences are to be observed regarding age: In Poland (as well as in EU25) there are more rules for the oldest age group, whereas in Portugal and the UK parents of younger children set more rules.

This again reflects the differences observed above regarding the understanding of whether rules should be set for those who are most vulnerable or for those who take more risks when using the Internet. These consistent differences should be analysed and explained in more detail on the basis of the 18 countries comparison.

Table 13: Parents who have set rules for the use of the Internet

	PL	PT	UK	EU25
Respondents with children who use the Internet	160	92	277	3791
Total	25	21	42	38
Boys	24	10	40	37
Girls	26	29	44	39
Under 6 years	*	*	4	25
6-11 years	27	42	55	47
12-17 years	24	14	37	34

Source: Special Eurobarometer 250

Beyond the general fact that parents set any rules, it is important to know about the kind of rules by which parents try to regulate children's use of the Internet. The kind of rules that parents from different countries set, can be interpreted as an indicator for the specific understanding of Internet related risks in the respective country. For the analysis of which rules are set for the use of the Internet, the empirical basis is quite narrow, as the number of cases in Poland and Portugal does not allow for more differentiated analyses.

Table 14 is ordered according to the results on the European level:

▪ These indicate that the most frequent rules are not to visit certain websites and to spend a limited amount of time with the Internet. The results of the three countries roughly follow this ranking.

▪ However there are significant deviations: in the UK, besides the fact that all possible rules are broadly used in this country, parents are particularly aware of the possible risks linked to personal information and to chat-rooms.

It will need the comprehensive analysis of all countries involved to understand these differences. One possible explanation might be that parents in a country with higher Internet diffusion and longer experience are particularly aware of the specific risks of the Internet (which are related to privacy and contacts with strangers), whereas parents in countries with

shorter Internet experience tend to transfer the rules they have used for traditional media (regarding specific offers and the time spent with the medium) to the new medium.

An alternative explanation could be that cultures differ in what they regard as more or less harmful risk. This has to analysed in more detail in the 18 country analysis.

Table 14: What rules have been set for the use of the Internet?

	PL	PT	UK	EU25
Respondents with children who have set Internet related rules	40	19	115	1426
"There are some websites that he/she is not allowed to visit."	60	53	59	55
"Rules regarding how much time he/she is allowed to spend on the Internet."	40	58	50	53
"He/she is not allowed to give out any personal information."	35	16	62	45
"He/she is not allowed to do online shopping."	20	21	35	39
"He/she is not allowed to meet in person someone he/she only met on the Internet."	23	32	44	35
"He/she is not allowed to go to chat-rooms / to talk to strangers in chat-rooms."	23	21	53	32
"He/she is to tell me/us if he/she finds something that makes him/her feel uncomfortable."	8	26	44	31
"He/she is not allowed to use rude language in e-mails or chat-rooms."	13	26	40	25
"He/she is not allowed to download software."	3	11	35	23
"Ensuring that access to the Internet is shared fairly between family members."	3	11	33	19
"He/she is not allowed to download music or films."	0	0	23	19
"Other rules."	18	5	17	18
"He/she is not allowed to play games online."	0	0	19	14
"He/she is not allowed to copy documents/pictures."	3	11	14	10
"Keeping phone lines free at certain times of the day."	3	0	7	6

Source: Special Eurobarometer 250

For many countries, these data from Eurobarometer represent all the available information on rules of Internet use for children. It would be possible to identify styles of parental mediation by examining how these rules group together in practice, across countries. The difficulty of linking parental mediation to children's exposure to (various types of) online risk remains a challenge for future research, though the hope – for parents and policy makers – is that the use of such rules reduces risk.

Mediappro adds some cultural context to the observed variation in levels of parental mediation across countries (as shown by Eurobarometer). In Estonia, Mediappro reports that there is 'almost no parental control over Internet usage at home' (p.24). Similarly in Denmark,

'parents are very permissive' (p.22). It is noteworthy that these two countries have high rates of use, so it cannot be said that parental mediation follows diffusion in a country.

By contrast, French parents, it was reported, are more active mediators, for the Internet provides 'a good topic of exchange within the family'. However, French teenagers are 'rather sensible and cautious' online (and a similar picture pertains in Italy), suggesting that greater parental mediation serves to reduce both risks and opportunities. Danish children, by contrast, appear less cautious and, therefore, may gain greater benefits. The dilemma for parents (and others) in appropriately balancing guidance, restriction and freedom on online is a difficult one. Future research may yet suggest some ways forward for more targeted or specific parental mediation strategies, especially for high risk situations.

In other countries, parental awareness of online risks is comparatively low, posing a different challenge to awareness raising initiatives. For example, Greek teenagers awareness of online risk is 'limited', according to Mediappro, focused mainly on viruses rather than content, contact or conduct risks. Polish teens are 'not very aware' of online risk, being generally trusting of online information; they report little discussion with their parents regarding Internet use, since children know more than their parents (though they do note that their parents restrict use of certain websites). Portuguese teenagers report few rules or restrictions imposed by their parents, though parents who are aware of the risks do, it seems, limit children's uses.

Such research has implications for European and national policy initiatives for Internet safety. For example, do parents know what they can do if they notice illegal content on the Internet?

▪ Across Europe, more than a quarter of parents do not know where or to whom they can report their observation (see Table 15).

▪ While the UK figures are much lower, parents in Poland and Portugal are more likely not to know where to report illegal content. In general, besides the police, the parents see no options; even hotlines and Internet service providers are mentioned by a few people.

These results clearly point to the importance of appropriate and well-known channels for reporting illegal and harmful contents in all countries.

Table 15: Parents' knowledge where or to whom they can report illegal content they see on the Internet, for example child pornography (%)

	PL	**PT**	**UK**	**EU25**
Respondents with children	340	241	429	7560
Hotlines/tip lines for this purpose	1	5	4	5
The police	45	37	58	53
Internet service provider	2	3	15	8
Schools	4	3	7	4
Parent associations	0	1	2	1
NGOs	1	2	1	1
Others	3	3	2	3
Don't know	35	42	15	27

Source: Special Eurobarometer 250

Given these results, efforts to promote Internet safety will have to find ways to distribute information on possible risks, on options to limit the risks for children and to report any illegal content on the Internet. One important condition for successful information campaigns is that parents are, at least to some extent, interested in receiving the respective information.

▪ Table 16 shows that parents do feel that they need more information about how to protect the child from illegal or harmful content on the Internet, especially in Portugal. This is consistent with Portuguese parents' greater concern regarding the safety of girls and younger children, as noted above.

- There is an overall trend on the European level that parents of girls and of younger children are more likely to ask for more information, although there are some divergent findings for the three countries in this respect.

Table 16: Parents who feel that they need more information about how to protect the child from illegal or harmful content and contact on the Internet (%)

	PL	PT	UK	EU25
Respondents with children who use the Internet	160	92	277	3790
Total	45	67	39	45
Boys	44	75	32	43
Girls	46	62	46	46
Under 6 years	67	*	50	50
6-11 years	40	79	32	48
12-17 years	45	64	44	42

Source: Special Eurobarometer 250; *) less than 10 cases.

- On the European level as well as in all three countries involved in this analysis most parents would like to receive information about using the Internet in a safer way from schools (see Table 17); particularly Portuguese parents seem to trust schools.

- Further, parents in Portugal are least likely to ask for information from telephone companies, UK parents do not seem to expect valuable information from the media (-suggesting high levels of distrust in the mass media), while Polish parents are more sceptical regarding information from the government or the local authorities.

These differences are highly relevant to get an understanding of how parents in different countries construct Internet risks as a problem for which different agencies – industry, state, etc – are considered responsible.

Table 17: From whom would parents like to receive information about using the Internet in a safer way? (%)

	PL	PT	UK	EU25
Respondents with children who use the Internet	160	92	277	3790
Schools	34	49	39	36
Telephone companies	24	17	33	31
TV, radio and newspapers	28	34	8	21
Government/local authorities	2	15	24	19
The police	6	8	17	13
Parent organisations	4	11	8	8
Software companies	4	5	8	7
Computer retailer	5	2	7	7
NGOs	1	2	2	5
Computer game retailer	3	2	3	3
Churches or religious authorities	3	0	0	1
Do not know from whom they want information	21	11	11	9
Do not want more information	9	4	13	10

Source: Special Eurobarometer 250.

Regarding the question how parents would like to receive more information about using the Internet in a safer way, significant differences between the countries can be observed (see Table 18).

- On the European level, and particularly in the UK, the most preferred option is to receive the information by letter. UK parents seem to be generally sceptical about any kind of mass communication, they are least likely to expect information from television, radio or newspapers.

- On the other hand, for Polish parents television is by far the most important medium. In Portugal television is highly trusted, too. Compared to the other countries Portuguese parents most often expect information from newspapers.

Again, these results hint at important differences between countries with regard to how awareness campaigns should be designed.

Table 18: How would parents like to receive the information about using the Internet in a safer way?

	PL	PT	UK	EU25
Respondents who would like to receive information	113	78	209	3047
Letter	19	44	72	47
Television	44	41	13	29
E-Mail	16	12	28	27
Newspapers	13	23	8	20
Website	12	12	12	14
Radio	12	13	5	10
Meeting with an expert	12	6	6	10
Telephone	3	4	4	5
Computer magazine	4	6	1	4
CD-Rom	1	1	5	3
SMS	6	4	3	3
In a library	1	5	5	3

Source: Special Eurobarometer 250.

2.3 Conclusions

This section examined the readily-available comparative results on Internet use and Internet safety, in order to prepare for the more complex comparison of 18 countries. What, then, have we learned from the Eurobarometer and Mediappro projects regarding pan-European similarities and differences, when examining findings for the three countries, complemented on occasion by national studies? And what implications does this have for the planned 18 country comparison? Notwithstanding some limitations in the available evidence base, we draw the following conclusions, to guide our further analysis:

Similarities

The foregoing has identified a series of similarities in the three countries studied that, it may be hypothesised, could be common across Europe. Explanation for such findings would, therefore, lie at the individual level (e.g. concerning child development or family dynamics):

- While the level of Internet access and use vary cross-nationally, age (older) is positively associated with greater use. This suggests the relevance of (universalistic) theories of child development and socialisation in explaining observed age differences, albeit possibly nuanced to account for cultural variations in age trends regarding online activities.

- For Internet access and use (but possibly not risk), the three countries do not reveal gender differences. This suggests a social change from the early days of computer

diffusion. But national studies may point to the need to examine claims of gender equality more critically, in order to identify more subtle differences, perhaps inequalities, in the online experience of opportunities and risks.[15]

Differences

One striking difference concerns the general level of Internet experience. Portugal and Poland frequently present a similar picture which is different from the results for the UK, showing two distinct levels of parental awareness on children's Internet use.

- In terms of access, use and management of rules by parents, parents in the UK take the highest position among the three countries, namely in the knowledge of the children's Internet use and in their related parental behaviour.

- On the other side of the spectrum, Portuguese parents know least about harmful or illegal experiences encountered by the child and they are least likely to believe that their children know what to do in an uncomfortable situation on the Internet.

- Regarding their Internet related behaviour, parents in Portugal are least likely to know about or to use filtering/blocking tools and to set rules for any of the media, in particular for computer and Internet.[16]

- There is a particular need for information in Portugal as well in Poland on where or to whom to report illegal content and on how to protect children at home.

Beyond these differences regarding the general level of Internet experience and of awareness of potential risks, several results hint at different constructions of Internet-related risks in the three countries:

- There are also indications that Portuguese parents perceive Internet-related risks from a perspective that emphasizes the supposed vulnerability of the children, for they are more concerned that girls and younger children are at risk than boys and older children.

- For parents in Poland and the UK the opposite is true, for from their perspective, it is boys and older children who are more at risk (presumably because they are seen to take more risks) when using the Internet.

Differences in familiarity with the Internet, and differences in perception of risk appear to have implications for practices regarding parental mediation.

- In the UK, where the Internet has been widely available for longer, parents are more likely to practice, and to know how to practice, both technical and social forms of regulation of their child's Internet use.

- In Portugal, where parents claim more concern regarding girls and younger children, more parental mediation (sitting with the child) is practiced for these children.

- Despite some high risk figures for Poland, however, familiarity with the Internet and safety awareness both appear relatively low, this suggesting the challenge ahead for Polish safety awareness initiatives.

Additionally, there seem to be different expectations regarding which institutions are responsible for promoting Internet safety. This means that Internet related risks can be defined as an issue of the industry, of the state, or of civil society organisations, or the educational system.

The results might be explained by differences between countries in public trust in these institutions. It may also reflect differences in the relative importance of home and school as a location for online use, risk and safety awareness. This should be analysed in more detail across all 18 countries.

Implications for the 18 country study

▪ Even a comparison of three countries in Europe suggests a range of intriguing and important hypotheses regarding the differences in children's online experiences and exposure to risk. Some of these concern similarities across Europe (see section 3 of the present report) while others concern differences (see section 4).

▪ The advantages of comparing many rather than few studies has been apparent on several occasions. All three countries examined here, for example, are those in which children are more likely to use the Internet than are adults; but in some other European countries, adults use the Internet more than children, challenging the 'digital natives' hypothesis regarding children and raising new questions about cross-national differences in parental skill in implementing Internet-related rules and regulations.

▪ More generally, a significant range of countries are required in order to ground and test explanations of difference (and, in fact, sound claims for pan-European similarities). Hence this section has noted some possible explanations for observed differences, these concerning the diffusion path followed by online technologies in each country (speed, recency, reach, etc), the cultural norms and values in each country, and other factors that may explain specific findings. But clearly, testing these explanations requires a larger set of countries. How such explanations could be sustained, drawing also on national studies and pan-European contextual data, will be discussed in the following sections and pursued in the 18 country report.

▪ However, an important observation is that these data sources do not include satisfying indicators of the actual risks that children and young people encounter on the Internet. While this is the most notable, and problematic, limitation on the available data, there are further gaps in the evidence base that are of concern (see Report D1.1 for Work Package 1). Thus it will be necessary to rely on specific studies on the national level. This will, in turn, raise problematic issues of comparability of methods, measures and findings. On the other hand, the differences noted even between Eurobarometer and Mediappro findings can be used constructively as a spur to deeper analysis of the reasons for observed differences, resulting in a more robust account.

▪ Relying on the Eurobarometer survey and the Mediappro project poses some limitations. There may be further pan-European data sets that can contribute to the present task. One is the survey conducted by Insafe as part of Safer Internet Day (2007): we are currently awaiting a report on that survey analysis. Another possibility is the qualitative research recently conducted by Eurobarometer for the Safer Internet plus Programme: this set of four focus groups conducted in each of 29 countries offers some qualitative insights into children's accounts of online use, risks and safety which could complement the quantitative analysis offered in the present report.

3. Hypothesised European similarities

In this section, the available evidence will be examined in order to test general hypotheses regarding the relations among variables included in Figure 1 (shown as arrows in the figure presented above). Our strategy is to draw first on cross-national comparative data, since this is directly comparable, supplementing this with national data for each country where it can usefully advance our analysis.

The purpose, as explained in section 1, is to reduce the complexity inherent in a multi-dimensional comparison of multiple countries by first identifying similarities where these exist, for the three countries. These are expressed as hypotheses concerning pan-European similarities (and numbered H1 to Hn), to be tested in the 18 country comparison to be conducted during 2007-8. Where an issue seems important, but it is hard to formulate a hypothesis, we simply note the research question. In section 4, we consider hypotheses and questions regarding cross-national differences in our research field.

3.1 Child-related variables

First, there is the question of whether variables known to be important in other aspects of life have a bearing upon the experience of risk: namely age, gender and socio-economic status. Our working assumption is that these influences are similar in each country, and so may be examined across any or all countries (though exceptions are noted).

Age

- *H1: as children get older, their access and use of the Internet and online technologies rises, resulting in greater online skills (or internet literacy) and greater online opportunities (i.e. a broader and deeper engagement with the online environment).* This hypothesis is supported for the three countries examined, for access and use; comparative evidence is sparse for skills and opportunities.

- *H2: as children get older, they are exposed to an increasing amount and range of online risks.* On the basis of the Eurobarometer data overall (i.e. parents' claims whether their children have encountered harmful content), this hypothesis is supported. At the national level, this holds true for the UK and Poland but not for Portugal. In Portugal, there is no separate available data that could be used to check this result, but in the UK the study 'UK Children Go Online' confirmed the Eurobarometer results.[17] Nonetheless, it seems likely that age of children, i.e. being older, is an important general factor shaping risk in European countries, but we will have to check further data sources within the 18 country study.

- *H3: as children grow into teenagers, they are subject to reduced parental mediation in their use of the Internet.* This hypothesis is supported by existing data, and raises a new question regarding the consequences of reduced parental mediation at the same time as increased risk among teenagers (H2).

- *H4: as younger children gain online access, they become exposed also to online risk.* Addressing this hypothesis requires detailed analysis, and it also raises the question of children's response to, or coping in relation to, online risk.

Gender

- *H5: there is no gender difference in children's access or amount of use of online technologies, across countries.* This hypothesis is broadly supported by the available data, but remains to be tested across the 18 countries.

- *H6: there are gender differences in the types of use/opportunities, in levels of skill (higher for boys) and types of risk, across countries.* This hypothesis is broadly supported by the available data regarding opportunities (although the SAFT survey suggests some modest gender differences in use), though data regarding skills have not been identified for all three countries as yet. For risk exposure, the picture emerging is more complex.

- From the Eurobarometer data (i.e. parents' claims whether their children have encountered harmful content), the hypothesis that boys encounter more risks than girls is not supported on the European level (see table 6). Moreover, while the results for the UK clearly go in this direction and the results for Poland tend to support the hypothesis, in Portugal the opposite is found (according to their parents, girls encounter more risks than boys; see section 2).

- When we compare these findings to other data sources, the UK Children Go Online study also found more risk for boys, mainly in terms of boys viewing more online pornography.[18] Data from Portugal emphasize that boys are more likely to have a PC in their bedroom, and that they use the PC and the Internet more often and start earlier using them.[19] On the one hand this may lead us to anticipate that parents might be more worried about boys because of the amount of access and use. On the other hand the fact that girls are less experienced, as well as fears of vulnerability noted earlier, may lead Portuguese parents to particularly worry about girls' ability to avoid risk. The picture is made more complicated by the fact that the same online survey also concluded that girls are more adventurous when they use the Internet – at least regarding certain kinds of risks: for example they claim to use different identities in social networks and to have several e-mail accounts.

- There may, in addition, be an interaction between age and gender: a Portuguese survey for the World Health Organization (WHO) concluded that the older boys are the most intensive users of the Internet, as was also found in the Portuguese Mediappro results.

- The findings of a Polish study dealing with what children said themselves (as opposed to relying on parents) support the hypothesis that boys are more at risk than girls: 77% of boys, as opposed to 54% of girls, reported that they had encountered pornographic contents on the Internet (Kirwil, 2002). However, the picture from this study is also more complex. More girls than boys encounter erotic content in communication by e-mails (Figure 5a) and in various chatrooms (Figure 5b). In contrast, boys encounter this content when they look for it intentionally. This difference between genders is reflected in children's perceptions of what contents in the Internet are forbidden by parents, with more boys reporting pornography/erotic as being forbidden and more girls than boys reporting that chatrooms are forbidden (Figure 5c).

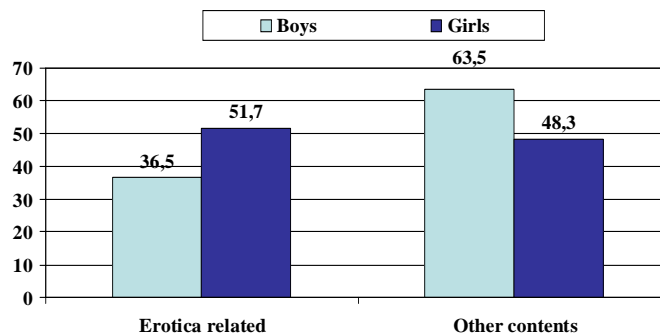**Figure 5a: Shocking contents in e-mail received by boys and girls (Kirwil, 2002)**

Figure 5b: Occassions for encountering pornographic content while surfing the Internet for boys and girls (Kirwil 2002)
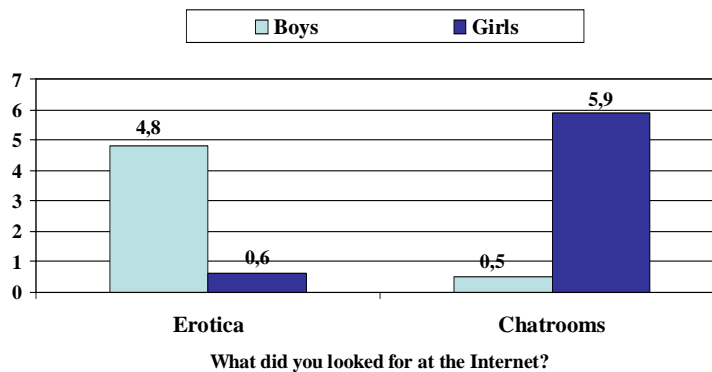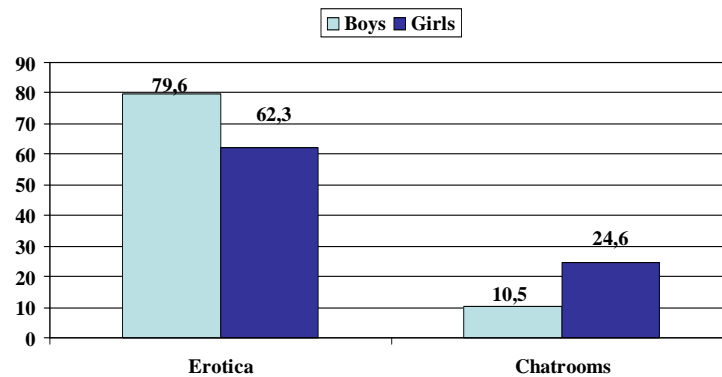
Figure 5c: Contents in the Internet forbidden by parents of the Polish children (Kirwil, 2002)


- Turning to another study, the Mediappro study based on children's own reports suggests that children themselves are responsible for being exposed to pornographic contents surfing in the Internet because they intentionally look for it. The Mediappro research does not, however, itself support the hypothesis that there are gender difference as regards exposure to pornographic content, and nor does it report cross-national differences.

- In sum, gender may make a difference to risk, but in complex ways. On the basis of parents' perceptions, there is some general support for the claim that boys take more risks, but there is countervailing evidence from Portugal which needs to be explained. Certainly there are further lines of enquiry to follow up to clarify what is happening behind these figures. Then we have the reports of the children themselves, which may support the hypothesis, but they certainly point to the need to deconstruct risk a little more to explore how boys and girls encounter risks in different ways.

Socioeconomic status

- For adults in the Eurobarometer survey, access and use is heavily stratified by income, education, and other factors, as shown in Figure 6 below. This confirms that socio-demographic variables strongly shape how people use the Internet. The extent to which these differences are also reflected in the Internet related opportunities and risks of children from different social backgrounds can be interpreted as an indicator for the reproduction of inequality.

- *H7: In all countries, there are inequalities in access, use and skills as a consequence of inequalities in socioeconomic status (household income, parental education, social class).* The debate over the digital divide, now expanded to inquire into the relation between digital and social exclusion, along with other forms of inequality, has focused greatly on questions of access and use. This hypothesis tends to be supported by some Eurobarometer findings. However, a more thorough analysis has to be conducted on the basis of national studies from the 18 countries.

Figure 6: Adults' use of Internet in EU by respondents' socio-demographic characteristics
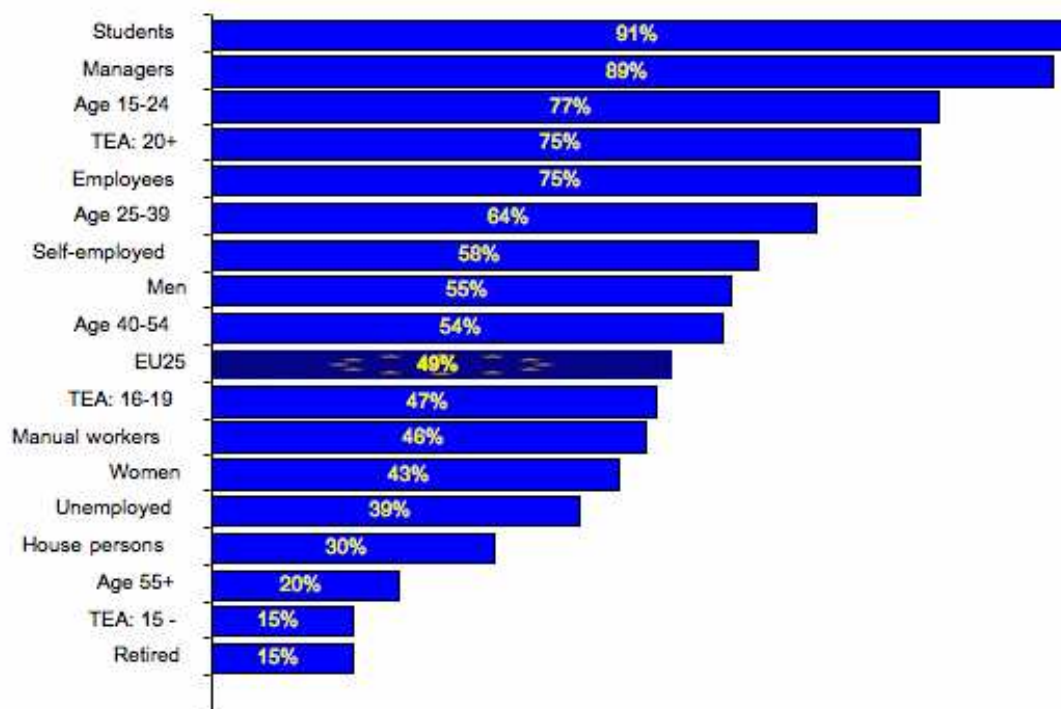
- According to the Eurobarometer data for EU25, the above mentioned differences between social groups regarding adults' use of the Internet, are reflected to certain extent by the figures for the respective children. As for formal education, respondents who are still studying were by far most likely to claim that their child uses the Internet (74%). The three groups which have been built on the basis of the age when formal education was terminated, support the hypothesis that children with better educated parents are more likely to use the Internet (TEA 20+: 54%, TEA 16-19: 50%, TEA 15-: 46). The respective figures for different types of occupation support this general trend, that children's Internet use is influenced by the socioeconomic status of their family: students (74%), managers (58%), other white collars (57%), self-employed (56%), manual workers (48%), unemployed (41%), house person (40%). Regarding the place where children grow up, there is just a slight trend, that children in large cities are more likely (54%) to use the Internet than children in small towns (50%) or villages (50%). This trend that children in large towns are more likely to use the Internet is particularly strong in Poland: 64% compared to 51% in small towns and 42% in rural areas.

- According to country specific data for the UK, there are clear differences by class for most variables in Figure 1. The UK has one of the greatest differences[20] in income between the top 20% and bottom 20% across Europe, so perhaps these differences are larger than in other countries. These differences are significant even though those children without home access have been filtered out (i.e. it is not that the working class children lack access, though they may lack such high quality access e.g. broadband).

- In Portugal it is possible to identify asymmetries in the Internet access by region. In 2006, Lisbon leads with 53% of rate penetration and 24% in broadband penetration, while Alentejo, a poorer region in the South with an aging population, reported figures of 35%

and 16% respectively.[21] Clearly this is an area were we need more comparative data from the 18 country study. The distinction between large cities, small towns and rural areas, as used in the Eurobarometer, does not support the hypothesis that there is a linear trend such that children in rural areas are less likely to use the Internet.

▪ *Research question 1: are there SES differences in parental mediation or children's exposure to risk*? This is difficult to predict, but given the importance of targeting safety guidance appropriately to children and parents, this question should be addressed across the 18 countries.

▪ As for the respondents' claims whether their child has encountered harmful or illegal content on the Internet, better educated parents in EU25 seem to perceive more risks (students: 39%, TEA 20+: 34%, TEA 16-19: 28%, TEA 15-: 29; based on Eurobarometer). This finding cannot be explained by referring to a higher Internet expertise of the respective parents, because there is no significant relationship between the respondents' self-assessment of their Internet expertise and the perceived risks of their children. Further indicators show that better educated parents are more likely to sit with their children when they use the Internet and to set rules for the use of Internet.

3.2 Internet-related variables

Next, we have questions about (other) variables shaping access, usage of the Internet, attitudes and skills, risks and opportunities as well as the role of parental mediation on risk.

Access

▪ *H8: since most children make the broadest and more flexible use of the Internet at home, they will also encounter more risk from home than school use.* This hypothesis is important when advising parents and teachers, but the evidence to link risk to location of use is largely lacking in the three countries examined.

Usage

▪ *H9: children and young people make similar uses of the internet across Europe.* This is supported by the Mediappro survey, including our three countries being compared, and is likely to apply across all countries. Such similarities would simplify the task of raising awareness regarding risks associated with certain activities, across Europe.

Attitudes and skills

▪ *H10: those who use the internet longer, and for more activities, develop more internet-related skills and literacies.* Although the variables measuring skills/self-efficacy have not been measured in a very subtle way, the findings from the UK are suggestive, especially with regard to recommendations about Internet training and safety awareness as one outcome of the EU Kids Online project. So, the findings here are, first, that the two measures (skills and self-efficacy) correlate very highly. Also, that providing more access locations is associated with more skill/efficacy (even controlling for SES). Furthermore, increasing frequency of going online and increasing time per day online is associated with greater skill/efficacy. In short, children learn by doing, which is simple but useful advice. More skills/efficacy is associated with doing more online; this could be bidirectional, and education programmes could seek to encourage either to improve the other.

▪ *RQ2: what is the relation between online skills and risks*? It would seem plausible to hypothesise that those who are more skilled online are more able to avoid the risks and/or cope with the risks. If supported, this would justify Internet literacy education in schools and elsewhere. However, indications from UK Children Go Online contradict this hypothesis, finding instead that as young people become increasingly skilled Internet users, their experiences of risks and opportunities typically both increase (not least because opportunities and risks are themselves positive correlated). Hence instead of

proposing a hypothesis, we urge a better understanding of the relation between skills and risks, insofar as data derived from measures of both variables permits a careful investigation in any or all of the 18 countries.

Risks and opportunities

▪ *RQ3: what are the main risks experienced by children online across Europe?* This question will allow us to examine the typology presented in section 1, to determine its heuristic value and comprehensiveness in accounting for, and organising the evidence in each country. A related question can examine the main opportunities experienced by children online across Europe, developing the more tentative typology also presented in section 1.

▪ *RQ4: what is the relation between online opportunities and risks?* It is possible to imagine that new, cautious Internet users, who make little use of the internet, experience unexpected and unwelcome risks. It is also possible to imagine that more creative and confident users benefit from more opportunities and also experience more risks. It is also possible to argue that the line between opportunities and risks is impossible to draw, since what adults construe as risks, children often see as opportunities. Relations among different conceptions, or measures, must therefore be examined with some care. The outcome may be a typology of users (as has been developed by UK Children Go Online) or a general correlation between (some) risks and (some) opportunities, or a recognition that evaluations of use (positive or negative) are always context dependent.

▪ In the UK, research suggests that, perhaps partly because young people often construe as an opportunity the very activities that adults perceive as a risk, there is a positive correlation between the range of opportunities that teenagers experience online (e.g. learning, games, communication, creation) and the range of risks that they encounter (e.g. bullying, hate content, sexual harassment). This suggests that increasing young people's take up of online opportunities tends to increase their online risk of harm. Conversely, seeking to reduce the risks tends also to reduce their online opportunities, either by generally limiting Internet use or by specifically restricting interactive or peer-to-peer activities online.

▪ Online risk might thus be compared with riding a bicycle: teach a child the skill of riding a bicycle, and they will encounter both the positive and negative experiences of public places. The same may be argued of learning to read, and other skills or literacies. It is also striking that, for example, these simple positive correlations contradict two popular assumptions – (1) improved skill means improved ability to avoid risks, and (2) improved good things to do online distracts the child from encountering the negatives. Rather, all these are positively correlated, which is thought provoking for those seeking to encourage opportunities and reduce risks.

▪ Little research in Poland or Portugal offers an account of online risk that links it to the variables of use, skills or opportunities. But such data may exist in other countries, and these possibilities can be explored further in the 18 country study. However, this may reveal very different levels of risk, and contexts of risk, across countries, and therefore the outcome of further investigation may not be a claim regarding pan-European similarity but rather a call for a better understanding of cross-national differences.

Parents' Internet-related behaviour

▪ While the set of possible strategies for parental mediation (social, technological, educational, etc.) are common across countries, the considerable differences in their implementation as shown by the Eurobarometer survey suggests that, as with the experience of online risk, parental mediation may be an area of cross-national difference rather than similarity in Europe.

▪ We have already, above, proposed a relation between age and parental mediation. We can here add an important question, relating parental mediation and risk.

- *H11: more parental mediation results in reduced exposure to risk online by children.* This hypothesis, if supported, would justify increased efforts to advise parents to manage their children's internet use. However, there is little in the existing evidence to support such a hypothesis as yet, and therefore we propose it with some caution.

- The UK Kids Online study found no clear relation between parental practices in regulating children's Internet use (via co-use, monitoring, restriction, etc) and the risks that teenagers' encounter. The only exception, obvious from the foregoing, is that if you reduce their access (e.g. banning peer-to-peer interaction) and so reduce their opportunities, you also reduce their risks. But, how can parents increase opportunities and reduce risks?

- Turning to the Polish Eurobarometer sample, the hypothesis that more parental guidance leads to fewer risks is also not confirmed (and similar results are obtained as in the UK).[22] In addition, other forms of parental mediation, i.e. the use of filtering/blocking tools, avoiding the access to certain websites and sitting next to the child when he/she uses the Internet, are not related to the perceived risk.[23] One consequence of this finding is the suggestion that we might reformulate the hypothesis: instead of the assumption that parents' regulation of their children's Internet use will lead to fewer risks, it should be assumed that a more risk-oriented Internet use by children leads to more efforts on the side of the parents to moderate these risks. Hence we can also consider *H11b: more online risk experienced by children is associated with more parental mediation.*

- The hypothesis that more parental skills/literacy lead to fewer risks, is also not supported by the Polish and Portuguese Eurobarometer data. Higher parental skills regarding the use of the Internet are not systematically related to parents' perceptions that their children are less at risk.[24] However, the re-analysis of the Eurobarometer survey can be conducted also for all other European countries.

- Finally, we are left with one further, crucial question. *RQ5: is there evidence, in any of the 18 countries, that particular parental strategies or styles of mediation effectively reduce the risk their children experience online?* This question invites an analysis of available research covering a wide range of possible issues (insofar as such research exists) – parental media literacy, parental online experience, use of filtering or monitoring software, effectiveness of time or space management of online technologies in the home, parental discussion regarding certain risks or consequences, and so forth.

3.3 Summary of hypotheses and questions

The foregoing hypotheses and questions, mainly focused on pan-European similarities, and largely drawn from evidence at a pan-European level (Eurobarometer, Mediapppro) or national level (in Portugal, Poland and the UK), are summarised as follows.

- H1: as children get older, their access and use of the Internet and online technologies rises, resulting in greater online skills (or internet literacy) and greater online opportunities (i.e. a broader and deeper engagement with the online environment).

- H2: as children get older, they are exposed to an increasing amount and range of online risks.

- H3: as children grow into teenagers, they are subject to reduced parental mediation in their use of the Internet.

- H4: as younger children gain online access, they become exposed also to online risk.

- H5: there is no gender difference in children's access or amount of use of online technologies, across countries.

- H6: there are gender differences in the types of use/opportunities, in levels of skill (higher for boys) and types of risk, across countries.

- H7: In all countries, there are inequalities in access, use and skills as a consequence of inequalities in socioeconomic status (household income, parental education, social class).

- Research question 1: are there SES differences in parental mediation or children's exposure to risk?

- H8: since most children make the broadest and more flexible use of the Internet at home, they will also encounter more risk from home than school use.

- H9: children and young people make similar uses of the internet across Europe.

- H10: those who use the internet longer, and for more activities, develop more internet-related skills and literacies.

- RQ2: what is the relation between online skills and risks?

- RQ3a: what are the main risks experienced by children online across Europe? AND RQ3b: what are the main opportunities experienced by children online across Europe?

- RQ4: what is the relation between online opportunities and risks?

- H11a: more parental mediation results in reduced exposure to risk online by children. OR H11b: more online risk experienced by children is associated with more parental mediation.

- RQ5: is there evidence, in any of the 18 countries, that particular parental strategies or styles of mediation effectively reduce the risk their children experience online?

As we approach the 18 country study that constitutes the main task of EU Kids Online's Work Package 3, these hypotheses can be first discussed among all countries (for importance, interest, alternatives and additions), then examined in relation to the data available in each country. They may be tested using univariate or multivariate statistics, including various forms of modelling, since independent, mediating and dependent variables are proposed (see Figure 1 for the network of possible relationships).

Once agreed, the above list of hypotheses and questions, concerning the central (shaded) portion of Figure 1, will be included as part of the template for national reporting in Work Package 3 during 2007-8. In effect, this will complete the individual level of comparative analysis, being focused on pan-European similarities (as a parsimonious strategy to make comparisons across many countries and many variables), while open to the discovery of cross-national differences).

Each national team will be asked to examine data from their country in order to provide one of three answers to each hypothesis or question: (a) evidence to support, (b) evidence to contradict, or (c) no pertinent evidence available. Additionally, contributors to Work Package 3 will conduct further analysis of available pan-European data, where available, to address the above where practicable.

4. Determining Factors

4.1 Approach to the task

This section sets out to define and collect relevant background variables which help to explain similarities and differences between countries regarding children's use of the Internet and the general level of risks and opportunities related to the Internet. It focuses on the country level of analysis in Figure 1, first identifying the main cross-national differences (rather than similarities at a country level, as in section 3). It then examines a range of factors that may help to explain these differences. It may be possible to collect the evidence required to conduct qualitative comparative analysis[25] across 18 countries, to complete work package 3.

In the following we will discuss several kinds of observations and existing data regarding their appropriateness for such comparative analysis. Indicators should a) be relevant for children's and young people's Internet use and the risks and opportunities they might encounter; b) they should be able to partly explain differences and similarities between the countries regarding Internet use and Internet related risk; c) it should be possible to express them in quantitative terms or as dichotomized qualitative variables.

In section 1 (Figure 1) we identified five possible factors that may support a cross-national explanation of differences in patterns of access, use, skill, parental mediation, and online risk and opportunity. They concern the media environment, ICT regulation, public discourses, attitudes and values, and the educational system.

Collecting research on each of these factors is time-consuming. Moreover, where in section 3, we sought all available research regarding children's use, risk, etc, it is impractical and unnecessary to collect all research on these five factors. Rather, the task here is to collect sufficient information for the task, without incurring a disproportionate amount of effort on the part of the EU Kids Online network.

In this section, we scope the task involved in collecting comparative information on some but not all of these factors, identifying useful indicators, making comparisons across our three pilot countries where possible, and exploring the viability of this task when rolled out across 18 countries.

In order to begin this task, we first produced a pilot template for national reports, and undertook to complete each category within the template for the three countries. These are included in Annex C. The outcome of this exercise, and hence the conclusion of this section, is to propose a revised template for national reports, to be completed by all 18 countries during 2007-8.

4.2 Media Environment

Diffusion of ICT infrastructure

Section 2 provided evidence that one important reason for the differences observed between the UK on the one hand and Poland and Portugal on the other hand might be the higher level of Internet diffusion in the UK and thus the longer experiences with the Internet in this country. Therefore we will analyse the diffusion of ICT infrastructure as an important factor of the comparative analysis. Bearing in mind that the project sets out to provide comparative analyses for almost all European countries, at least the 18 countries involved in the EU Kids Online project, the analysis to be done here should be based on official international statistics which cover all countries and also allow for a comparison with non-European countries.

As a start we will consider the percentage of the population which uses the Internet as it is provided by the statistics of the ITU (see Table 20). Although it is obvious that the assessment of this indicator is quite difficult[26], for comparative purposes these international statistics, which are continuously negotiated by the respective professional organisations are more reliable than individually collected national data. For the case of the 3-country-comparison the figures show that the UK was already quite far ahead of the other countries since the early years of the Internet. What is more surprising is that the gap between the UK and the other two countries has been even growing during the last years.

Table 20: Percentage of the population who use the Internet

	PL	PT	UK
1999	5.4	15.0	21.0
2000	7.3	16.8	26.4
2001	9.8	18.0	33.0
2002	23.0	21.8	42.3
2003	23.2	25.5	43.7
2004	23.4	28.0	47.0
2005	26.0	28.0	47.8

Source: ITU World Information Society Report.

Similar statistics will be collected regarding the technical equipment of households in general and in households with children in particular – given that the Polish data shows these households have more access and the same is true for the UK. These include the availability of computers in households, children's own computers and mobile phones. Since some of the potential risks and opportunities related to children's use of the Internet are linked to specific services which require broadband connection to the Internet, international statistics on the distribution of broadband connections will be included in the comparative analysis. The figures for the 3 countries are shown below, showing that the UK not only has more access, but more broadband access.

Table 21: Access to new technologies in the three countries and the EU average (2006)

Country	Computer	Internet Access	Broadband Internet Access
Poland	45	36	22
Portugal	45	35	24
UK	71	63	44
Average for 25 EU States	62	51	32

Source: Eurostat 2006

As the country reports from Poland, Portugal and the UK show (see Annex C), there are many contradictory statistics on these indicators in all countries. It will be a task for the country teams to validate existing figures in order to work on a reliable basis.

Further indicators of media environments

In addition to the concrete indicators showing how many people use the Internet and showing the technical equipment which is available to children in different countries our comparative analyses can use the Digital Opportunity Index (DOI) which has been created by the "Digital Opportunity Platform", an open multi-stakeholder WSIS partnership, with contributions from governments, intergovernmental organisations, business entities and civil society. The main index is expressed in figures between 0 and 100, with 100 indicating that the respective countries provides 100 per cent of the digital opportunities. This index is a comprehensive measure for a broad range of indicators which characterise the digital environments in the respective countries.

The index is composed of three sub-dimensions: opportunity (including prices of ICT services[27]), infrastructure, and utilization. Thus each country can be characterized by the total index and three sub-criteria. These measures shall be used for our analysis of which factors determine differences and similarities in terms of which risks children encounter in different countries and how parents deal with these risks. As for the 3 countries comparison, the DOI helps to explain the differences in many Internet related criteria which have been observed between the UK on the one hand and Poland and Portugal on the other hand. These are partly due to the differences in the diffusion of digital ICTs in the three countries.

Table 22: Digital Opportunity Index 2005/2006

	PL	PT	UK
DOI 2005/06	0.51	0.61	0.69
World Rank 2005/06	53	32	10
Sub-dimension "Opportunity"	0.98	0.98	0.99
Sub-dimension "Infrastructure"	0.42	0.49	0.70
Sub-dimension "Utilization"	0.13	0.36	0.39

Source: WSIS, ITU, KADO et al.: World Information Society Report

An important part of the media environment is the strategies of national Internet Service Providers. Their prices and particularly their efforts to raise awareness of potential risks and to offer blocking and filtering systems constitute a potentially important factor for explaining national differences in Internet related risks and opportunities. Therefore we will collect information on these strategies for all countries.

4.3 ICT regulation

Within the framework of European regulation all countries have developed a specific approach to ICT regulation. As the country reports show the European picture is still quite variable in this respect. We observe differences in the status and the competences of the regulator(s), in the extent to which ICT and media regulation have been integrated, and in the general density of ICT regulation. For the three countries analysed so far, there seems to be evidence that the greater number of initiatives to raise awareness of Internet-related risks and to provide hotlines for complaints, which has been implemented in the UK, lead to the higher degree of risk awareness and risk related knowledge shown by British parents.

For the 18 countries comparison it will not be possible to conduct a thorough analysis of the full complexity of regulatory systems. Therefore we will follow two parallel strategies. On the one hand, we will focus on some crucial indicators which are most likely to affect the risk related behaviours of children. Besides a general classification of the overall density of ICT regulation these indicators include whether the governments and/or regulators have implemented programmes to promote the use of ICTs and/or to raise awareness of potential social impacts and risks. On the other hand, each country team will write a short portrait of the respective regulatory system, focusing on those aspects which they believe to be most important for the understanding of Internet related risks and opportunities in their country. This procedure will help to identify relevant factors which might explain specific patterns of risk related behaviours.

4.4 Public Discourse

In Figure 1 (see section 1.7), public discourse on the Internet in general and children's Internet usage in particular is regarded as one important factor which might explain national differences in perceived risks and parental guidance. As for any new communication service, the Internet and online services in general are being socially constructed; media coverage as well as public campaigns contribute to the framing of this construction process.

Within the three countries study, pilot studies have been conducted to assess the amount of coverage on Internet and child related issues. The reports show that the conditions for this kind of analysis are quite different between countries; the availability of press articles in (affordable) electronic data bases cannot be taken for granted for all countries; the samples which can be collected from data bases cannot be regarded as representative for the press coverage in the respective country. In order to get comparable results on relevant media coverage in the 18 countries involved, WP2 of the EU Kids Online network will organise a parallel analysis of the coverage on children and online media in autumn 2007. The results regarding the frequency and relative weight of opportunities and risks, as well as of certain kinds of risks (according to Figure 2), will be implemented in the comparative analysis of the 18 countries analysis.

Non-governmental organisations and public departments try to influence the public discourse in organising dedicated campaigns regarding Internet safety. Some of them are coordinated within the networks of the Safer Internet plus programme, some are organised on the national level. The country reports show that the overall message of these campaigns might vary substantially according to the specific risks which are emphasized, to the recommendations how these risks might be reduced, to the target groups, and to the general tone of the message, e.g. rather negative or rather constructive.

As it is assumed that public discourse is strongly influenced by significant events which get extensive media coverage and thus function as "key events" which then frame the online media related perceptions of the media as well as the population. So far the three country studies indicate that there are differences between the respective key events. In Poland there has been a strong focus on cases against paedophiles over the last years. In Portugal the huge attention to the recent kidnapping case in the Algarve region also caused high awareness of children putting their photos on the Internet.

4.5 Attitudes and values

According to Figure 2 it is assumed that national differences in attitudes and values will influence the respective Internet related behaviours. For this part of the comparative analysis we mainly rely on existing international surveys as the European and World Values Survey.

Risk perceptions

As perceived risks might be one reason for national differences in Internet related behaviours, the 18 countries analysis shall include existing data on what is perceived as risk in the different countries. Data from the three countries involved so far show the close relation between risk perceptions and social change and the respective societal challenges.

General values

In general, there are some striking differences between attitudes in the UK, Poland and Portugal as shown in the European and World Values Survey and so there is scope for returning to this data source as we develop the analysis. In relation to parents' concerns over their children's use of the Internet, the most surprising finding was that British parents were in general most likely to trust strangers. When asked whether 'most people can be trusted' (vs. 'you need to be careful in dealing with people'), the replies for the UK, Poland and Portugal were 30%, 19% and 11% respectively. This is surprising because it runs contrary to the concerns about dangers of public spaces (see below) and to the greater concerns about the Internet shown by the British respondents in the Eurobarometer, in the popular media, and in relation to Government and NGOs activities. Perhaps when being asked the general question about trust, the British have a different frame of reference from when they think about children and strangers. At any rate, this underlines the fact that attitudes are complex.

Child-related values and attitudes

The European Value Survey in 1999 included several questions referring to specific characteristics of children which are regarded as "important qualities" (see Table 23).

Table 23: Important child qualities according to parents (%)

Important child qualities	PL	PT	UK	Significance of difference	
Respondents	*n=4168*	*n=2185*	*n=4744*	*Chi^2*	*P*
Good manners	55	81	83	730,110	,000
Independence	23	22	42	420,154	,000
Hard work	61	69	29	1267,859	,000
Responsibility	73	69	47	621,426	,000
Imagination	11	17	22	136,189	,000
Tolerance/respect for others	79	67	78	113,201	,000
Thrift/ saving money	47	34	24	442,887	,000
Determination, perseverance	31	23	30	44,714	,000
Religious faith	52	27	17	907,695	,000
Unselfishness	12	35	53	1261,223	,000
Obedience	42	44	43	2,354	,308

Source: EVS 1999; analysis, Lucyna Kirwil.

The most important characteristics of children according to parents (mentioned by more than 50% of the parents) were the following:

- In Poland: tolerance and respect for other people, responsibility, hard work, good manners, religious faith.

- In Portugal: good manners, responsibility, hard work, tolerance and respect for others.

- In the UK: good manners, tolerance and respect for other people, unselfishness.

The least important characteristics of children according parents (mentioned by less than 25% of subjects) were the following:

- In Portugal: imagination, independence, determination/perseverance.

- In the UK: religious faith, imagination, thrift saving money and things.

- In Poland: imagination, unselfishness, independence.

UK and Portugal are close in their emphasis on good manners and the low importance of religion and saving money/things. UK and Poland are close in the higher importance of tolerance and in the low importance of determination. Portugal and Poland are close in the high importance of responsibility and hard work and in lower importance of independence. All three countries are very similar in the values for obedience.

In all, the findings suggest that parents might be oriented first of all to relationships in the UK, to conformity and work in Portugal and to competitiveness in work, respecting tolerance and religion in Poland. These cross-national differences suggest the following:

- In the UK: more care about the protection of children against content on the Internet that puts children at risk of inappropriate relationships, which is reflected in the perceived need for more knowledge about how to deal with harmful and illegal content on the Internet even if parents know what to do (hypothesis to be discussed);

- In Poland: because of a focus on other competitive goals there is a lack of concern about risks to children in general (including risks related to the Internet), which is reflected in low knowledge and low need for knowledge about how to deal with illegal content even if parents do not know what to do (hypothesis to be discussed);

- In Portugal: because of higher conformity and respect for relationships there is a greater need for knowledge about how to deal with illegal and harmful content on the Internet when parents do not know what to do (hypothesis to be discussed).
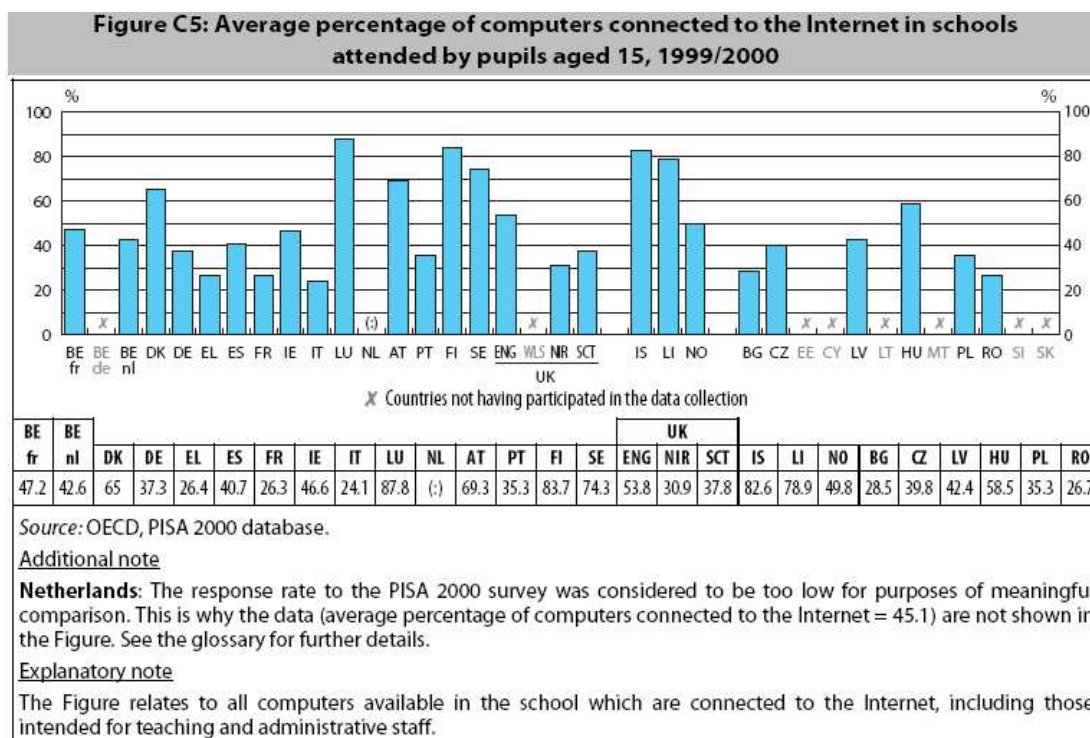
The other question from the European and World Values Survey that might prove interesting is the question of whether children should always respect parents or whether respect must is conditional (i.e. must be earned). Although in all countries a majority felt that children should always respect parents, the minority saying respect should be earned was higher in the UK (35% vs. 14% for Poland and 17% for Portugal). One would have to evaluate this in conjunction with other indicators, but it raises the question of whether the negotiations that take place in (at least a sizeable number of) British households, or how parents approach the issue winning respect, might be slightly different from the interactions in the other countries.

There is one study showing some expected findings for a South European country where traditional family values tend to be stress. A recent survey on Labor (Inquérito ao Trabalho 2005) showed that 84% of the Portuguese workers with children or other dependents in their households do not want to change their professional life in order to have more time to take care of them. This trend goes against the dominant in other European countries.

In all the value oriented indicators as assessed in the European and World Survey seem to provide a basis to explain differences in Internet related behaviours.

4.6 Educational system

The educational system is our final factor assumed to influence Internet related behaviours and risks and opportunities. European level data show considerable cross-national variation both in education provision in general and in ICT provision within schools in particular. Eurydice (2004) reports the following for Internet access in schools:

Figure C5: Average percentage of computers connected to the Internet in schools attended by pupils aged 15, 1999/2000

X Countries not having participated in the data collection

BE fr	BE nl	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	ENG	NIR	SCT	IS	LI	NO	BG	CZ	LV	HU	PL	RO
47.2	42.6	65	37.3	26.4	40.7	26.3	46.6	24.1	87.8	(:)	69.3	35.3	83.7	74.3	53.8	30.9	37.8	82.6	78.9	49.8	28.5	39.8	42.4	58.5	35.3	26.7

Source: OECD, PISA 2000 database.

Additional note

Netherlands: The response rate to the PISA 2000 survey was considered to be too low for purposes of meaningful comparison. This is why the data (average percentage of computers connected to the Internet = 45.1) are not shown in the Figure. See the glossary for further details.

Explanatory note

The Figure relates to all computers available in the school which are connected to the Internet, including those intended for teaching and administrative staff.

Source: Eurydice (2004): Key Data on Information and Communication Technology in Schools in Europe (p. 36). Available at http://www.eurydice.org (cf. also p.53 on pupils' frequency of Internet use in schools).

This area could not be dealt with in more detail in the present three countries analysis. However for the full comparison, data on literacy of the population, the education of the parents' generation, the kind of education for today's children, and more specifically the technical infrastructure of schools and the question whether Internet and media education is part of the curricula will be collected as relevant indicators.

One example for the importance of these aspects is the information in the Portuguese report that in the last 20 years Higher Education has expanded hugely in all three countries. This may produce some similar processes since, as the Portuguese data demonstrates later, Higher Education students are more likely to encounter the Internet. It would be interesting in the 18 country studies if there are countries where Higher Education is still for a relative elite, reducing the base of those most likely to encounter the Internet.

4.7   Explaining differences and similarities across countries

The three country reports included a general section which describes the general societal background. This open approach lead to several further contextual variables which should be included in the 18 countries study as possible determinants of differences and similarities across countries. The following considerations also provide some additional hypotheses regarding the similarities and differences between Poland, Portugal, and the UK.

Levels of social change

Although the term 'transitional' countries is usually reserved for the Eastern ex-Soviet block, on many levels it also characterises Portugal (political transformation, industrialisation, urbanisation etc.). When writing a national account, especially over decades, one can always write about social change, but when we contrast different countries, we see levels at which change is far more acute in some countries than in others. Thus the question is: what implications might those different levels of change have?

Working out whether the degree of change described in the Portuguese case reflects attitudes is possibly more complex. Many European countries had optimistic technological statements, partly in response to the US Information Superhighway report – e.g. there has been a major push to establish Internet access in schools, that is reflected in some of the statistics about places of access that were cited earlier.

But where there has been a more major upheaval, as in Portugal, and some consensus that it counted as improvement, there is a question as to whether this helps to nature a more favourable, positive disposition to the Internet with less inclination to look for negative dimensions. (In the section on regulation, the Portuguese report notes the entirely positive policy discourse.) Perhaps we would have to look to the transitional countries in the 18 country study for signs of this. There is also a question of whether, in Portugal and these other states, technologies like the Internet are seen positively as one of the ways to 'catch up' with other European states.[28] However, the actual data on adoption show a widening gap in practice.

Urbanisation

Turning to specifics, there are a number of factors related to Internet adoption itself. First, there is the increase in urbanisation in Portugal, and the question is whether people are more likely to adopt the internet in urban settings.[29] This was also clearly identified in the Polish national report.

Work and social class

Although the patterns of social mobility may be complex (e.g. people moving from agriculture to urban working-class jobs, people moving from urban working class to urban middle-class) the proportion of working class (manual jobs) is probably different in the UK, Poland and Portugal (this was an example where we did not think about seeking that data for the UK until

seeing the Portuguese figures). Apart from any issues about the 'culture' of different classes, there is less likelihood of encountering and becoming familiar with the Internet in manual vs. non-manual jobs.

Gender

The Portuguese report picks out the high proportion of working women in Portugal. That proportion is known to vary across European countries. In what conceivable ways could this make a difference? At the moment we have no hypotheses in relation to this particular field. The respective European statistics will be included in the analysis of the 18 countries study.

Free speech and censorship

The Portuguese report describes a move to freer speech compared to the era of the dictatorship. Does this have a bearing on feelings about censorship, and hence about what one can put on Internet sites? In the 18 countries study we will look to transitional economies for further evidence relating to this question.

Migration and cultural homogeneity

The UK report picks out the long history of immigration, multiculturalism and whether this may have a bearing upon tolerance of what is on the Internet. There are therefore questions about what difference it makes to live in a country with less of a history of immigration (Portugal), which is more homogenous in many ways, or in countries which were more homogeneous but where there has been a sudden growth in immigration (e.g. the Nordic countries).

Role of the State

The UK refers to the discussions of the 'nanny' state and the expectations of where the Government legitimately intervenes in everyday life. Are these expectations of the role of the state slightly different in different countries, which could have a bearing upon the willingness to get involved in awareness campaigns, legislation and enforcement etc.? In order to grasp this dimension we will include statistics on people's trust in government and public institutions compared to other institutions. In addition, the classification of the (media) political systems in Europe into a) the Mediterranean or polarized pluralist model, b) the Northern European or democratic corporatist model, c) the North Atlantic or liberal model will be included in the analysis.[30]

Internet and broadband diffusion

If we now look at the parts on the Internet/media history, it is pointed out that the UK had earlier adoption rates then the other two countries, and the gap has grown if anything. This may not have a direct effects on attitudes, but does the earlier and greater exposure of British children to the Internet create a different climate where various lobbies can operate because there is, literally, more chances of children's exposure to risk because more are exposed to the Internet more generally. Does this also create a climate where the Government can act, because the concerns relate to a larger proportion of the population?

The Polish report noted that before broadband the speed of dial-up was slow, certainly slower than in the UK. This reminds us that underlying figures showing access we have to consider the quality of access in different countries.

The Portuguese and Polish report refers to the limited take up of broadband in those countries as compared to the UK, as shown in Table 21. One area where this might be relevant is video, and the potential for harmful video content (although it is unclear whether this has been picked out in awareness campaigns). The other is the always on nature of broadband (in the UK) compared to pay as you go which may serve to inhibit exploration. (Once again, it is unclear whether this has been picked up in discussions of risk).

Practical supports to managing risks

The national reports describe practical supports in terms of managing risks (e.g. filters – but only for Poland - and sites to report illegal and harmful content). The fact that only some of the Polish providers offer filters may help explain, or be related to, the lack of awareness of filters that was picked up in earlier statistics.

Mobile Internet access

Up until now we have not really discussed the Internet on the mobile phone, partly because very few children access the Internet in this ways. However, at policy levels (e.g. in the EC) and amongst stakeholders this is discussed. Here we see more initiatives in this field in the EU with operators, but no signing up the code in Portugal.

Language and the experience of the Internet

The UK report makes the point that the whole of the English language Internet is open to British children – in other countries those who do not speak English may experience a different – more limited – Internet.

Legal differences and similarities

As regards legislation, it is clear that some things are criminal offences in the UK (even if not specified in the report) which are not criminal in Portugal. (Earlier a related point was made about a Dutch TV awareness raising campaign – showing those same images would be breaking the law in the UK). This is also touched upon in the UK report discussing legislation.

The fact that the regulator in Portugal has been forced to consider some issues by the EC and current Polish draft law is based on EC directives shows one process working in the direction of similarities across Europe.

General values

The section on general values suggests that, since these run contrary to what might be expected, general values, or at least these measures of them, are not good predictors of specific attitudes and concerns people might have about children and the Internet.

The role of relevant institutions

The UK's Home Office Task Force on the Protection of Children on the Internet is clearly an example of an exceptional institution in this field compared to other European countries, whose actions, along with other stakeholders, greatly influence the statistics were are trying to explain. The degree of collaboration across stakeholders in the UK may also illustrate one set of processes at work.

Although the Portuguese report notes that there is not so much of an NGO tradition influencing policy in Portugal (which is a factor to consider in this right), it lists a number of NGOs for whom this could have been a priority but was not (or was only just being taken up). This implies that when we make the 18 country report, we need not only to count such active agents (in some way or other) but explain their take up of this issue, or not. (The UK report also notes that NGOs are sometimes trying to find the balance between addressing risks Internet related risks to other risks in children's lives).

The case of the Portuguese Ombudsman is interesting – it can show that in a country you could have an actor trying to raise issues but the rest if the climate, including media coverage, is such that nothing comes out of it. In another context, this could have been an example of a 'specific event' that made a difference.

Awareness campaigns

These have clearly been least developed in Portugal, with little involvement by NGOs. Poland has some campaigns and arguably the UK has seen most effort in this area, led especially by a wide range of NGOs.

Media coverage

Turning to the media coverage part of section 4, this was where we could make substantive comparisons between the 3 countries as all had conducted database searches over a set period (although they were not entirely comparable because of the different resources available). The differences are striking. In Poland, where the focus was on the main newspaper, there was more on opportunities than risks, although the later were covered but not in terms of a moral panic. In Portugal the main newspapers carried no news of opportunities or risks. In the UK, with the exception of some main newspapers which also had no news, when there was news it was predominantly about risk and more akin to a moral panic. One would image the media coverage has some bearing on the different national perceptions of risk picked up in the earlier statistics.

If we look at local and regional newspapers and magazines, then there is some coverage in Portugal, and that is in fact where one finds more coverage of children and the Internet in the UK. In both cases, the predominate discourses were about risk, although the Portuguese report showed how this could vary by month. One question is, if this level of press reporting is covering risk in Portugal, why does that not lead to greater awareness than seems to be shown in the Portuguese statistics?

Online and offline risks

Although discussed under the heading of 'significant events', the Polish report in particular draws attention to the examples and trends related to paedophilia. Although one has to be careful in interpreting media coverage, in the UK there also appears to be a significant amount of activity – at least compared to Portugal where this is relatively more invisible, or at least not perceived as such a danger, although this may change. The question than arises of how the levels, the visibility and the perception of paedophilia offline has a bearing of the perceived dangers online in different countries.

More generally, the Polish report underlines that fact that many people worry more about risks offline than online. Hence there is the question of how much this balance varies between countries.

4.8 Implications for the comprehensive cross-national comparison

For a thorough comparison of the 18 countries involved in the EU Kids Online project, the above discussion on the cases of Poland, Portugal and the United Kingdom reveals several indicators that should be assessed for the analysis. The following overview provides a summary of the indicators as well as some remarks on how to define them for a Qualitative Comparative Analysis.

Determinant	Indicator(s)
1. Media Environment	
Status of digitalization	Digital Opportunity Index, including 3 subdimensions: ▪ Opportunity (includes prices) ▪ Infrastructure ▪ Utilization
Status of Internet diffusion	Percentage of Internet users since 2000
Technical equipment at home	▪ Computer at home ▪ Children's own computer ▪ Children's own mobile phone
Quality of Internet access	Percentage of households with broadband access
Internet safety tools offered by ISPs	Availability of specific tools (yes/no)
2. ICT Regulation	
Density of ICT regulation	High/low
Promotion of new ICTs	Programmes to promote ICTs (yes/no)
Social Impact of ICTs	Programmes to raise awareness of social impacts and risks of ICTs (yes/no)
Existence of official hotlines	Yes/no
Public risk awareness campaigns	Yes/no
Specific police activities	Yes/no
3. Public Discourse	
NGOs promoting Internet safety	Yes/no
Awareness campaigns	Target groups, message, and impact
Media coverage on children's Internet use and on safety issues	Search in media data bases: ▪ Frequency of press coverage, ▪ Relative amount of opportunities and risks, ▪ Relative importance of different kinds of risks and opportunities (according to Figure 2)
Significant events raising extensive coverage	Different kinds of risks (according to Figure 2) (yes/no)
4. Attitudes and values	
Risk perception	Importance of different kinds of risks
	World (European) Values Survey: ▪ Trust ▪ Collectivism ▪ Parental goals: Good manners, obedience, independence, hard work, responsibility,

	imagination, tolerance, thrift, determination, religious faith, unselfishness • Attitudes towards technology
5. Educational System	
Literacy	(Il)literacy in the whole population
Education of parents	Percentage of higher education within parents' generation
Technical infrastructure of schools	
Internet/media education as part of the curriculum	
6. Society, polity, economy	
6.1 Society	
Children	Birth rate
Household structure	• Number of children per household • Number of single parent families • Children having their own room
Employment of mothers	Percentage of mothers being professionally active
Ethnic pluralism, migration	Percentage of inhabitants with migration background
Urbanisation	Percentage living in large cities, towns, and rural areas
6.2 Political system	
EU membership	Year of accession
Character of political system	• State vs. Market Model • Classification a) polarized pluralist model, b) democratic corporatist model, c) liberal model (cf. Hallin/Mancini 2004)
Attitudes towards the political system	Trust in government/public institutions
6.3 Economy	
Economic achievement	GDP per person
Structure of economy	Industry / Agriculture / Service (in %)
Income gap	Income of the top 20% and bottom 20%
Structure of work	Percentage of manual workers

5. Conclusion

Different national contexts sustain different understandings of the nature, consequences and perceived importance of the various dimensions of safety and risk, resulting in diverse research and policy priorities (regarding, say, sexual or violent content, risky contact, or concern over racism). These in turn rest on different cultural understandings of childhood, of the balance to be struck between freedom and protection, and of the responsibility of parents, industry and/or the state. We need to understand, and anticipate, how these subtle yet profound cultural factors operate, so as to guide future research and policy at both national and pan-European levels. Such an understanding requires the integration of research cross-nationally, hence the focus of this report.

As discussed in D4.1: The Methodological Issues Review, and as noted in this report, many comparative projects begin with an agreed template according to which national findings, whether based on qualitative data, quantitative data or some combination thereof, are summarised in an overview that permits ready comparison across countries. These may be further organised using some kind of matrix that tabulates countries against dimensions of analysis (e.g. measures of Internet access, Internet use, common activities, incidence of risk, etc). The cells may then be populated with directly comparable statistics (e.g. percentages or other measures), with equivalent findings (e.g. regarding age, gender or other differences), with quotations or excerpts from observations (if qualitative), or with summative comments or notes of interesting differences or similarities.

It may also be desirable to consider groupings of countries (whether top-down, according to a priori similarities and differences by region, language or other known factor, or bottom-up, according to patterns observable in the data). Further, if the data are quantitative and the measures used are standardised across countries, then a range of standard statistical techniques are available, beginning with multiple tabulations and moving towards hypothesis testing and model-building.

For projects that combine qualitative and quantitative measures, or where the measures vary across countries, researchers have developed the various forms of cross-case analysis, including the most systematic version known as QCA (Qualitative Comparative Analysis). In a nutshell, QCA is an analytic strategy to examine the comparability of multiple cases, seeking 'to gather in-depth insight in the different cases and capture the complexity of the cases' whilst still pursuing some level of generalisation (Rihoux, 2006). This method treats as dichotomous the range of variables (whether based on qualitative judgements or quantitative measures) that may be used to explain differences in key dependent variables (e.g. online risk, or parental mediation activities). It then determines the optimal combination of variables that can explain cross-national variation in online risk (or parental mediation, etc) (for some potentially explanatory variables may turn out to play little or no role, and some may only explain variation in risk in combination with other variables).

5.1   Lessons learnt from the exploratory study

Social processes in researching and writing national reports

The three national reports identify a considerable body of potentially useful information, valuable in making cross-national comparisons. Yet even when clear guidelines are provided about the type of content wanted, there is variation in what researchers mention, how they present the material, with what level of supporting evidence and what type of evidence, etc. While this was useful in an exploratory study, now we have to make choices based on the range given in order to be more focused when we move on to the 18-country comparison.

The national reports generated a good deal of detail and it might be unrealistic to expect the 18 country reports to generate that amount of text (let alone the research work behind it). It becomes important to quickly grasp the main points, and so guidelines need to be provided, particularly for 18 countries, about how much evidence should be supplied so as to produce very targeted reports that can aid in the analysis stage. One solution to be considered is to visually separate key points from supporting evidence. This means that all the 'proof' for the claims being made are present, but that can be checked as a separate exercise from identifying the key points in a report.

The clear lesson is that in the next stage of Work Package 3, one must specify carefully what exactly is being asked of the national teams, also indicating ways in which to allow flexibility.

Challenges

In section 3 of this report we started to appreciate the unevenness of the data available. When we wanted to check the Eurobarometer findings against other national studies, this was easier in the UK where a sizeable body of research exists than for Poland or, particularly, Portugal, which had the least data for our purposes. This variation will surely be replicated in the 18 country study. One challenge, therefore, is that when we assemble evidence for European-wide processes, we must ensure that the evidence comes from a range of countries, not just the data rich countries, since their experiences might not be representative of the range of experiences in Europe.

In section 2 we considered not only how our country statistics differed from each other but also how they are located in relation to European averages. However in the 18-country study we need a way of (visually?) mapping this. The question will be: Is there any consistency about where some countries or groupings of countries are located in relation to those European averages?

Whether being older leads to more risk taking is an example of a hypothesis which looked relatively straightforward to check, but turned out to be more complex as one must consider both children's perspectives (often lacking) and a detailed classification of risks (as research varies in the risk examined). The same was the case when we began to examine gender differences in online risk.

The first country overviews are complex to write (e.g. deciding what to include), and the effort requires a good deal of background knowledge. The value of such accounts is that they stimulate further questions, so generating a larger pool of hypotheses than were available at the outset. In the 18 country study we can decide which hypotheses have more promise and are practical to follow up. It may only be possible to explore certain hypotheses by comparing few strategically chosen countries (e.g. transitional states, Nordic states), where data is available, but that might still be useful.

Useful background information

In general, in this report we have started to identify the types of data needed to examine the contexts and consequences of children's risky encounters online.

In section 2 of this report, it proved useful to have background statistics, contextualising data from multi-country studies (e.g. children's Internet access in general, access by gender, access at school). This allows basic observations such as that there seems to be less overall risk to children in a country if fewer children have access to the Internet. At the same time it allows us to identify what data is missing (e.g. comparative broadband data and certain data on attitudes and skills).

The case of the UK's Home Office Task Force (as well as various other details about media coverage legislative frameworks) show the importance of incorporating descriptions, histories and background information to throw light on what may be influencing patterns of statistics. In the Portuguese report, in the section on regulation, there is some text on the lack of a hotline that really conveys a sense of the state of play in Portugal. In the 18 countries report selected sections of text like this could be boxed and utilised to illustrate what might lie behind some

figures. The Portuguese case also showed the importance of a particular significant event – the kidnapping of Madeleine McCann. Not all countries will have such events, but it would be useful to have more examples in the 18 countries study to indicate the range of possible events.

Potential strategies

We are in a better position after the three country preliminary study to develop more refined proformas for national reports, including recognising what information we do not need because it did not really help. We can also now see some ways of being more strategic at the next stage with the 18 countries study. For example, we have already observed some differences in the regulatory frameworks of the three countries. Rather than asking national teams to 'describe' the regulatory framework in general in the next stage, we are in a position to identify more specific questions based on the types of observation in this report.

It is only when one sees other countries' notes on a topic that one realises one could have supplied the equivalent information in one's own account. Therefore, when moving on to the 18 countries we are now in a better position of developing a more detailed checklist of information that national teams should supply. One strategy at that next stage may be to provide examples from the three country accounts for other countries to react to (i.e. is this the case in their country?) in addition to providing more general headings and guidelines.

Although this was only a three countries study, at times we adopted the strategy of identifying the outstandingly different cases, when one finding is notably different from the others. We will explore whether this can be carried over into the 18 countries study – focusing at certain moments on strategic cases. In general, in section 4 we looked for clues about processes that might explain the figures we have already identified. In the 18 countries study, as an exercise, it might be useful to say what we would expect to find in certain other countries if these processes are influential – and then check the appropriate figures.

Searching media databases and analysing content can involve some effort, although in the three countries study this research brought out some contrasts which one feels must have some bearing on parents' perceptions of risk and opportunity. For the 18 countries study, we suspect that some countries will not have media databases available as a resource, but some more examples of this from other countries, showing the contours of different types of coverage and seeing if this can be mapped onto awareness statistics is probably worthwhile.

The Portuguese report notes that 'The low level of media literacy and guidance for children among parents may be connected with the low level of literacy in general and achieved schooling.' Therefore, we might check literacy and levels of schooling for the 18 participating countries, if such comparative data is available. This example shows how observations in a single national report can open up avenues for further investigation.

5.2 The next steps

On the basis of the above considerations we have developed templates for the second deliverable of this Work Package (see Annex D). All country teams will get a detailed template along which they will write country reports. This template includes the hypotheses on the individual level as developed in section 3 as well as the list of indicators on the country level, which have been summarized at the end of section 4.

In parallel with this work, it will be vital to update the contents of the data repository (Work Package 1), to ensure that as comprehensive a base as possible is available for the comparative work.

For all indicators which can be drawn from existing international statistics, the coordinating team and Work Package 3 members will compile a table of comparative statistics. First drafts of the country reports as well as the comparative tables will be discussed at the next meeting (November 2007), final country reports will be due in January 2008.

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Annex A: EU Kids Online

European Research on Children's Safe Use of the Internet and New Media, see www.eukidsonline.net

EU Kids Online is a thematic network examining European research on cultural, contextual and risk issues in children's safe use of the Internet and new media between 2006 and 2009. This network is not funded to conduct new empirical research but rather to identify, compare and draw conclusions from existing and ongoing research across Europe.

It is funded by the European Commission's Safer Internet plus Programme (see http://europa.eu.int/information_society/activities/sip/index_en.htm) and coordinated by the Department of Media and Communications at the London School of Economics, guided by an International Advisory Board and liaison with national policy/NGO advisors.

EU Kids Online encompasses research teams in 18 member states, selected to span the diversity of country and of academic discipline or research specialism: Austria, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, France, Germany, Greece, Iceland, Norway, Poland, Portugal, Slovenia, Spain, Sweden, The Netherlands and The United Kingdom.

The objectives, to be achieved via seven work packages, are:

- To identify and evaluate available data on children's and families' use of the Internet and new online technologies, noting gaps in the evidence base (WP1)

- To understand the research in context and inform the research agenda (WP2)

- To compare findings across diverse European countries, so as to identify risks and safety concerns, their distribution, significance and consequences (WP3)

- To understand these risks in the context of the changing media environment, cultural contexts of childhood and family, and regulatory/policy contexts (WP2&3)

- To enhance the understanding of methodological issues and challenges involved in studying children, online technologies, and cross-national comparisons (WP4)

- To develop evidence-based policy recommendations for awareness-raising, media literacy and other actions to promote safer use of the Internet/online technologies (WP5)

- To network researchers across Europe to share and compare data, findings, theory, disciplines, methodological approaches, etc. (WP1-7)

Main outputs are planned as follows:

- *Data Repository*: a public, searchable resource for empirical research (now online)
- Report on *Data Availability*: a mapping of what is known and not known (Sept 2007)
- Preliminary Report *Comparing Three Countries* (Sept 2007)
- *Methodological Issues Review* (Sept 2007)
- Report on *Cross-National Comparisons* over 18 Countries (Sept 2008)
- *Best Practice Research Guide* (for future research in this field; Sept 2008)
- Report: *Cross-Cultural Contexts of Research* (March 2009)
- *Final Conference* (June 2009)
- Report: *Summary and Recommendations* (June 2009)
- *Final Report* and *Book* (Sept 2009)

For further information, see www.eukidsonline.net or contact p.tsatsou@lse.ac.uk

Annex B: Network Members

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Annex C: Country reports on contexts

(i) Poland

1.1   The general context

Compared to the Communist era the wealth divide is one dramatic now. In fact, in some regions the degree of poverty is immense. However, it is difficult to make an evaluation of overall changes in wealth because one cannot rely on statistics from the communist period if one wants to make a comparison. Certainly the feeling that there is greater poverty now, more people feel that there basic needs are not being met. Because of this, many in the older generation vote for a return to communism. In fact, in one survey 60% said would like to return to that system because it felt more secure. In part, poverty reflects a high level of unemployment. In 2003 the unemployment rate was about 20%. It was at its lowest (17%) in 2005 after emigration. In some regions, there 48% unemployment, whereas the rate is lowest in large cities: 3-6%. Salaries are also higher in the cities, much higher Warsaw. Therefore, there is a large difference between large cities, small cities and rural area – which is reflected in the use of Internet. Those with a higher education are economically better off.

There was a dramatic increase in crime after the transition from the communist state, especially violent crime among juvenile females. From 2004, the rate stopped increasing, at least for juveniles. This crime appears to reflect a combination of relative deprivation and a lack of social control due to the weakness of police and judicial systems. Since the penal code did not change for many years after the transition there was not enough of a deterrence to crime. There had been a change in other types of crime as well. Under communism, access to new technologies had been blocked (i.e. people could not bring new generations of PCs in the country, of software such as SPSS. After the transition such technology, albeit not leading edge, came into the country via Hong Kong. This enable new (for Poland) forms of crimes, such as fraud via the Internet in its early days. As regards violent crime, guns have been permitted since 1994 and various Mafias have developed organised crimes

In recent years Poland has broadened its Higher Education system. The number of students in HE is increasing all the time, but this reflects no so much an increase in the state sector but rather the fact that the private sector was allowed to enter as well. There have been other changes in the HE. In the past Poland did not have Batchelor's degree as such, only 5 year courses, or 4 years for engineers, of 6 years for medical students. Now private schools are offering 3 year BAs, and after obtaining this, students can go further in their education. Since this new option shorter and easier, it has also attracted more students. The growth in student numbers covered up the issue of unemployment in the 1990s, hiding unemployment in the young generation at that time.

Under Communism there had been 100% literacy – everyone had to finish successfully their extended primary education (until 15 years old). Certainly white-collar work required this, as did any responsible position. Literacy rates were still high.

Women still form a high percentage of the labour force, but they are decreasing in high key decision-making positions (e.g. school principals). This reflects a growth in conservatism and any emphasis on more traditional feminine and masculine roles. The Church – which always had influence, even under Communism - provides guidance for lifestyles and aspirations, and is growing stronger. Its conservative message is also supported by the Government, demanding a more feminine social role – e.g. young women must be mothers.

In 1987, 43% of the population worked in agriculture. It is now about 10% less. Peasant farming has to an extent given way to farms as well organised businesses. As regards class, after 1989 there was a movement organised in non-Governmental circles to create a new middle-class. Certainly in Warsaw European and other foreign companies and their social networks came arrived (reflected in the shopping malls that sprang up in town. Hence a middle-class grew quickly in such big cities. However, in the old industrial cities, the new

owners these companies fired the workers, leaving little basis for the development of a middle-class.

The towns have grown since the transition. Under communism the construction of private buildings was limited. Once it was allowed there was a boom in the construction of family houses. This was one of the first noticeable changes after 1989 when those young families with enough money, who had previously lived as extended families in small spaces, rushed to get own their own place to live. However, this was not an option for the poor unemployed who often continue to live in small, crowded dwellings

Poland is a very homogenous society. 97% of Polish citizens speak Polish, 96% are Catholics. They are now starting to get people from other countries - e.g. British, Germans, Americans who work for companies in Poland are now living there as are migrants looking for job opportunities – e.g. Vietnamese street bars. There is a black market labour force of Ukranians, working in such jobs as cleaning ladies and gardeners. On the one hand there is a long tradition of tolerance to others e.g. religions. That said, there were riots before and after the second world war against Jews and Gypsies. One there whole there has not been much experience of racial diversity.

The state is (still) quite interventionist, regulating various spheres of life – remove people associated. Many regulations are related to education, but rather than increasing knowledge of modern world there is more of an emphasis on controlling that knowledge, such as remove literature which is not appropriate – e.g. certain theatre plays. It is in this context that they are not only attacking illegal content, such as porn but seeking to protect children against knowledge of homosexuality, abortion, etc.

1.2   Media Environment

Diffusion of ICT infrastructure

While ICT expenditure as a percentage of GDP is high in Poland (5.5%), the percentage of households, having the Internet access at home and the number of broadband connections related to population are very low compared to the weighted average of the EU25. The relatively low penetration rates can be explained by high costs for the Internet connections, which is one of the highest in the whole Europe in relation to average household incomes in Poland.

The Ministry of Scientific Research and information Technology (MNiI) conducted two surveys on public administration information infrastructure and online public services, in 2004. Data from the surveys show that more than 75% of the public administration offices (all levels) spend less than 1% of their budget on ICT. Almost all (99%) offices have access to the Internet and a web page, but only 14% of the offices had provided ICT-training for the civil servants. Only 25% of districts (*gminas* , i.e. local administration) have Public Internet Access Points.

According to surveys by CapGemini and MNiI, 43% of services for business are provided online, but only 31% of services for citizens are provided online. Regional leaders in e-Government are regions Pomorskie and Lubelskie voivodships which have made more than 40% of their public services accessible online. However, only 2% of the public services in Poland are fully available online.

After Poland accessed the European Union a dynamic increase in the usage of new technologies has been noted. According to the National Statistics Bureau in Poland the percentage of households having computers increased from 36% in 2004 to 45% in 2006. In 2004 only 26% of households, while in 2006 36% of households Poland had an Internet access. In 2004 only 8% of households used broadband Internet but 22% of households had broadband in 2006 A similar increasing trend was observed for the possession of mobile phones in households: 58% in 2004 and 74% in 2006. (For mobile phones with the Internet access the ratios were: 19% in 2004 and 31% in 2006). The difference between households with children and without children suggest that the presence of children in the family promotes

the adoption of new technologies. For instance in 2006 only 66% of families without children used mobile phone (only 22% families used mobile phones with Internet access) while 93% of families with children used mobile phones (42% families used mobile phones having Internet access). Only 36% of households without children owns computer, but 65% of households with children own one. Only 31% of the former but 47% of latter had the Internet access in their homes.

The speed of adoption of new technologies in Poland differs very much on size of place of residence and SES. In 2006 only 25% of families living in countryside, compared to almost two times as much, i.e. 46%, of families living in big cities had the Internet access.

To show rural urban variation, in a survey between 2004 and 2006 this was the distribution for broadband Internet access:

Table 24: Rural-Urban Variation for Broadband Internet Access in Poland

Place of Residence	Survey in 2004	Survey in 2006
Villages	1	10
Small towns	9	23
Big cities	14	31

Source: Korzystanie z Internetu i komputerów. Komunikat z badań. Warszawa, kwiecień 2007: CBOS [The Internet and Computers Usage. Research communication. Warsaw, April 2007, Research Center for Public Opinion; in Polish]

However, at first when there was no broadband, the speed on lines was slow and sometimes a gateway to the Internet would not open because too many people were trying to use it. It used to take a long time to download something – longer than in the UK when dial-ups were used there. For the users not having the broadband Internet access downloading is still very slow process making it sometimes impossible to download all document, clip with song or movie.

According to data from the National Statistics Bureau only 17% of those families, whose income was located in the lowest quartile, had access, while 73% of those with the highest income had it. However, the main reason for not using the Internet was a lack of need (43% of households without the Internet access indicated this reason) and then costly equipment (36%) and access (35%).

In 2006 Poland was very close to Portugal on a lower position than UK in terms of access to new technologies (see table below). Poland and Portugal represented countries located below the mean for European Union states and UK represented a state above this mean.

Table 25: Access to new technologies in the three countries and the EU average (2006)

Country	Computer	Internet Access	Broadband Internet Access
Poland	45	36	22
Portugal	45	35	24
UK	71	63	44
Average for 25 EU States	62	51	32

Source: Eurostat 2006; selection Lucyna Kirwil

Problems related to safety of the Internet were met by 45% of the Internet Polish users during one year (July 2003-June 2004). The most frequently experienced problems were unexpected and unwanted e-mails (35% users) and viruses attacks (29%. Illegal usage of personal data was experienced by 2% of users. To increase the safety of the Internet usage 48% of users in Poland installed anti-virus software and 35% of them operate it. Special forms of protection including firewall were installed in that year by 14% of Internet users. 24% of users used personal IDs, electronic signature or PIN and password to increase safety.

Recent Governments and public discourse have been very positive about the Internet. In the past the Communists had blocked communication channel (e.g. phones were not easily available. Therefore, new technologies s that make it easier to communicate between people were promoted. However, the Internet did not come quickly. The ISPs from abroad wanted to make money and so subscription was, relative to incomes, dear and the same is true for mobile phone tariffs.

Some, but not all, ISPs now provide information about protecting children. This is an area of change. OnNet has family filter for parents who wants to control children's usage – although it was not active for some time, and children often knows how to cancel it.

The Ministry of Education and NGOs promote Internet access in schools. The aim is to put the Internet in all schools in Poland. It is being portrayed as a new kind of library, with access to world knowledge. For example, Intraclassa – in charge of the Polish Mediappro research – is involved in this.

Media industry: Prices, content, search engine results

After 2000 there was a Internet boom in Poland. Use of the Internet by different levels of government was also growing, although the information available to users was sometimes limited. Municipal government Web sites often show documents used for municipal government and samples of standard letters to request services. There are sometimes opportunities for the Internet users to give 'feedback' to the government through comments on pending budget and planning decisions.

Central government ministries post addresses, biographies, current policy statements, and electronic versions of basic documents. In an unprecedented action, Poland's Ministry of Posts and Telecommunications posted a draft law on telecommunications, in Polish and English, and requested comments. The draft law was subsequently revised in the light of the comments before being submitted to Parliament. Parliament often posts draft laws and new legislation on its Web site (http://www.sejm.gov.pl), sometimes in both Polish and English.

The Office of Electronic Communications has analysed the fixed-line Internet access market in Poland between 2002 and 2006. This analysis concludes that the broadband access market in Poland has developed significantly over the last year. The data held by UKE shows that in October 2006, in comparison with October 2005, the number of lines serving always-on broadband grew by more than one million lines in total, which meant a growth of 172%. The growth was caused both by the activation of new lines (over 800,000) and the upgrading a certain number of narrowband lines to support transfer capacities in excess of 144 kbit/s (over 200,000 lines).[31] Therefore, in October 2006 the penetration of fixed broadband lines per 100 inhabitants amounted to c.a. 4.5%, which contributes to a growth of 2.8 percentage points as compared to 2005. In turn, the penetration of lines supporting broadband access irrespective of the capacity offered, i.e. including still common 128 kbit/s lines, amounted in 2006 to 5.8%. In 2005 this rate was equal to 3.6%.

The gap between the total number of lines and the number of broadband lines has also significantly diminished. Thanks to the most comprehensive telecommunications network and numerous promotions based on long term contracts Telekomunikacja Polska S.A. (TP S.A.) is currently an operator that managed to win significant advantage over other entities providing the broadband Internet access. TP S.A. has more than a half of all broadband lines in relation to all lines offered by the biggest telecommunications undertakings active in this market and the most comprehensive offer in terms of prices and service options. Alternative

operators, in particular cable operators, which at the end of 2006 had in total 900,000 lines with The Internet access are competitors to TP S.A.

Despite dynamic growth of broadband lines, Poland continues to be a country with low penetration rates in this regard. In comparison with other EU Member States in July 2006 Poland ranked second-bottom in terms of broadband lines penetration (lines in excess of 144 kbit/s), like the year before, while as of 1 October 2006, Poland ranked third-bottom. This result proves that despite significant growth in the number of broadband lines Poland has much to make up for in this regard. The European countries will not wait for latecomers, but continue to increase Internet availability, leaving Poland behind and the activities that are undertaken are not fully effective. Even investment that may be expected from the EU financial programmes will not change the broadband scene in Poland over the next two years to such an extent that the gap between Poland and European average significantly diminishes. The effects of investment will be rather postponed in time. In Poland, there is a great number of the Internet providers though the majority of them are smaller ones. There is a virtual monopolist, Telekomunikacja Polska S.A., having a great advantage because before 1989 it was an only company that could provide telephone services to Poles. And although after transformation it war privatised, it still has a great share of the Polish telecommunication market.

Other Internet providers are the cable television channels providers (UPC, Aster), mobile phone networks (Era GSM, Plus GSM, Play) and even private televisions (Polsat).

Liberalisation of the telecommunications sector is progressing in some fields such as mobile telephony, data services, and integrated corporate services, but generally remains stifled by the former state monopoly (now owned by France Telecom), TPSA. TPSA still controls over 90 percent of the land telephony market. The government began to sell stakes in TPSA in October 1998, and agreed to open domestic long-distance service to competition in 1999 and international services in 2003. French enterprise France Telecom became TPSA.'s largest shareholder in 2001, but the government still retains some shares. In the mid-1990s, a number of competitive local exchange carriers bought licenses and started services; most have left the field because of TPSA's resistance to providing interconnection. Several competitors remain, providing local phone service for corporations and long distance service to both corporate and consumer markets. Government regulatory agencies have taken efforts to curb the anticompetitive behaviour of TPSA, which retains a monopoly over interconnection and a virtual monopoly in international long distance communications.

Because of the slow development of penetration levels in TPSA's network (with some 10 million subscribers) and limited prospects for competitive infrastructures with nationwide or at least regional coverage being deployed soon, in 2006 UKE enabled alternative operators to compete with TPSA, which has resulted in the price reductions reaching as much as 60% over the last year.

Before the market became really competitive TPSA had undertaken anticipatory measures and has offered within the last half a year significantly lower prices and a whole range of different promotions. The reduction in prices concerned in the first instance offers involving long-term contracts concluded for up to 36 months. The subscriber who has signed a long-term contract cannot terminate it without incurring additional costs linked to a compensation for premature termination of a contract. If the subscriber wanted to sign a contract for the Internet access services without long term commitments, the price of the service would be much higher than in the case of loyalty contracts. Due to a considerable price difference between standard and promotional (loyalty) offers, most contracts for the provision of the Internet access services concluded with telecommunications undertakings are contracts for a specified period of time, as a rule for 24-36 months.

The view of the President's of UKE is that the relatively high price levels that continue to exist in addition to long term contracts prevent the growth in the number of new connections supporting fixed broadband access and hence Poland climbs the EU rankings too slowly.

Due to insufficient wholesale regulation and the absence of clear prospects for an alternative offer available to the public over a foreseeable period of time and also due to problems in the

retail market, such as discrimination against certain groups of subscribers, unfair terms and conditions in contracts and rules and regulations, the President of UKE decided to impose additional regulatory obligations on the incumbent by including xDSL lines in the market for access to the public telephone network at a fixed location for residential and non-residential customers. These lines constitute an element of the telecommunications infrastructure, which in technical and functional terms may be used to provide telecommunications services for different purposes: traditional voice telephony and broadband The Internet access.

On 10 January 2007, the European Commission voted on draft decisions notified by the President of the Office of Electronic Communications. The position of the President of UKE on this matter was published on the UKE's website. The President of UKE will continue to take all measures in order to improve the situation in the Polish Internet access market so that the service becomes more available to end users. Broadband access, in particular the one that is provided by means of lines supporting advanced the Internet services, is one of the priorities of the Polish regulator.

In the past the Communists had blocked communication channel (e.g. phones were not easily available. Therefore, new technologies that make it easier to communicate between people were promoted. However, as we have seen, the Internet did not come quickly. The ISPs from abroad wanted to make money and so subscription was, relative to incomes, dear and the same is true for mobile phone tariffs. Prices per month for the transfer 512 kb in February 2007 (in zlotys, 1 zloty = ¼ euro) of the major the Internet providers in Poland are different for various providers:

Table 26: Examples of Prices for the Internet Services in Poland by Various Providers (February 2007)

Provider	TP S.A.	NETIA	GTS	UPC	ASTER
1 year's contract	-	60,00	59,78	39 ,00	-
2 year's contract	33,00 for 1st year 66,00 for 2nd year	44,30	43,92	-	-
3 year's contract	28,00 for 1st year 56,00 for 2nd and 3rd year	64,00	41,48	-	-
Without contract	168,36	85,40	-	89,00	107,01
Speed	512/64	512/128	512/???	512/64	512/128
Transfer limits	15 GB	-	-	10 GB	-
Technology	ADSL	ADSL	ADSL	HFC	HFC

Source: http://strefa.org/telekomunikacja/promocje-na-the_Internet.html; selection: Tomasz Łysakowski

1.3   ICT Regulation

Legal Framework

On July 11, 2000, the Council of Ministers adopted the *Program of Government Legislative Work on Trade by Electronic Methods for 2000-2002,* which became a government program. It includes legislative objectives of essential significance for the economy run by electronic methods, defines the responsible ministries and indicates completion deadlines. To ensure safety and certainty of electronic commerce, and to promote contracts concluded by means of electronic information carriers it was of the utmost importance to prepare legislation on electronic signatures together with implementing regulations. The Polish draft law on electronic signatures is based on its understanding of the European Parliament and Council Directive 1999/93/EC of December 13, 1999 on the Community framework conditions for electronic signatures, which is the basic legal act in the European Union in this respect.

On November 28, 2000, the Council of Ministers adopted a position with regard to that resolution and the programme document *Aims and Directions of the Information Society Development in Poland,* prepared by the State Committee for Scientific Research in co-operation with the Ministry of Telecommunications. The document sets out the following priorities: universal access to information, information technology education, changes in employment structure, law and offences in information and communication fields, electronic document and commerce, public procurement, information technology implementation in the administration, information and communication technology market development, science and culture. Simultaneously, the Council of Ministers agreed to undertake a number of activities aiming to accelerate the development of an Information Society in Poland. The Minister of Telecommunications was requested to develop the document *ePoland – Strategy for the information society development in Poland, 2001-2006* (the text of the action plan is available on http://www.ml.gov.pl) modeled on the EU initiative, *eEurope*, and the Minister of Interior and Administration was requested to draft a summary plan for the development of communications and their applications in government administration. Additional tasks were also entrusted to the Minister of Science who was requested to establish a multidisciplinary advisory body comprised of independent experts in various fields and economic sectors, the responsibility of which would be to prepare Information Society initiatives. The Minister of Science completed this task by appointing on February 8, 2001 an Information Society Forum which meets at least quarterly and renders opinions not only on information technology implementation plans but also on implementing regulation of the telecommunications law.

Promoting information technology is described as an essential task under the government programme *e-Poland*. The programme was adopted by the Council of Ministers on July 11, 2001. It anticipates:

- The expansion of a modern information infrastructure of a supra-institutional significance;
- The creation of and support for the activities of information centers, training and technology transfers with regard to information technology, especially to support a widespread use of such technologies in small and medium enterprises, particularly in rural areas;
- The support for innovative projects by small and medium enterprises, aiming to utilize IT solutions in products;
- The legislative work aiming to regulate, together with European Union countries, the legal problems posed by new applications of information technologies, such as:
  -safety and confidentiality of electronic transactions;

  -protection of intellectual property with regard to works available on the Internet;

  -protection against dissemination of amoral or criminal contents on the Internet;

  -adjustment of civil law regulations to deal with particular features of electronic transactions (electronic signatures, statements of will, time and place of contract execution, enforcement of claims for non-performance or improper performance of a contract);

-personal data protection;

- The formation of an information society through a widespread use of information techniques in training and education, corporate governance, services (including the development of electronic services and electronic commerce);
- The dissemination of knowledge about the benefits stemming from innovative applications and information technologies in products, processes and services, through the organisation of exhibitions, fairs, symposia and conferences;
- The raising the social prestige of science and engineering by publicising information technology achievements in the mass media;
- The promotion of Polish scientific and engineering thought and Polish information technologies abroad.

Some efforts were made in Poland to establish a legal framework adjusted to the properties of electronic transactions, including electronic settlements and payments. These regulations are to ensure the safety of transactions and effective protection of the rights of e-trade participants at the same level which is guaranteed by regulations for contracts concluded by traditional methods.

As regards the media sector in the context of the Internet, one of the most important premises is the clear-cut distinction between the regulation of contents and technical transmission. From this point of view it ought to be stressed that there is no special regulation for the Internet content in Poland; therefore the existing legal provisions in the scope of the *Broadcasting Act*, *Press Law*, *Copyright and Related Rights Act* and more generally the *Penal Code* and *Civil Code*, etc. should be applied, obviously taking into consideration the international character of the Internet.

As regards the technical issues of digital broadcasting and Internet – access, the relevant act is the *Telecommunication Law*. It is important to stress that in the case e.g. of schools, public continuous education centres, public libraries, the expenses related to a network connection service provided to ensure broadband Internet access is financed from the national budget (Art. 81, 100).

According to the presumptions included in the national strategy to develop the information society, which is in accordance with EU standards in this respect, two acts were enacted. The first one is an *Act on the Electronic Signature* (18 September 2001), while the second one is an *Act on Electronic Services* (18 July 2002) consists primarily of rules, concerning mainly duties of service providers and data protection issues. *According to this act the Internet service providers should not allow pornographic, offensive or inappropriate materials to reach children and people who do not want to watch it. ISP should ask people about their age and should not let under-aged people have profiles with, for example, pornographic material.*

There are more acts pertaining to the ICTs in Poland. The *Act on Access to Public Information* (September 6, 2001) introduced an obligation to publish an official electronic journal, the *Public Information Bulleti*n (*Biuletyn Informacji Publicznej*). Terms and conditions, legal effects of the use of electronic signature, rules on providing certification services, as well as rules on the control over entities providing such services are laid down in the aforementioned *Electronic Signature Act* (September 18, 2001). An *Act on Computerisation of the Operations of Certain Entities Performing Public Tasks* (April 19, 2004) regulates mutual cooperation of IT systems public registers, to secure budget savings owing to more effective public spending on IT and to transfer public services to the electronic platform; to increase the effectiveness of actions and the quality of services provided by public administration. An *Act on Telecommunication Law* (July 16, 2004) ensures widely available, cheaper, faster and more secure communications. An *Computerization Act* (February 18, 2005) is an instrument for the modernization of the Polish public administration and the coordination of the country's computerization. Among other things, the new legislation:

- Gives citizens and business the right to contact public authorities electronically;
- Establishes the Plan for the Development of the Information Society in Poland and a number of projects of public interest;

- Provides for the technological neutrality of IT systems used by the public sector.
- Sets the minimum requirements for IT systems used for the fulfillment of public administration tasks, for public registers, and for the electronic exchange of data between public entities;
- Introduces an interoperability framework for public sector IT systems, in order to facilitate seamless communication both among public bodies and between government and citizens and businesses.

According to the strategy of the National Broadcasting Council, the conditions allowing for the creation Polish information and cultural resources on the Internet should also be provided (*"In the line with worldwide trends, feeding program contents into cyberspace should consist of the promotion and creation of the conditions for the operation of radio and TV broadcasters …on the Internet and for their transformation into multimedia content producers and distributors").*

The three articles of the *Polish Penal Code* might be the basis for setting penalty for the violations of rules prohibiting the posting of pornographic content on the Internet:

Art. 200 PC:
§1 Whoever engages a minor under 15 in sexual intercourse, exposes a minor to sexual activity or leads him to perform such an activity, is liable to imprisonment up to 10 years.
§ 2 Whoever records pornographic material involving a minor is liable to the same penalty.
Art. 202 PC:
§ 2 Whoever presents pornographic material to a minor under 15, or gives a minor access to objects of pornographic character, is liable to a fine, restriction of freedom or imprisonment up to 2 years.
§ 3 Whoever produces in order to distribute, import or spread pornographic material involving a minor under 15, or such material involving violence or animals, is liable to imprisonment from three months to five years.
Art. 204 PC:
§ 1 Whoever induces other people to engage in prostitution, or facilities such practices with a view to gaining financial profits, is liable to imprisonment up to three years.
§ 2 Those who gain financial profits from the engagement of others in prostitution are liable to the penalty specified in § 1.
§ 3 If a person specified in §1 and § 2 is a minor, the offender is liable to imprisonment from one to 10 years.

Sentences for pedophiles rarely reach 10 years' imprisonment, the upper limit. Usually, they stretch to two or three years, often suspended. Court and police figures indicate that only one-third of offenses end up in court.

At present children protection against Internet related risks is on the agenda of the Polish Parliament. The discussion takes place on the following issues: In what form and how should rating system for computer games, CDs, DVDs, films at cinemas and TV be introduced, the Internet risks are treated as one subtopic of this discussion – and regarded as particularly difficult to solve.

The Police do look for pornographic sites and they have a unit trying to find paedophiles. In fact, recently, in cooperation with 2 NGOs, they were was successful in locating a group of paedophiles

Children are free to post their own materials in the Internet. Nobody controls that in Poland.

The most popular places where Polish people upload their photos, films and find other people for dates: fotofilrt.pl, twarzeee.pl, randka.wp.pl, Randka.iq.pl, Randki.org, e-randka.pl, Znajomi.interia.pl, eAmore.com.pl, Sympatia.pl, Randki.o2.pl, Cafe.gazeta.pl, Randki24.pl, Grono.net, Wrzuta.pl, Video.google.pl. (Children are included since the majority of sites do not ask about age or do not verify it so children may declare that they are older than they are in fact).

Relevant institutions (NGOs, ISPs)

NGOs in Poland conduct independent studies and organize conferences and advertise the need for protection of children against harmful contents in the Internet (increasing awareness of risks).

The Kid Protect Foundation is engaged in a struggle against pedophiles as part of the *Stop Pedophiles* campaign. The foundation has operated since June 2002. Its objective is to prevent the use of the media, mainly the Internet, for purposes involving child pornography and pedophilic practices, and to protect children against sexual abuse. The foundation operates in cooperation with the Police Headquarters.

A group of the Foundation's volunteers constantly monitor Polish Net resources with an eye to detecting child pornography and pedophilia, and hand information about cases over to law enforcement bodies. A program blocking access to pornographic websites, created by volunteer IT experts, is also a way to protect children. Foundation workers visit elementary and junior high schools, talking with parents and instructing them on how to protect their children.

Poland's first Internet Monitoring Center operates a hotline, where cases involving violence and child pornography can be reported. The center was established jointly by Kidprotect and the Scientific and Academic Computer Network (NASK). The Internet users can report offenses involving child pornography. In order to prevent such contacts with children, the link "report incidents from chat" has been opened on the Kidprotect website.

Nobody's Children Foundation has a grant from the EC and organises Safer Internet Day and conferences open for public and teachers. This foundation also founded two wide studies on using the Internet safely among children using the Internet (in 2003 and 2005).

The previous Government had a programme promoting information literacy e.g. it produced magazines for pupils. NGOs are probably more active than the Government

1.4   Public discourse

Awareness campaigns

Awareness of risks related to the Internet results from numerous awareness campaigns organized by NGOs in Poland in the project *Safer Internet for Children.* According to surveys conducted by Gemius, almost one third of parents (28,4%) in Poland are not aware of risks arising from their children's Internet use. Children find information about risks related to meeting new people online mostly through the media: through television (89,1%), through newspapers and magazines (74,8%) and through the Internet (83,7%). Only more rarely do they learn about this kind of risks from their parents. Only 55,0% of parents inform their children about risks online.

An example of the effects of awareness campaignes is related to the action *Dziecko w Sieci* (*A Child on the Net*) aimed to influence children and youth's awareness of the risks related to meeting new people online. This action is recalled by about 70% of children from 12 to 17 years old. Almost every third kid (28,7%) has heard about the Internet project *Sieciaki* (*Kids Being in Net*) offering a safer being online (source: *Badanie zagrożeń związanych z poznawaniem nowych osób przez Internet wśród dzieci 12-17 lat.* Gemius S.A., Warszawa, styczeń 2006; *Research on Risks Related to Meeting New Persons in the Internet among Children 12-17 Years Old.* Gemius S.A. Warsaw, January 2006; in Polish).

An important part of the awareness campaigns is the popularisation of the risks and opportunities presented at the website: http://bezpiecznyinternet.org .The Ministry of education and Ombudsman for Children's Rights have been involved in campaigns to raise awareness of risks as well.

Media coverage

In 2004 a daily newspaper *Życie Warszawy* (*Warsaw Life*) launched the campaign dubbed 'Put Up A Pedophiles List'. The paper demanded that pedophiles undergo therapy and that a database of people convicted of sex crimes be established. Monitoring the IRC and chat rooms, they found that pedophiles were setting up temporary chat rooms in order to exchange contacts.

In May 2007 the report was published by the bureau of the Polish Ombudsman for Children Rights, Ewa Sowinska *The Internetowe portale społeczościowe a bezpieczeństwo dzieci* (*The Internet Social Portals and Safety of Children,* the report of Ombudsman for Children's Rights, May 2007, Warsaw, in Polish). They found that Polish web-portals do not do enough to meet state and EU regulations on the safety of children. They enable children to have unauthorized accounts, offer chat services to kids, etc. The kids between 10 and 15 years old can have their own announcements even when they admit their age. If there is pornographic material on the portal, sometimes there is a warning, and sometimes not. Many kids complained about being humiliated, bullied, accosted and persecuted by other children that they knew or did not know. In that situations, they did not know whom to inform.

In June 2007 the Ombudsman for Children's Rights held a meeting to discuss the outcome of the survey with scientists, journalists and policy makers. The meeting was covered by the main media channels.

Media coverage in Poland was evaluated at the basis of a search that was carried out for the newspaper data base available without payment. It was possible to use archives of *Gazeta Wyborcza*, one of the most popular news-papers in Poland, for many years not having competitors on the Polish market of daily press. It is rather left oriented now. Other press archives (*Rzeczpospolita, Super Expres, Fakt* - every publisher has its own data base) were not available without payment.

For three months, i.e. September 1, 2006 to December 1, 2006, we searched the data base 0,5 for:

    1)INTERNET plus CHILD
    2)INTERNET plus JUVENILE
    3)INTERNET plus KIDS

The articles we had found were classified according to the criteria RISKS or OPPORTUNITIES.

- Ad 1) INTERNET + CHILD: The analysis for this combination was not useful because most of the articles were not relevant to the topic. Only 10 articles in the newspaper were related to the issue CHILD in the INTERNET (in Polish: CHILD in the NET). Only three of them were related to OPPORTUNITIES for children in the Internet. Six articles covered issues related to RISKS for children.

- Ad 2) INTERNET + JUVENILE: The search was done for the last 12 months. Four articles were found. All were related to RISKS and dangerous content for children.

- Ad 3) INTERNET + KIDS: This combination provided a richer basis:

Table 27 Findings from an analysis on media coverage as regards opportunities vs. risk contexts relating to Internet access by children in Poland

Time covered by analysis	Opportunities	Risks	Ratio of coverage on risks / opportunities
6 months (2006, June to November)	6	3	0,50
Last year (before December 1, 2006)	14	6	0,43
Last 2 years (before December 1, 2006)	29	14	0,48

Analysis: Lucyna Kirwil & Tomasz Łysakowski

One cannot make any deep conclusions from these findings because data are too small. However, they suggest that:

o The popular daily (rather left oriented) presents the Internet more often in terms of opportunities for children than in terms of risks for them.

o Ratio of risks to opportunities coverage in this daily is relatively stable over time.

o We cannot conclude from the ratio value that this daily, particularly important for creating public opinion in Poland, presents the Internet in terms of *media panic*. It rather popularizes the necessity to use the Internet and its benefits, while not neglecting the issue of Internet related risks.

As the content analysis showed, "opportunities" were related to new investments in schools (e.g. availability of computer rooms for all children at their leisure time, in order to increase the educational chances/literacy of children), i.e. content was related to wider social benefits or charity actions. The articles were often published in a context of activities undertaken by foundations or politicians. Other information showed benefits for individuals that indicated a positive role of the Internet for children. The examples are:

• A girl helped another girl who wanted to commit suicide thanks to communication in the chat-room;

• An anorectic girl met a boy in the Internet who helped her to overcome her anorexia.

„Risks" were reported in cases of being seduced by paedophiles (one out of five articles). Even more articles, one out of four, reported a negative impact of computer games on children's emotional and social development.

Within the analysed time period we did not find articles directly reporting about pornography in the Internet. However there were indirect references to these risks in the articles about campaigns counteracting pornography, paedophiles and other risks for children when they use the Internet without parents' monitoring. We might summarize this finding as: 60% of all articles about risks were intended to make parents more aware of risks that children may face at the Internet. The emotional tone of them was indicative of *warning* rather than *media panic*.

Significant events

The Internet is the pedophile's main hunting ground for children. The number of pornographic websites involving children has been growing year by year. The figures presented in December 2002 during the scientific conference *The Child and the Internet* reveal that 20 percent of junior high school kids use the Internet daily and 75 percent once, or a few times per week. Fifty-five percent of children between 13 and 15 log on to the Net mainly to chat. Forty-four percent of the junior high school kids polled admitted receiving e-mails with adult content.

According to a poll taken by the Nobody's Children Foundation, as many as 87 percent of the children questioned over the past year had given their e-mail address to a stranger, 64 percent had released their telephone number, 42 percent had revealed their place of residence, and 44 percent had sent their photo to a stranger. Over three-quarters of the children polled by the Foundation had received a proposal to meet face-to-face.

Over 50 percent of the children questioned had been lured into talk of a sexual character against their will. Such a talk involved proposals to meet (69 percent), a request to send a photo (66 percent), threats and vulgar words (32 percent) and the mailing of pornographic pictures (14 percent). Almost one-third of the children were scared by these conversations.

Warsaw Voice reported many cases of pedophilia detected by the police. Here is a description of the some of the cases to provide a wider context for thinking about pedophilia on-line.

In September 2002 the police cracked down on pedophiles from Warsaw's Central Train Station. The pedophiles had accosted young boys, mainly escapees from reformatories, to abuse them sexually in return for money, alcohol, food or computer games. The accused

were aged between 34 and 70, and included a businessman, a doctor, a manger in a large company, a psychologist in a reformatory, a researcher in a scientific institute and a priest. One of the most active offenders was a German citizen, aged 62, the owner of an amusement park in Gdynia. He used to pay children zl.40-50 for sexual intercourse, or offered free merry-go-round rides. Most of the accused are married, some also have children. The District Court ruled that the trial would be carried out behind closed doors "with an eye on public morals" and in order to prevent "violation of important private interests of both the accused and the victims." It is the largest case so far involving pedophiles to go before a Warsaw court. In 2002, reporters from *Wprost* weekly and Polsat television uncovered one of the largest pedophile networks in Europe. The journalists' investigation revealed that the pedophiles' clients included politicians, artists, lawyers, journalists, and television personalities. The pedophiles would trade children like goods. The children's parents would take some zl.1,000 for a child and the agent expected several thousand zlotys. Clients demanded fast delivery and very young children, under age 10. Over a few months, the reporters won the trust of pedophiles contacted through the Internet, attending face-to-face meetings, getting familiar with individual units of the net, and gathering evidence. The last part of the journalistic investigation was recorded by Polsat's cameras.

At the end of May 2003 another pedophile ring was uncovered, involving the abuse of boys who were members of the Polish Nightingales choir. In mid-June, Wojciech K., the director and conductor of the now-defunct choir Polskie Słowiki (Polish Nightingales) was charged with pedophilia and was sentenced to eight years in prison. After the term he would not be able to work with children and teenagers for six years. According to the court, from 1992-98 Wojciech K. had sexually abused three minors-members of the choir. He molested them on foreign and domestic tours made by the choir, and on several instances in Poznań. The court found Wojciech K. guilty of at least a dozen cases of sexual abuse in relation to each victim. Wojciech K. was apprehended in June last year, a few minutes before one of the choir's rehearsals, on the grounds of testimonies provided by former choir members. The lawsuit was brought to court in mid-January and the case was heard behind closed doors. Early in February, the defendant fell ill and was admitted to a Poznań clinic. During a two-month adjournment, newspapers reported that the conductor was HIV-positive. The police found numerous pornographic videos in the conductor's apartment, including those involving children. The parents of the boys could hardly believe what they heard, but the prosecutor stated the evidence of the crimes was indisputable.

Meanwhile, on July 28, the Prosecutor's office in Gdańsk launched another investigation involving pedophilia after a witness testified in a Gdańsk court against a priest who had supposedly molested a teenage boy. A series of articles has appeared in the press suggesting that the suspected priest is rev. Henryk Jankowski, a Gdańsk noble cleric known for his anticommunist activities. The District Prosecutor of Warsaw and the Central Investigation Office were then informed of the case. No official charges have been filed so far.

In a sting operation in 2006, the famous child therapists in Warsaw as a paedophile and he had a court hearing in January 2007. There was a lot of media coverage of this, with the media accusing him even before guilt was proved at the trial. He was a really high profile person, an authority on children development and social behaviour , who used to speak on the media.

The number of abuse cases has been rapidly increasing in Poland. In 2000, Polish courts convicted 455 people on such charges and a year later 525. In the first quarter of 2003 alone, the police referred 334 cases involving pedophilia to prosecutors. Over 80 percent of those convicted committed similar offenses after being released.

The number of abuses by peers on the Internet was noted recently. For instance in October 2006 in gymnasium in Gdańsk a 14-years old girl was sexually molested by 5 peers in a class when their teacher left the class for 20 minutes. The scene was filmed with a mobile phone by one of the molesters. The film was intended to be e-mailed to other users of mobile phones. Neither the victim nor other children witnessing the scene reported this event to teachers or parents. The girl commited suicide the next day.

1.5   Values

Possible explanations for the low level of media literacy and guidance for children among parents in Poland might be:

- o A. The collectivistic nature of the society that does not want to take the responsibility for the risks for their children and wants the state to take this responsibility – i.e. this is cultural values hypothesis. On the one hand the finding that Polish parents do not at all want to get more information on safer Internet use from the government or local authorities questions this hypothesis. However, this particular finding may result from very low trust in present government and a crisis of institutional authority in Poland. In the previous socio-economic formation of Communism somebody else, i.e. the state, was taking responsibility for safety of citizens and their younger generation.

- o B. Good manners and obedience to parental goals as an explanation of why the Internet is less often used in Poland in comparison to the Western European countries. Moves to independence and a need for achievement in the Polish younger generation is being blocked by parents demanding obedience and dependence – this is a parental goals hypothesis. Unfortunately, it does not seem valid when values measured in 1999 by EVS are analyzed. Deeper analysis is needed using the list of values tested in the UK. This list was longer than list used in Portugal and Poland.

- o C. Less emphasis on technology in the parents' generation. Parents do not learn how to use new technologies even if they own them and they do not support their children in making fuller use of new technologies, they do not develop regulating structures, norms etc. – this is the Hypothesis of Parental passivity or anxiety as regards new technologies. This hypothesis finds some confirmation in pan-European surveys showing that Poles do not use the opportunities that the Internet access provides them (source: *Korzystanie z Internetu i komputerów*. Komunikat z badań BS/59/2007. Warszawa, kwiecień 2007.CBOS; *Usage of the Internet and Computers*. Research communication BS/59/2007; Warsaw, April 2007, Research Center for Public Opinion; in Polish; see also "Utilization" in Table 21 of this manuscript).

Comparative risk perceptions

Poles perceive more risk to children in the physical world than online. In June 2003, 69% of a nationwide representative sample of parents were convinced that their children were at various risks in real world and 84% of parents estimated risk as higher than during the period childhood of their own generation. The perceived risk level is higher for urban (59%) than for rural regions (15%). The most often reported risks were: car/road accidents (59%), being bitten by a dog (36%), being drown (33%), being forced to beg (27%), physical abuse (25%) and committing suicide (24%). Potential risks included both (a) risks related to the low level of security in the physical world and aggression from external world, and (b) risks resulting from low resistance to the psychological threats of unemployment in family and self-aggression when the child is depressed (source: *Polacy o bezpieczeństwie dzieci*. Komunikat z badań BS/109/2003. Warszawa, czerwiec 2003, CBOS; *Poles about Their Children's Safety*. Research communication BS/109/2003. Warsaw, June 2003: Research Center for Public Opinion; in Polish]. Other risks included: maltreatment by family members, sexual abuse, murder, paedophile attack, alcohol or drug abuse, and being lost or kidnapped.

Another study, conducted by the same company in October 2004, shows that less parents were afraid of risks connected to the Internet use by their children. 32% of parents strongly agreed and 29% of parents somewhat agreed that their children might be at risk using the Internet (source: Młodzież i Internet: korzystanie i zagrożenia. Komunikat z badań BS/157/2004. Warszawa, październik 2004, CBOS; Youth and the Internet: Usage and Risks. Research Communication BS/159/2004. Warsaw, October 2004, Research Center for Public Opinion; in Polish). Among the parents whose children did not use the Internet at home there were more (31%) of those convinced that their children were not at risk using the Internet than among the parents whose children used the Internet at home (19%). Most of the parents who

had children that used the Internet (38%) were afraid of the sexual abuse for their children. The next risk was the threat of losing control over the social interactions of their own child (18%), the child receiving inappropriate information (6%; not sex-related), and aggression (2%).

4.5   Social contexts

Educational system (technology in schools, media education)

With both public and private support, Poland has taken steps to provide The Internet access for all universities and schools. Private donations through institutions such as the Soros Foundation, coupled with substantial government spending, have led to Internet access in all high schools in Poland and intermediate-level schools are expected to have access by the end of this year. One limitation on the Internet usage in schools, apart from high access fees, is a shortage of professional information technology training for teachers and others.

It is extremely important for the development of an Information Society to invest in people and in their acquisition of information technology and communication skills. The activities undertaken in this regard are related to the education reforms and school 'Internetization' projects: *Inter@klasa www.interkl@sa.pl, The Internet laboratory in each municipality, The Internet laboratory in each gymnasium.* Verification of the training centres recommended by the Ministry of National Education as providers of teachers training has been completed and tenders have been announced for equipping 934 gymnasium laboratories, 373 laboratories at general education secondary schools and 373 multimedia information centres at schools. The development of techniques for an Information Society enriches the methods of conveying knowledge, which may contribute largely to a greater appeal of the education process and improve its effectiveness. Thanks to new telecommunications systems a new form of education is undergoing a dynamic growth, namely, *remote learning.* The *Interkl@sa* programme utilises various financial means from the national budget, the European Union, international financial organisations, international bilateral co-operation programs, local self-governments, non-governmental organisations, private sponsors and pupils' parents. Public and private funds involved in the *Interkl@sa* programme are estimated initially at PLN 400 million. The programme has its own logo *Interkl@sa* which is reserved exclusively for its activities and undertakings. Under the program, in 1998-2000 the Ministry of National Education co-ordinated two projects: *The Internet Laboratory in Each Municipality* and *The Internet Laboratory in Each Gymnasium.* The effect of these projects consists of 5,800 laboratories, mainly at gymnasia, equipped with 10 multimedia computer stations within a LANs that have Internet access and basic software. The equipment delivered within the three years represents approx. 40% of all computers currently in place at schools. In addition, on February 10, 2000, Telekomunikacja Polska S.A. and the Ministry of National Education (MNE) signed an agreement to give preferred treatment of school computer laboratories. According to that agreement, TP S.A. offers to schools telephone line installation for one zloty and 600 free impulses to those schools which have computer laboratories complying with MNE standards. The MNE project on the Internet in schools is described on the webpage http://www.men.gov.pl. On June 16, 2000, the Minister of Telecommunications concluded an agreement on co-operation in implementing the Internet at Schools programme with the National Chamber of Commerce for Cable Communications in Zielona Góra, the Association of Cable TV Operators in Poland and the Chamber of Commerce in Lodz [www.catv.com.pl]. Within the next two years work will be carried out to prepare youth for independent use of computers and the Internet in solving problems, to prepare teachers for the creative use of computers in the teaching process and to turn schools into modern innovative centres which, thanks to their multimedia computer laboratories, could serve the development of local communities. By the end of 2001, the programme *The Internet Laboratory in Each Gymnasium* a system of mass teacher training and education in the use of information technology in teaching particular subjects was to be established, secondary school computerisation was to be developed, the use of computer and the Internet opportunities for the benefit of the local environment of schools and the European education to be promoted, as well as Polish and international programmes with important educational objectives are to

be furthered and the Government and the Parliament are to be made to adopt a *National Education Program for an Information Society.* A priority shared by all stages of work is to create equal opportunities for rural youth and the disabled. The development of information and communication technologies also has an enormous impact on the job market. Given economic restructuring, a large number of employees are facing the need to acquire new qualifications adapted to new market requirements. It is becoming increasingly important to support the development of lifelong education, as stipulated in the *National Strategy for Employment Growth and Human Resources Development, 2000-2006* and the *National Action Plan for Employment, 2000-2001,* and in the project *Strengthening the Lifelong Education System.* Global communication networks also allow for the development of new flexible forms of employment, *e.g.* telework. It is necessary to stimulate the growth of occupations utilising information and communication technologies. The basic issue requiring a solution is the registration of achievements, identification of IT occupations existing in the labour market and their introduction in the Classification of Occupations and Specialisation. Identification of IT occupations will represent the basis for initiating work on establishing qualification standards for these professions. Regardless of measures stimulating the development of employment in IT occupations it is necessary to increase the level of adult education in information technology and communication. Under the project *Strengthening the Lifelong Education System* financed from the Phare 2000 funds, the Ministry of Labour and Social Policy will develop modular vocational training programmes to meet labour market needs, including programmes in information technology and communications, which will be promoted widely on the education services market.

To illustrate the discrepancy between Poland and the other countries under the study in computer and the Internet access in the primary schools the comparison was made for 2002:

Table 28: Computer and the Internet Access at school in the Three Countries

and EU Average in 2002

Country	Number of pupils per one computer	Number of pupils per one computer with the Internet access
Poland	44,0	79,0
Portugal	17,0	36,3
UK	11,8	25,3
Average for EU states	13,2	32,9

Based on: Educacja informatyczna 2002. Raport dotyczący szkól publicznych Ministerstwa Edukacji Narodowej I Sportu. Wydział informatyzacji. Październik 2002, Warszawa [Report regarding public schools prepared by the Ministry of National Education and Athletics, Department of Informatization. October 2002, Warsaw; in Polish]. Selection: Lucyna Kirwil.

As an example of the increase in supplying schools with new technologies, in April 2007 the Ministry of Education published an order for equipment and installation of about 5886 Internet rooms in schools and delivery of the Internet Multimedia Information Centers (ICIM) in school libraries. The Ministry of National Education offers software for safe usage of the Internet by children at school and at home. One can subscribe the offered program *Benjamin.*

At present primary schools (involved for the last six years) and the two last grades of medium level schools (gymnasiums, involved for the last three years) provide lessons of informatics including computer and the Internet usage (1 lesson per week in small size groups). The internet usage might be chosen by teachers as a topic provided within more than one subject

and for a longer time. A wider and more systematic knowledge on computer sciences is offered at higher levels of education and in private schools.

Discussion on the need for a systematic media education in primary schools has been discussed for more than 10 years but until now there is no such exclusive subject in public primary and middle schools in Poland.

(ii) Portugal

2.1   The general context

In order to understand some of the figures presented until now, one must draw a broader picture of some structural features of Portuguese society.

During the last 50 years, Portuguese society has undertaken a modernization process at several levels. From economy to education, from technology and science to a general reconfiguration of the social structure, from industrial and services growth (and resulting agricultural decline) to urban intensification, emergency of new demographic patterns, and so forth. Together with these transformations, another change (perhaps more relevant for the present discussion) also took place: the formation of a new public sphere, related to the foundation of a new political cycle (after the collapse in the mid 70's of a totalitarian regime that lasted 40 years), that consequently drove to the creation of democratic institutions, free media and liberty of speech. The range of these transformations is too complex and diversified to be treated properly in just a few words.

The last two decades reiterate roughly several of the previous tendencies. In many ways, Portugal has become more similar to other European countries, especially after entering EU in 1986. However, in spite of all these enormous transformations and an obvious development, Portuguese society still has to carry the negative weight of some of the above structural features (Portugal still has one of the highest levels of relative poverty in the EU and also one of its lowest rates of productivity[32]) and has to deal with new ones (long term unemployment, social exclusion of minorities, etc.). One may say, in other words, that Portugal remains to some extent in a certain in-between position: although it has evident features of most modern countries, it still reproduces some of its pre-modern patterns of development, thus remaining paradoxically in a dual position (Machado e Costa, 1998; Almeida, Costa e Machado, 1994, 2006; Cardoso *et al.*, 2005).

Some indicators are quite eloquent on this matter. Consider, for instance, two major aspects: education and occupational skills.

In 1960 33% of the population was illiterate whereas according to the 2001 census only 9% of the population had no literate skills (see Cardoso et al., 2005). Conversely, the highest level of education corroborates this change: the number of higher education students has grown more than thirteen times from early 60's to late 90's (see Balsa et al., 2001). Most of this exponential growth is explained by the creation of private universities and polytechnic schools during the 80's and 90's, thus offering more undergraduate and postgraduate courses in most of its regions.

There is also an important difference between social origins of higher education students in the 60s (mostly from upper classes) compared with those in the 80s and 90s (more heterogeneous in their social origins. See Balsa et al., 2001). Nevertheless, prestigious schools were preferably selected by students with more favourable cultural and economic backgrounds (what French sociologist Pierre Bourdieu describe as "cultural and economic capital"). In any case, considering the previous starting point, one must admit an obvious "democratization" of higher education (or at least, a noticeable "massification"). Another interesting data is the fact that the presence of girls in universities has grown tremendously. In present day, on average, girls represent approximately 60% of higher education students (Balsa et al., 2001; Cardoso et al., 2005).

Working skills and professions structure also reflect previous discrepancies and contradictions. There is a clear growth of "intellectuals and scientific professions" from the 1960 census to the 2001 one (respectively, 2,8% and 8,6%). Also, in 1960 there were 43,6% of agriculture and related labour and in 2001 only 4,1%. On the other hand, "manual workers, craftsman and operators" represent 31% of working labourforce in 1960 while their weight remains practically the same 40 years later (30,3%). To sum up, if to some extent we may notice some change toward an increase in professions that involve higher qualification levels,

on the other hand professions requiring lower skills maintain their economic importance (except for the decline of agriculture-related jobs).

This conclusion is substantiate by the fact that most agricultural decline is not replaced by a corresponding growth in technological sophisticated industries and services, but depends instead and predominantly on a traditional transformative sector (construction, textile, metallurgy, food industry, etc.), low skill "personal services" sector (like domestic and personal services in restaurants, hotels, etc.) and "social services" sector (which includes public administration and police forces). The only exception to this portray is that one may detect in "services related to production", which has to do with an intensification of banking, insurance and real-estate (see Cardoso *et al.*, 2005: 39). Another exception to the rule above comes from some high technology businesses, which invest in high quality products and services, that have grown significantly in the past decades (in spite of being marginal to the national economy).

As said before, maybe the most relevant transformations to comprehend changes related to attitudes and values in Portuguese society have to do with what we have called the formation of a new "public sphere". For the past decades, Portugal has moved from a (practically) "closed" society to a (generally) "open" one. Qualitative consequences of this transformation are probably more significant than their quantitative ones (measured in terms of its impact on economic and social structure).

This "openness" is related to profound changes in the availability of cultural goods, linked to an increase in production and distribution of all sorts of products and services, like free media[33] (both public and private[34]), remarkable growth in cultural events and their accessibility, increasing participation in civic activities and so on. However, once again, structural features (like a persistent level of considerable illiteracy) explain the rather low levels of cultural consumption (for instance, low reading habits[35]). This last feature explains, at least partially, the low penetration of Internet (in spite of its considerable growth in the last years), and why most people are still reluctant to use it, particularly among adults with low education levels and elderly people[36]. This last remark illustrates a substantial generational gap in ICT use in Portuguese society (see Cardoso *et al.*, 2005: 144, 176-177).

Associated with this generation gap, it may be also stressed that in Portugal the mother is the family reference at home and there is an accentuated decrease of the number of children in the household (30% has no siblings and 46% has just one sibling). Mothers as housewives are exceptions in a country where 73% of mothers of -14 children are professionally active and part-time employment is rare. In a picture that is also changing, technological and educational skills are still higher among fathers than mothers.

One of the most noticeable and significant changes has to do with the role played by Portuguese women. From civic rights to job opportunities[37], for the past decades women protagonism increased tremendously in a vast array of roles. Yet, women remain underrepresented in most significant professions (i.e. managerial, professional, technicians) and have lower wages than man doing the same job, just to illustrate this issue with two obvious examples. Even so, Portugal has the highest rate of working women in southern Europe countries (see Torres, Mendes e Lapa, 2006: 128).

To some extent some of these structural inequalities appear to be unchangeable in Portuguese society. Of course, as mentioned above in a perhaps oversimplified way, some things do have changed and it is inevitable to agree that most of these changes contribute to create a more desirable and even fair society. Still one is far from being in the "ideal" (almost utopic) scenario proclaimed by several politicians and policy makers.

During the last few years the government has defended that public policies on the development of new technologies will have a beneficial impact at all levels, as pointed; the government even uses recurrently a key expression to characterise such investment: 'the technological shock'. Several programmes are being draft but there is a lack of information on their accomplishments and user impact. Attention to risks associated with new technologies was neglected until recently and this might be the reason why there is a lack of risks in the studies found up to this date and included on the Data Repository.

This lack of research on Internet safety cover issues such as parental and care-takers' perceptions of safety and risk behaviour, and children's and young people's attitudes and behaviours towards safety and risk (there is an absence of studies considering exposure to illegal or harmful contents, sexual identities, harassment and bullying, vulnerability to paedophiles, gambling, illegal downloading, etc.). Research on parental mediation and their considerations on Internet is also absent, in spite of the generational technological gap. Conclusions that appointed to public policies duties and absence of regulation are also again out of the research agenda. There is little information about gender and age differences.

Such data profile possibly indicates that academic research follows the country's positive social perceptions in relation to the Internet, as we have previously explained. It is interesting to note the absence of government commissioned research on safety and risk.

2.2   Media Environment

Diffusion of ICT infrastructure

Different criteria are used by national and international sources, which may explain some dissonant results:

According to ANACOM, in 2006 households with Internet raised from 35,3% to 40%. However, Portugal still has one of the lowest levels of broadband penetration (35% against 52% in UE)[38]. According to INE (National Institute of Statistics), the Internet connection through high-speed broadband, registered a fast growing rate between 2003 and 2006 (about 47.4% of annual growth rate). INE points also that in the first trimester of 2006, 35.2% of the Portuguese households had Internet access and 45.4% had at least one computer. The proportion of households with Internet connection has raised about 25.2% since 2002.

However, a study by OCDE published in October 2006 referred that in June 2006 only 12,9% of the Portuguese population using Internet had a high-speed broadband connection (only Greece and Ireland had a lower performance), due to the high price of high-speed broadband and the low use of computers.

The use of PC and Internet is significantly higher among young people between 16-24 years (82,7% and 75,2% respectively), with values that are closer with youth from other European countries. ICTs' use also varies according to school level: the proportion of PC and Internet users is higher among Higher Education (91% and 86.9%, respectively), and high school students (86.9% and 80.3%). When analysing the professional status, students are still the group with higher levels of PC and Internet penetration (99,4% and 96,3%), followed by employees (half use PCs and 41,7% use the Internet).

About 61,5% of Internet users referred that in the first trimester of 2006 their PC was protected by an antivirus, while 44,7% mentioned the existence of a firewall. These were the only security measures mentioned by the respondents.

Media industry: Prices, content, search engine results

In Portugal there are about 30 Internet Service Providers. Recent private Internet operators are introducing cheaper access, but Portugal Telecom (PT) has a dominant position in the Portuguese market, through two ISP: NETCABO.PT and SAPO.PT

All the ISP have an e-mail address for reporting abuse situations (abuse@ISP.pt). According to SAPO (one of the PT ISPs), among the 200 thousand questions per month, just about one hundred are associated with safety issues (90% around virus protection or phishing).

Associated with the Carnegie Mellon University (CMU), SAPO.PT provides the clients with anti-spam and anti-phishing tools. It is also planning to create a special site about safety issues. SAPO is also one of the most popular content provider used by young people, after Google.pt. Associated with the Department of Education and the Department of Culture, SAPO has been providing activities around media literacy involving schools, public broadcasting service, other media and industries. Microsoft is also associated with the

Department of Education, allocating SeguraNet, the site oriented to schools, parents and students, and it is a partner of the Portuguese Awareness Node.

There are three mobile phones companies operating in Portugal: TMN (PT group), CLIX and Vodafone Portugal. This one, part of the international group, has been considering issues of child protection since the launch of WAP portal which includes erotic contents, in 2002. It is possible to avoid children's access to these contents, if their parents demand, but until the moment the Company has received only 300 hundred blocking requests. In October 2006, Vodafone Portugal became partner of IWF, and cancels the access to illegal and harmful sites identified by IWF. According to the Company, Vodafone Portugal tried to promote a shared Code of Practice around children protection. None of the three companies operating in Portugal signed the European Framework for Safer Mobile Use by Younger Teenagers and Children, promoted by EU Mobile Phone industry (February 2007).

The mobile phones Companies have special prices for SMS, a favourite mean of communication between young people. TMN and OPTIMUS offered promotional packages of SMS from 5 euros (60 SMS). OPTIMUS had a package of 250 SMS for just 10 euros within OPTIMUS.

2.3   ICT Regulation

Legal Framework

Legislation on new technologies exists since 1985 regulating issues of safety, copyright, e-commerce, etc. contemplating the protection of citizens (children, young people and adults) and may not differ from other EU countries once it is based on European policies. In 2005, the government launched a Technological Plan, with 112 measures oriented to upgrade the Portuguese technological gap in the European context. In these measures, regulatory procedures in order to increase safety on the Internet have not been considered. The political discourse about this theme is based on words like progress, evolution, information society of the future, without any reference to risks or protection measures. Internet risks and protection measures are really out of the public agenda.

Portugal is one of the few EU countries without an hotline for presenting illegal or harmful contents. This hotline is supposed to start in July 2007, as part of the Portuguese Awareness Node. There is some public and political concern, but no organized consideration has been given to this matter. In general, the issue of Internet safety has not been strongly highlighted. The focus, at least at institutional level, has been to promote the pedagogical advantages of new technologies. However, the generalised access to ICT resources raises concerns about usage of the Internet and preventive measures are required.

On the other hand, Portugal does not have specific legislation concerning the issues of safety and protection of children's privacy online. According to a study published in April 2006 and conducted by the International Centre for Missing & Exploited Children (ICMEC), Portugal only fulfils two of the five criteria analysed: legislation specific to child pornography and computer facilitated offences. Nevertheless, it can be inferred from Article 172 of the Portuguese Penal Law that the expression "by any means" allows a Prosecutor to view information and communication technologies as a means to commit the crime of circulating images, sounds, or movies clearly showing minors younger than 14 years old engaged in sexual acts. Portugal doesn't provide a definition of child-pornography, doesn't criminalize possession of child pornography, regardless of the intent to distribute and doesn't require Internet Service Providers (ISP) to report suspected child pornography to law enforcement or to some other mandated agency.

The main regulatory agency is ICP – ANACOM (National Authority for Communications). It was founded in 2002 to support the government in the coordination and planning of public communications. It disseminates and monitors the norms regulating safety and e-commerce, telecommunications operators, and all issues concerning telecommunication networks.

Nonetheless, it is assumed by our contact that monitoring has little public and media visibility and it might be argued that the actions implement have little relevance and efficiency.

As the national regulatory authority for electronic communications, ANACOM has been consulted by the European Union a number of times for its comments on the Internet Action Plan. Aware of the extreme and current relevance of the subject and of a social responsibility that clearly imposes the involvement of all in this concerted action at European level, ANACOM is currently involved in an awareness action on the conception and promotion of Portuguese projects in this area, particularly in the area of hotlines to report illegal Internet content and of public awareness centres on the issue of Internet safety. Just like OFCOM, the Portuguese regulator could have some public policy objectives also, one of which is media literacy.

In 2005, the Provedor de Justiça (Justice Ombudsman) concerned with mobile phone's use by children, worked close to several ministerial offices, ICP-ANACOM, and telecommunication operators to promote a campaign for children's safe use of the mobile phone, oriented to awareness on Internet benefits and risks. The Provedor de Justiça also considered the need of advise on health risks due to the use of mobile phones, targeting children, parents and teachers allowing for informed decisions as consumers and educators. Until now there are no concrete measures following the Provedor's intervention and in the main newspapers the coverage of this appeal was insignificant.

Relevant institutions (NGOs, ISPs)

There is a relatively low level of attention to public policies in the Portuguese civil society, as comparative European studies has shown. In this context, it is not a surprise that the influence of NGOs associated with children may be considered irrelevant if one considers their small number of references in child related news on the main newspapers, for instance. The brief descriptions show a low level of attention to Internet risks and possibilities until recently:

- IAC (Instituto de Apoio à Criança) appeared in 1983 and it is the main NGO reference for children rights in Portugal. Led by a former First Lady, it mainly involves Justice, Education, and Psychology experts. One of their most visible actions is a SOS phone service, for children in risk and danger. IAC has promoted campaigns against child abuse and kidnapping as a member of European networks such as CHILDOSCOPE. IAC has a clipping service of news items on children and is partner in the research project Children and Youth in the News. In general, IAC has presented a relatively low profile dealing with the media and starts to have a more pro-active approach to the news media in the child rights agenda. The inclusion of further contents concerning the Internet and Risk Issues is presented in the Work Plan for 2007[39].

- CONFAP was founded in 1985 to congregate, coordinate, defend and represent, at a national level, the parents' movements in Portugal and it is frequently present in the news about education and children issues. Through a partnership with www.miudossegurosnanet.pt (see below), local parents' associations had the opportunity to learn about Safe Internet. However, when contacted by the end of 2006, it was not aware of the Internet Safety Day and this subject was not a 2007 priority.

- APAV (www.apav.pt): The Portuguese Association for Victims' Support was created in 1990 to promote and contribute to the awareness, protection, and support of citizen victims of a variety of illegalities. Recently it has added to its agenda awareness campaigns for electronic networks' risks (Internet and mobile phone), having developed a community support booklet. Until this date, however, there are no significant requests for support.

- MiudosSegurosNa.Net (Safe Kids online) is a website created in 2003 by Tito de Morais, a former media industry worker. Written in an easy language, its motto is "Minimise risks, Maximise benefits". The site aims to help families, schools and communities to promote ethic behaviour, as well as responsible and safe use of new

technologies by children and young people. The mentor participated in more than 70 awareness campaigns and training throughout the country since 2004. Its newsletter had around 3300 subscribers by the end of 2006 and jumped to 4000 after the 2007 Safer Internet Day. The most common questions placed by parents are related to filters: "most parents consider children's online safety as technological problem which, as such, must be solved through technology. Due to this, the site presents a technological approach besides an approach to parents, education, and legal matters. In general, parents look for a miraculous solution", he comments. Compared with previous years, Tito de Morais stressed that the media coverage on the Safer Internet Day was much more visible in 2007.

Portuguese Awareness Node: In September 2006, Portugal submitted an application to the Safer Internet Plus Programme (Awareness Node and Hotlines), lead by UMIC (a top agency from the Portuguese Ministry of Science and Technology) and involving also the Ministry of Education agency for Internet in Education (CRIE), Microsoft and the FCCN (Foundation for National Computer Science), this last focused on Hotlines policy. One of their aims is promoting links to private companies and civil services. In the 2007 Safer Internet Day, the Press Release sent by EU Kids Online had a paragraph written by UMIC and they were asked by radios about the hotline and safety issues. The public presentation of the Portuguese Awareness Node is announced to happen in June 2007, launching the hotline.

2.4   Public discourse

Awareness campaigns

There is no tradition of awareness campaigns about Internet safety, apart those promoted by the Department of Education in connection with five Universities (SeguraNet Program, the previous Awareness Node which was allocated in CRIE/Education), mainly oriented to students and teachers and invisible in terms of public opinion.

These campaigns presented a dominant negative tone: "*Don´t do this*…" and were oriented to two age groups: (7-11) and older students (12-16) Their evaluation showed that adolescents didn't change their risk attitudes and behaviour. It was considered that the campaigns were not enough oriented to different age targets.

The awareness-raising aspects of the Internet are very important and children and young people could have a relevant role among their parents and relatives. The EU should include this in its planning on life-long learning, for example *eEurope* and *eLearning*. Portugal had a pilot programme of minibuses stocked with computers visiting schools so that parents can be taught Internet use by their children. Public libraries have also public sessions on computers and Internet use, and opportunities such as using Skype for communicating could be promoted in a country with a strong diaspora. However, these opportunities and programs are relatively ignored.

Media coverage

A research among the two main national broadsheet newspapers in 2000 (J-D) and extended to four national newspapers in 2005 showed that risks associated with ICT (Internet and mobile phones) were almost absent from the headlines associated with children and those items were mostly international (Ponte, 2005)[40]. Until very recently, the coverage of children and young people as on-line users in the country in these news media was a non-issue, from the perspective both of their potentialities and risks.

Also in 2005, besides that four main national newspapers and based on the IAC press-clipping[41], a search on children, Internet and new technologies found 119 items in the whole year (42% developed news and 27,7% short news), mostly from regional and local newspapers, and magazines oriented to the families. Although the risk discourse was the dominant, 23,5% of the news pointed solutions for safety problems, 10% presented a balanced perspective of Internet use, involving risks and opportunities, and only 6,7% focused on Internet benefits. Inadequate contents affecting social and emotional behaviours were the

more referred risks, followed by harmful effects on learning, concentration, health and promoting addiction. The global approach was more pessimist than optimist (52,1% against 23,7%). Again, the majority of the items (58%) came from the outside, namely from the US and the UK, sometimes mixed with national frames.

Following the UK and Poland search in the last months of 2006, in the IAC press-clipping, just 32 items were found from September 1 to December 31. Despite the small amount of items, it is possible to identify discourse trends, according to the approach (risks or opportunities):

September registered 4 news, 3 of them focused on the impact of the digital inclusion Centres working in different parts of Portugal; the other one presented public policy from Argentina's government: "Cyber cafés for social excluded children". Opportunities dominated the discourse in this month.

October registered 6 news, centred in how Internet could be a dangerous public space, referring security measures and advising parents to pay attention on their children's Internet behaviour. A big story was published, based on real cases, about Portuguese teenagers' experiences with Internet, specially related with meeting offline persons that they met in online social networks. Just one item presented a positive perspective on how Internet may be an educational space for children (in this case, the creation of a website related with animals protection, allowing children to learn how to treat animals correctly).

November and December's items (12 and 7, respectively) were centred on Internet risks. Despite of not presenting Internet in terms of media panic, the most appellative (imperative) headlines came from magazines oriented to parents: "Pay attention to Internet dangers"; "Control Internet Access".

Table 29

Month	Opportunities	Risks
September	5	0
October	2	4
November	2	10
December	2	7
TOTAL	11	21

Internet was presented in the majority of news as a dangerous space, where rules are needed. Risks were related with paedophiles and sexual abuses, illustrated by international stories. These articles were specially written for parents and mainly published in magazines oriented to families. Advice was normally attached to the main text, listing a number of safety rules, in order to protect children (don't give personal information, establish Internet rules access, and so on…). On the other hand, opportunities were linked to public policies, such as the creation of digital inclusion centres across the country in order to minimize the digital exclusion and to improve their digital literacy. One of the articles pointed the positive contribute of Internet to the sexual education, once this is still a delicate issue and it is not yet part of the scholar curriculum. The article suggests that Internet could work as privileged space for giving information, advices, and so on.

Media attention (in press, radio and TV news and forums) rose up in recent times and maybe the strong reaction from audiences to the 2007 Safer Internet Day in radio and TV (with lay people participating in TV and radio forums and sharing their insecurities on how to deal with children and Internet) has contributed to a higher attention. A radio forum on Safer Internet Day (2 hours in air) concluded how parents tried to control their children's access, with time limits during the week and a freer access at weekends, once they have more time to try to control what children do. However, parents considered the task as very difficult, once they don't feel comfortable with Internet and new technologies. Experts and opinion makers on children issues consider also that parents are avid for advice and orientation.

Significant events

Until recently it was difficult to identify an event that could have contributed to place Internet issues concerning risks or opportunities in the public agenda. Events such as sexual harassments involving teenagers in personal contacts with people they met in Internet or production of dangerous "cocktails" following instructions available in websites came sometimes in more popular newspapers or in the TV news, but not in an interactive way. The same happened to issues such as bullying involving mobile phones.

Recently, the kidnapping of the young child Madeleine McCann in Algarve received a huge amount of media attention. After the main focus on the event, the need of continuing the story may have contributed to put in the agenda safety questions around circulation of young children's photos in the Internet, frequently placed by their parents and sent to their friends. In this case, involving a young child, Internet as a public space was the broader frame to introduce risk attitudes from older children and adolescents concerning their own images in social networking sites. Several radio and TV programs put the topic of Internet safety in their agenda, dominated by a dominant discourse of fear.

2.5   Values

General values

According to several social scientists, education may be considered as the most independent variable from the Portuguese social system. In the 2001 Census, 53% of the parents of under 14 had less than 9 years of schooling and those with a Degree were 9%. There is a relatively fast progression in parents' schooling rates: the younger the children the higher their schooling level.

The low level of media literacy and guidance for children among parents may be connected with the low level of literacy in general and achieved schooling. According to Eurobarometer 2006, most of the Portuguese adults with children and Internet users considers themselves in the lowest levels of competency, as beginners or the next level (85%, for 66% in Poland and 63% in the UK). Reflecting also a conformist perspective on the relationship with new technologies and professional challenges, almost ¾ of the adults considers their literacy level enough for their professional activities (Cardoso et al., 2005). Risk society and its challenges in professional activities as thought by Beck (1992) is a far reference for these adults.

Portuguese public policies need to focus both on the risks and on the challenges, since many children, some young people and some adults even had not yet used the Internet, or had only done it a few times. Part of the Portuguese population still do not have any computer link to the Internet at home. Using Internet at school or in other public places is a good way to bridge the common situation of digital divide.

In relation to the exercise of citizenship, through the new technologies, though few Portuguese people actually support or actively engage on human rights, nature protection, fight against poverty, gender equality, and child protection campaigns (3.6%), this participation is higher among those who use the Internet (7%). The same occurs in relation to petitions and complaint or protest letters, a difference of 8.7% in favour of Internet users who seem to have a greater believe that their actions might influence political decisions and world events (self-efficacy), as shown by Cardoso et al (2005). Access and use of the Internet seems to facilitate civic participation, an issue that needs to be further addressed – why is that the case? This also needs to be further explored in relation to young people's online citizenship; one of the studies in the Portuguese Data Repository delves precisely with issues of political identities through online cultural production.

Child-related values and attitudes

There is one study showing some expected findings for a South European country where traditional family values tend to be stress. A recent survey on Labor (Inquérito ao Trabalho 2005) showed that 83,7% of the Portuguese workers with children or other dependents in their households do not want to change their professional life in order to have more time to take care of them. This trend goes against the dominant in other European countries.

Comparative risk perceptions

Until recently, Internet use at home seemed to be considered as being safer by virtue of being accessed in a domestic space. Research on parental perceptions of Internet access and use by their children is now starting, after the identification of their absence in the data repository.

Research on news media items involving children in 2000 and 2005 showed a growing presence of children. They are in the news mainly as victims of different risk situations (from accidents to social situations such as carelessness, sexual violence, poverty and so, including juvenile delinquency), followed by Education as the second topic. However, risks associated with ICT were almost absent in the news. Less present were items concerning children and young people cultures and competencies online and the possibilities they opened.

2.5   Social contexts

Educational system (technology in schools, media education)

All the Portuguese schools (basic and secondary schools, 12 years involved) are equipped with at least one computer (GIASE/Ministry of Education, 2006). In 2006-2007, the number of students per computer at public schools were 10,6 and 6,3 in private schools. The Internet access per student was respectively 12,8 and 7,6. In 2001, there was 38,9 students per computer with Internet in the public schools and 17,9 in the private.

Concerning public schools, these values show a deep change when compared with the recent situation. In 2004-2005, from a total of 8733 schools, there was 9043 RDIS connections and 618 broadband; in 2006-2007, from a total of 7068 schools[42], there are 7219 connections all by broadband.

According to CRIE (2007), before 2004, schools received equipment and were supposed to use it but an oriented policy concerning the challenges and risks of ICT started only with the Seguranet Program (2004-2006), as part of the EU Safer Internet Program. It was the first Awareness Node in Portugal.

SeguraNet is placed at the Department of Education Program and aimed to highlight both the benefits and the dangers of online technologies to pupils/students, parents and educators. It came after Programme Nonio, the ICT programme for Education, coordinated a national network of 19 ICT Competence Centres to support the pedagogical integration of ICT in schools. Four of these ICT Competence Centres were partners in SeguraNet, located in different parts of the country to promote dissemination in the different regions:

- Partner 1- Nonio Competence Centre of the Minho University has supported many school projects in the north of the country. The main contribution for this project consisted on evaluation-validation of the products resulting from the project in schools and the evaluation of the awareness campaign.
- Partner 2 - Nonio Competence Centre of Évora University has supported many school projects in the south of the country. The main contribution for this project consisted on research of information related to the challenges and risks of Internet for children/youngsters (they have developed previous work in the area of Internet safety), developing pedagogical activities for pupils/students on the benefits and risks of Internet.
- Partner 3- Nonio Competence Centre of Educom is an association of teachers of all school levels (basic, secondary and higher education), researchers and educators that promoted the use and dissemination of telematics as an educational resource.

> They were based at the University of Algarve (south) and they were partners in Educaunet (one of the Safer Internet projects).

- Partner 4 - The Nonio Competence Centre of the University of Aveiro has supported many school projects in the centre of the country. The main contribution for this project consisted on the production of contents and dissemination.

According to CRIE, there is a gap between parents and teachers concerning the valuation of ICT in the school curricula. While in general families trust in the use of technologies by children and considers it positive, at schools teachers are more sensitive to the risk discourse, present it to avoid ICT and Internet use in their classes and delegate safety issues on Internet to the ICT classes. However, the ICT curriculum is mainly focused on technical skills and safety protection (anti-virus), so there is not enough critical discussion on safe uses of Internet at schools.

Media literacy or media education is present in the national curricula crosses different subjects but it is recognised as unclear in their aims, namely concerning Internet. Social networking and other Internet uses children do are not considered as subject of discussion. Besides the formal subjects, other curricular orientations are generic, such as "civic formation" or "project work", where Internet could have a relevant place (and in some schools it has). "Everything is related with Education, teachers training, recurrent uses that should be avoid (plagiarism, illegal download…), these critical issues goes further than technology", considers CRIE.

Based on the evaluation of SeguraNet I, a new phase started in February 2007, avoiding a too much top-down orientation in schools and including more students as monitors and disseminators of a safer Internet uses. School teams composed by groups of students and a teacher may promote safety practices and other activities in their schools, achieving points and receiving a credential from CRIE for their Good Practices. SeguraNet II aims to achieve a better balance between the positive image of Internet among students and parents, on one hand, and the need of safe uses, on the other; campaigns are redefined in order to replace the "danger" and "forbidden" by more positive and informational orientations. As a general policy, CRIE avoids to present straight orientations to schools, considering that each one should decide what to do or not in this matter.

Peers and Social Activities (participation, leisure activities, clubs, friends…)

The information on peers and their social activities, like participation in associations and other leisure activities, is not very abundant in what regards to children. Data on children are either absent or presented in age groups that include not only children but also teenagers and young adults[43].

Besides research on youth cultural practices[44], what we have, at a national level, is mostly information on the kind of initiatives and support given by Portuguese government to children and youth activities.

In the specific area of leisure and associations one may notice a general concern from Portuguese government, especially in what regards its State Secretary of Youth and Sports, to regulate and support local youth associations (through their official recognition and registration in RNAJ – National Inventory of Youth Associations).

Apart from official data on formal association and other structured leisure activities, and also some general studies on youth practices, one must acknowledge that further research is needed at individual (or group, but not necessarily organized in a official way) and informal levels, mainly in what regards to children as main research subject.

In what concerns ICT, it is important to mention several initiatives carried out by public organizations in this area, particularly by FDTI (Foundation for the Development of Information Technologies):

Certification of ICT Skills (CBTI – Basic Skills on IT);

- *Inforjovem* (national plan to implement and divulge access to IT for youth);
- *Vacations with IT Programme*, an initiative of FDTI, regarding IT uses during mid term and summer school vacations, destined to children 8 to 14 years old.
- *Vacations and weekends with Ecology and Multimedia* – an initiative as well of FDTI with Quercus (National Association for Nature Preservation), also intended for children 8 to 14 years old, with a goal to both explore IT use and develop ecological awareness.
- *Workshops of Knowledge* – a joint venture of FDTI and Portugal Telecom (through its ISP Sapo), which intends to promote a national competition to select "10 Schools of the Future". This initiative has captivated more than 6600 students and 678 teachers from all around the country. The 10 best schools will win the title of "School of the Future" and will dispute, in the final phase of this contest, the possibility to participate in an ICT educational experience in the United States.

Besides these programmes and initiatives, there is also an investment in public access to ICT, namely with the implementation of a free national network of broadband access points, complete Internet coverage of first and second grade public schools, and other public services[45]. Still, one must note that most of the above activities are not entirely free[46], which obviously excludes children from low income families. Nevertheless, all these initiatives aim hopefully to solve ICT access inequalities and increase Internet use and literacy.

If this purpose is actually achieved, it is something that needs to be further researched in the future. So far, we do not have conclusive data on actual use of these structures and programmes, and so one must remain somewhat sceptical of their real impact on Portuguese children ICT using abilities and habits.

(iii) United Kingdom

3.1   The general context

To provide a very long term context, the particular British experience as the first industrialised nation was for many working people a very harsh one. Marx could write about how the laws were shaped under early capitalism drawing on the British case. But this also meant that there was long tradition of resistance to this in the form of a socialist movement and the emergence of trade unions. It also meant that there was long reformist tradition searching for evidence of social problems and social issues, e.g. trying to measure poverty in the UK in the late 19th Century before was considered in many other countries. Hence, we have a research tradition, and even an academic discipline called 'Social Administration', which has collected various statistics for many years. NGOs campaign for reforms also contribute to this tradition of research (one of the highest profile ones for commissioning research being the Joseph Rowntree Foundation).

Partly emerging from the socialist tradition noted above, ideas and campaigns for more state intervention existed before the Second World War, but many of our institutions such as the National Health Service, National Insurance, free education - i.e. the social democratic welfare state – emerged with the Labour Government after the war, and these are so established that no political party can think of removing them.

However, there was a break with conventional politics from the late 1970s with the arrival of Margaret Thatcher as Prime Minister. This strand within the Conservative party embraced market liberalism and emphasised individual responsibility, reducing state proscriptions and increasing the responsibility on parents. Even after the many years of Labour government under Tony Blair, the debates about the boundaries of the role of the state continue from this earlier era. This is actually complex because Conservative critics talk about the 'Nanny State' dictating much what people should do. In many ways, especially in the field of education, health and law and order, the Labour Government has been very interventionist, creating many new rules, targets and guidelines, and it is unclear whether how much less a Conservative Government would have done. Certainly if anything 'goes wrong' (e.g. someone dies because some state or local government body did not fully do their job) there are always calls that the state or the local authority or the social services should have intervened more. This is the context in which we need to appreciate state concerns about the risks of the Internet, but also state efforts and funding to promote Internet access (for children).

Another part of the British context is the history of migration. We have another long tradition of immigration, partly because of the Empire, partly because of industrialisation (e.g. mining for coal in the 19th Century especially attracted many people from all over Europe) and partly because of religious tolerance (which brought French protestants and Jews from Germany and Eastern Europe to the UK at different points in time). Despite this for many decades we nevertheless had more net emigration because so many British went abroad to live in other parts of the Empire and later the Commonwealth (e.g. especially to places like Australia and Canada). But from the 1960s we had a substantial immigration from the Commonwealth in large part to fulfil labour shortages in the UK, and the same has more recently been true when the EU was expanded. With this immigration we have had inevitable issues about 'race', and in the last few years, as in many parts of Europe, this has been most focused on the Muslim ethnic groups. However, the wider policy within the UK has for many years been one of 'multiculturalism' (rather than the more 'assimilation' policies of, for example, France). In other words, the contributions from diverse ethnic communities are often celebrated, as in the Notting Hill carnival, the largest street festival in Europe. There are a number of implications of this. One is that, and we would need to test this, this approach may make the British more sensitive about what might be offensive, about the different values that other groups may have (although some of the media coverage might sometimes cast doubt on this hypotheses). One of our NGOs, the Internet Watch Foundation, was supposed to address the issue of race hate sites on the Internet – but it gets very few calls about this topic. Another observation is that ICTs in general and the Internet in particular, is used by ethnic minorities to keep in touch

with social networks in the country of emigration. In fact, some more temporary foreign workers use ICTs such as the mobile phone to manage 'remote parenting' of children left behind.

There are a few final contextual factors that might be worth mentioning (and documenting in comparative perspective).

We have the highest number of single parent families in Europe, more divorces than many other countries, more children born outside of marriage and more reconstructed families. We have fewer adult children living near parents compared to many European countries. Although we need to test this further, we feel that bedroom culture (children have their own rooms) is more developed in the UK than some other countries. There is also a perceived crisis in youth culture in Britain, with knife crime, and the issuing of many ASBOs (Anti-Social Behaviour Orders – an official warning usually to youth from the police).

3.2   Media Environment

The close relations in the UK between industry, NGOs, the Government and academics helped establish first mobile phone operators' code in Europe. The EC's subsequent Mobile consultation drew on the example of the UK.

Industry is also playing a key role in raising awareness – examples include Microsoft's provision of safety awareness training materials to every secondary school, Yahoo's new online safety information, BEBO's recently launched safety site, etc. There is some collaboration and exchange of personnel across the NGO and industry organisations, aiding a common approach.

While the children's charities are unambiguously committed to children's safety, their struggle is to prioritise issues of online safety over other threats to children; research is needed here to help them gauge the relative threat to children of online vs. offline risks. This is also important insofar as, increasingly, they seek to provide information and support to children via the Internet (e.g. Childline, a hotline for children to report abuse, has had great success in providing email reporting channels; it also finds that children increasingly report abuse via the mobile phone – for these reasons, children's safety and privacy from parents/family as well as potentially abusive strangers is an important consideration).

For industry (and for a Government concerned to promote UK competitiveness in the international marketplace), there is a tension between addressing online risks to children and creating a climate of fear or anxiety that will reduce Internet/mobile take up and adoption (especially for innovative new products and services e.g. 3G, GIS, etc). Thus those concerned with Corporate Social Responsibility do not always gain the attention or support they might desire within their own organisations.

In designing campaigns or codes of practice, there is considerable demand for new research. There is a willingness to use information from other parts of Europe and beyond (much research cited in the UK is American). For example, a Dutch study of fakers showed how there are common themes across countries and so researchers in different countries can draw on each others' experiences. (However, some of the actual campaigns in the Netherlands would not be allowed here, e.g. suggesting Cybersex is safe. In fact, the images shown in the adverts associated with this Dutch campaign would themselves be illegal in the UK).

Whereas as there appear to be national versions popular social networking websites like MySpace in different languages, the English version of MySpace connects up with more of the world[47]. Hence, British parents could be worried that their children are being groomed by American paedophiles.

3.3   ICT Regulation

Legal Framework

CEOP (the Child Exploitation and Online Protection Agency) has just been launched in 2006 as a new Government-sponsored multi-agency body, managed by the police, and involving academics, industry, children's charities etc in a multi-stakeholder collaboration that seems unique in Europe. (Some of its functions are dealt with by different agencies in other countries, but some are not covered at all in other countries). CEOP should become an important interface between law enforcement, industry, child protection, and government policy, identifying trends, raising awareness, bringing them to the attention of ministers and providing relevant evidence, as well as tracking down perpetrators and dealing with victims. Hence CEOP assembles research in the field, but also is kept informed of trends by the police. It will also commission some research. For example, having bid to be the UK node for INSAFE, it is planning a risk awareness campaign for 11-16 year olds which also involves gathering information on what they do online and their experiences). It also evaluates other awareness raising programmes (e.g. by NGOs). It gives advice to the courts to help implement the law. For instance, there is a law against trading images online. CEOP is researching this to provide background information for judges to assign proportionate sentences they need some evidence relating to this phenomenon (how many images people trade, how much trading takes place). In addition, CEOP tries to influence industry. In their 'Safer by Design' initiative, they are advising how can firms might modify their game or chat environments to make the safer for children by design – e.g. by incorporating the deterrent of having a law enforcement presence if players press this button.

Although some countries have stricter laws than the UK (e.g. Ireland has laws about possession of images that are stricter in the UK), the UK has increased legislative structures in recent years. The 2003 Sexual Offences Act made grooming a child online for sexual purposes (in chat rooms, email, instant messenger etc) illegal, and the grooming laws gained a high profile in the press; other countries in the EC are now considering passing similar regulations. The Home Office (the Government ministry concerned with security and crime) has recently spent £4m (€6m) on a major public safety awareness campaign (see www.Internetsafetyzone.com).

Most significantly, the Home Office Task Force on Internet Safety and Children has brought together the key industry (Internet and mobile), child protection, regulators, academic research and law enforcement stakeholders to monitor and advice on child safety issues online. This has established a number of effective subgroups – one monitoring research, one that produced consensual and widely adopted guidelines on chat-rooms, one advising on the above public awareness campaign, one on moderation, and one, currently meeting, on social networking sites. The mobile operators' code of practice (agreed in 2005) was another key instance of multi-stakeholder collaboration reaching agreement, as part of self-regulation (but monitored by the Home Office), in this case agreeing an opt-in policy for all adult content on mobile phones and ensuring adequate safety information is available to parents and children.

According to the UK advisory board, other EC countries may not be so advanced as in the UK, either in terms of direct provision for safety and awareness or in terms of collaboration across stakeholder groups. However, there are many attempts to spread good practice – via the EC, the Council of Europe, the Virtual Global Taskforce, the INHOPE and INSAFE networks, etc.

The British police have a unit specifically looking for pornographic images of children circulating on the Internet and there have been some high (media) profile cases of campaigns by this unit and cases of celebrities who were found to have these pornographic images on their computers. In July 2006 there was a change in the Data Protection Act which means that UK financial institutions can withdraw credit cards from paedophiles who use them to buy pornographic images of children on the Internet (following a campaign by children's charities in the UK)[48]. One current law now being considered would make the downloading or viewing of violent pornographic images a criminal offence (following a high-publicity campaign of a mother whose daughter was killed, where the killer had watched such images)[49].

Policy regarding Internet safety and awareness for children tends to be spearheaded either by the Home Office, and now CEOP (as above) and/or by the DfES (Department for Education and Science). There are some tensions between these two approaches, as the former is concerned with preventing serious crime and the latter is concerned that safety considerations are not forgotten as initiatives to widen and equalise Internet access for educational purposes are developed (e.g. the Computers for Pupils scheme from the DfES technology Futures Unit (£60m in 2006-7 to buy equipment and Internet connectivity to the poorest pupils in1000 schools in 108 local authorities.). The HO approach tends to focus on children's leisure activities online, mainly at home, and addresses parents primarily. The DfES approach tends to focus on educational/school activities online, and addresses teachers primarily. Attaining coordination across these two major ministries can be hard to achieve. The DfES is largely informed by the British Educational and Communication Technology Association (Becta), which conducted some nation-wide surveys in 2001 and 2002, which advises all schools on Internet safety, and which introduced an Internet Surfing Proficiency Scheme a few years ago (which goes beyond the European Computer Driving Licence). Between these two approaches, the think tanks (particularly, IPPR and Demos) try to draw attention to the latest controversial or risky issue, to ensure adequate initiatives result.

In 2003, the Office of Communications (Ofcom) was formed, following the Communications Act 2003, to provide a converged and unified regulatory framework for a converging sector (especially, converging across telecommunications, broadcasting and spectrum). The approach is largely that of an economic regulator aiming to provide light touch regulation and to encourage self-regulation. At present (though this may not continue), Ofcom does not seek to regulate the Internet (though it does regulate mobile communication). However, it has some public policy objectives also, one of which is media literacy. It defines media literacy broadly as 'the ability to access, understand and create messages across a range of media', and for this policy, the Internet is explicitly included. 'Access', in this definition, is taken to include the ability to regulate access to unwanted content or services as well as to gain access to desired services, and includes a wide range of parental and child awareness and protection issues. Ofcom is an evidence-led regulator, and is quickly establishing itself as the provider of major amounts of up to date market and consumer information on access, use, attitudes, complaints, concerns, skills etc regarding all media, including online. For media literacy, it has thus far commissioned literature reviews of children's and adults' media literacy research, major national surveys of children's and adults' levels of media literacy, a series of multi-stakeholder meetings to develop policy, and is currently planning to expand its activities in this area.

Relevant institutions (NGOs, ISPs)

A range of other organisations also produce information, research, and safety awareness information for children and parents also. For example, a few years ago, the BBC set up the Webwise initiative to encourage skilled use of the Internet across the population. The children's charities are active in this area and regularly commission new research to draw attention to key challenges to children's safety from Internet/mobile technologies – examples include the recent bullying survey, the activities of Childnet International, Barnardo's research on child victims of online grooming, etc.

CHIS is the Children's Charities Internet Safety Coalition – most or all children's charities (Barnardos, National Children's Homes, the NSPCC, the National Children's Bureau, etc) have signed up to this, and its very media-active head is John Carr, who brings considerable media and political attention to issues of child safety online.

The British advisory panel noted that having more NGOs in the UK operating in this field of Children and the Internet probably helped to give the topic a higher profile than in some other European countries, since these NGOs lobby hard, often in collaboration also with the Internet Watch Foundation. This has also contributed to a greater awareness of risks as more effort has been spent on raising awareness compared to some other countries.

In the UK NGOs have produced various awareness material, which some other countries have now asked for so that it can be translated (one of the NGOs had recently received a request from Macedonia to use its awareness resource).

3.4 Public discourse

Awareness campaigns

There have been a series of high profile awareness campaigns over the past five years. Recently, these have been led by the Home Office Task Force for the Protection of Children on the Internet. Additionally, the children's charities and the industry (e.g. Microsoft) have led awareness campaigns in the press, to schools and as leaflets for parents.

Media coverage

A search was carried out in the Lexis-Nexis database, covering all UK national and local, daily, weekend & weekly newspapers from 03-08-2006 to 03-11-2006 and using the keywords 'child'; 'teen'; 'parent'; 'computer'; 'Internet' and 'online'. The local/ smaller circulation papers had the highest number of references to new technologies/the Internet and children. On the other hand, it was striking that the most popular tabloid paper, 'the Sun', as well as one of the key broadsheets, 'The Independent' did not have any such references. The local papers seem to refer more to case-specific/personal stories taking place in the respective regions, whereas the national papers mainly refer to findings or issues/subjects of general interest to society.

In general, the theme dominating the press coverage in the UK concerned child abuse images on the Internet. A large majority of news articles refer to child abuse and pornography on the Internet and only rarely to the opportunities that the Internet offers to children, showing the popularity that discourses about risks and dangers enjoy in this respect. That brings to our minds the 'media panics' discourses taking place a few years ago with respect to the content and effects of the mass media.[50]

In addition, a very significant part of the press coverage refers to criminal activity over the Internet and to related police/court cases with children being the victims. Thus, cases of child-bullying, paedophiles, online criminal activity against children on the Internet, etc. are the ones covered most by the UK press. In relation to that, parents' and teachers' concerns and difficulties in protecting children also receive a good deal of coverage and a number of articles acknowledge the necessity of teaching children about risks and dangers on the Internet.

The press coverage captured above may in part reflect the awareness raising activities of the Government and NGOs outlined below. But it may also reflect a point in the Internet's diffusion. If we take a parallel, in the early 1980s there was also more coverage of first home computer in the local press than in the national press in terms of 'human interest' stories – some local. 'ordinary' person was doing something interesting/unusual/new with computers (starting a business, helping the local community, writing games or other software etc.). Actually, this was overwhelmingly positive coverage. If anything, the only negative comment related to 'addiction', to games or computers in general. Hence, if we were to look at press coverage of the Internet in the mid- to late 1990s, we might find more equivalent positive coverage.

The wider context

It is difficult to disentangle media coverage and media panics from what is 'really' happening which the media reports upon. However, to put media coverage on the Internet into context, there is a wider media coverage of paedophiles in particular, and regular reporting of cases where children have been abducted, assaulted and of the relevant court cases. The problem is, 20-30 years ago there was less reporting of such cases (apart from a particular and exceptional case when in the 1960s a couple killed a number of children). So has media coverage changed or has behaviour changed? Another example is that reporting to the hotline of suspected Internet child abuse sites has increased, and the hotline (the Internet

Watch Foundation) has a commitment to increasing public attention to this issue[51]. However, the Government and NGOs have made efforts to raise awareness in this field, is the increase in part reflecting a greater willingness to report, or does it indicate that there has been a growth in these websites?

Certainly legislation and police actions have changed. There is a 'sex offenders' register. If someone wishes to work with children, employers have to check these records to see if the person has had a conviction for an offence against children. There have been campaigns by some parents to make this register public to find out if there is a child sex offender living in their area. About two years ago, someone living in one area was (falsely) thought to be on this register and a mob of parents went to his house to drive him out of the area. This led to a media discussion of the problems of making this register public. In November 2006, some convicted paedophiles on this register 'went missing' (i.e. they were not living where they should be and reporting regularly to the police). The police took the unusual step of broadcasting their pictures on the BBC news.

Another area where we have to comment on media coverage is in relation to some children bullying other children. Apart from cyberbullying, this had a slightly higher general media coverage of bullying in about 2006. To some extent this was because there was a 'new' phenomenon of bullying by mobile phone (i.e. sending intimidating text messages). This may have received more coverage because (arguably) more children had mobile phones than Internet and at the time there were some general concerns about mobiles (e.g. should children be using them at all in schools – in many schools their use is banned; there was a problem of some children stealing other children's phones). More generally, the question was raised as to whether children bullying other children had increased in society as 7 out of 10 children claimed to have been bullied. Or did the concern arise because this was the first time efforts had been made to quantify the phenomenon?

Significant events

Arguably there are few single outstanding events relating to the Internet that everyone remembers or that was a turning point in media coverage or public discuses (apart from, perhaps, the case of US serviceman who met the teenage girl online and persuaded her to leave he family with him). Overall, there is more a drip effect on reoccurring stories of, especially, paedophilia both offline and initiated through online channels and child pornography circulating on the net.

3.5   Values

General values

These are discussed comparing the 3 countries in Section 4

Child-related values and attitudes

These are discussed comparing the 3 countries in Section 4

Comparative risk perceptions

In general, there has, arguably, been an increase in parents' perceptions of risks to their children. This can be seen in the dramatic rise in the extent to which parents drive children to school over the last 30 years (90% are now driven to school) and also in the extent to which parents drive their children to the various after school activities in which the children are involved. The rise of Bedroom Culture has been documented in the UK (see Livingstone and Bovill, 2001), and part of the reason for this has been a fear of the risks to children in unsupervised public spaces. In fact, over the years in various interviews conducted by Leslie Haddon and Sonia Livingstone, parents noted how they used to 'go out and play' when they were young, but now they did not let their children do that because the world outside had become a more dangerous place.

3.5 Social contexts

Educational system (technology in schools, media education)

Soon after home computers first appeared in the 1980s there were efforts to make the widely available in school. In fact, in a very unusual move, the BBC commissioned the development of a PC known as the BBC Computer which for many years became the most common one adopted for school. But this is indicative of the support the Government had from the media in bringing ICTs into education, in the light of wider discourses about the evolving information society. When the Internet became a mass market there was a similar effort to connect up all the nation's schools.

The UK has specific organisation, Becta, that deals with the introduction and support of ICTs in school. It provides advice, conducts research, reports on pilot schemes and generally coordinates efforts between Government, local authorities, industry, other relevant bodies and educational practitioners of all kinds, obviously including teachers. Its initiatives range from ensuring that at teacher training level all new teachers have to demonstrate knowledge of technology as a tool for learning, through putting in place a 'national digital infrastructure' to organising a 'Laptop for Teachers' scheme (bulk buying 234,000 laptops so that they was a discount for teachers to but then (Becta Annual Report, 2007).

This year Becta noted that 'virtually all schools have network and broadband connectivity' (Becta annual Report, 2007) and that the policy goal was that by 2008 every children should have access to a personalised online learning space.

Currently the of pupil to PC 7to 1 in primary school (aged 7-11), 3 to 1 in secondary schools (aged 11-18).

Last year 41% of pupils have full access to the Internet in secondary schools, 6% have full access in primary schools. 57% of secondary school pupils have access to the Internet under staff supervision in secondary schools while the figures is 93% in primary schools Becta (2006) Survey of LAN infrastructure and ICT Equipment in Schools, fieldwork Nov 2005-Jan 2006).

In fact, a UK survey in 2004 showed that (unlike many other European countries) at that stage more children access the Internet from school rather than home (99% as opposed to 75% of 9-19 year olds, (Livingstone and Bober 2004).[52] A measure of the important of education as a motivation for Internet use is that 90% of children in that study report using the Internet for school or college work.

In UK pupils are taught about and how to use of Internet within separate lessons on ICTs and in addition ICTs are used in specific subjects, although the exact use varied across subjects, (Valentine et al, 2005[53]).

Peers and Social Activities (participation, leisure activities, clubs, friends…)

One change in the experience of children is related to arguments about children's greater absence from unsupervised public spaces (Livingstone, 2002).[54] This socialising in the home has been identified in as Bedroom Culture'. Observing that this is a European and North American phenomenon, partly depending on wealth, this research showed the high proportion of European children, especially teenagers, who had their own room (e.g. 82% of 15-16 year-olds). Indeed, the majority of 15-16 year-olds claimed to spend at least half their waking life in their rooms (Livingstone and Bovill, 2001).[55]

A number of factors shape this experience besides general affluence, some more country-specific than others. For example, in Britain the influence of the lack of leisure alternatives for children and youth outside the home has been commented upon (Bovill and Livingstone, 2001).[56] In addition, the last decade or two has also seen the process, again perhaps true in some countries or areas than in others, whereby there has been a growing concern for children's safety in public spaces. The UK study of children and ICTs described how parents felt under pressure to keep their children indoors (Livingstone and Bovill[57], 1999; Livingstone

2002). Moreover, children spend time not just in their own homes but also in those of their friends.

In the UK, as in many other countries, children bedrooms have become 'media rich', reflecting in part the need to provide alternatives if children are to be kept off the streets (Livingstone and Bovill, 1999). This includes, for an increasing number, access to the Internet. This is relevant for the this report in that although more and more children and young people may be under greater general supervision overall by virtue of being in homes (or other supervised spaces), within the privacy of their bedrooms there access to the online world is less easy to supervise. While these arguments may apply somewhat to the other European countries, there is the question of whether it applies more in some than others, and more specifically in the UK where this research on bedroom culture took place.

Annex D: Draft Templates for D3.2

Notes on the process of producing the D3.2 report

- Some tables and data can be identified by using common data sources – the LSE can coordinate some of this using Eurobarometer data, etc
- Some tables and data will be contextual/background, and some will be focused on particular element we wish to identify or explain
- Some must be searched for within each country
- It is important to ensure that this report includes all the important and relevant findings in the online repository, requiring a further round of updating the repository (by November)
- National and common reports should reflect awareness of methodological or data limits
- While preparing this report, we will identify policy implications – these must feed into WP5
- We need to emphasise the importance of precise percentages where available (including clear statement of sample/base)
- We must integrate qualitative research as well as quantitative findings

Suggested report structure for D3.2

- Executive summary (3 pages)
- Introduction (10 pages)
- Patterns of similarities and differences (similar to current section 2, but focus on key data on overall findings, plus cross-national differences from the 'EU norm') (15 pages on individual and 15 pages on country level variables, ordered as below)
- Explaining European similarities (similar to current section 3, to test hypotheses regarding similar patterns within the individual level only) (10 pages, organised by hypotheses)
- Explaining European differences (similar to current section 4, but designed to use country level variables to explain identified differences only) (15 pages, organised by 'difference')
- Conclusions (substantive, plus reflections on method, theory and process; 10 pages)
- Bibliography and endnotes (5 pages)
- Tables (from Eurobarometer, background info from ESS and other sources, ITU, etc) of N variables by 18 countries
- National reports (will need brief summary for each, plus full version to be available online)

Template for Individual level Variables

Access
- Access location (home, school, elsewhere), technology type (Internet, other online ICTs)
- Discuss in relation to age, gender and SES
- Identify any points of national (or subnational) distinctiveness

Usage
- Amount (frequency, length in years, amount of time) and type of usage (for what purpose)
- Discuss in relation to age, gender and SES
- Identify any points of national (or subnational) distinctiveness

Attitudes and skills
- Evidence of levels of children's, parents' and/or the population's attitudes towards and skills/literacy in using the Internet and online technologies
- Discuss in relation to age, gender and SES
- Identify any points of national (or subnational) distinctiveness

Risks
- The incidence of online risk (divided into contact, content and privacy risks especially, or even reported by separate risks) that are experienced by children and young people
- Any evidence of risk contexts, responses, coping, consequences
- Discuss in relation to age, gender and SES
- Identify any points of national (or subnational) distinctiveness

Opportunities
- The incidence of online opportunities (or beneficial activities) taken up by children and young people
- Any evidence of positive use contexts, responses, consequences, benefits
- Discuss in relation to age, gender and SES
- Identify any points of national (or subnational) distinctiveness

Parental mediation
- The nature and extent of parental activities that mediate (or regulate) their children's online activities (detail exact parental activities and children's perceptions/responses)
- Discuss in relation to age, gender and SES
- Identify any points of national (or subnational) distinctiveness

Template for Country level Variables
(for a more extended version see the overview at the end of section 4)

Media environment

- Diffusion of ICT infrastructure (status of digitalisation, domestic Internet/broadband)
- Availability of Internet safety tools
- Media industry e.g. the nature of the Internet industry, availability of other online platforms

ICT regulation

- Legal framework
- Relevant institutions (e.g. police, special bodies dealing with children and the Internet)
- Awareness programmes to promote ICTs

Public discourse

- Awareness campaigns
- The range and activities of relevant NGOs
- Media coverage
- Significant events

Attitudes and values

- General values
- Child-related attitudes and values
- Risk perceptions

Educational (and social) contexts

- Education system – technology in classrooms/curriculum, media education, teacher training, technical infrastructure of schools, parental education
- Peers and social activities

[1] Kohn, M. L. (1989). Introduction. In M. L. Kohn (Ed.), *Cross-National Research in Sociology*. Newbury Park: Sage. See also Livingstone, S. (2003). On the challenges of cross-national comparative media research. *European Journal of Communication, 18*(4), 477-500. Kohn also identifies a fourth level – the transnational, but this is not applied in the present case.

[2] See http://ec.europa.eu/information_society/activities/sip/eurobarometer/index_en.htm and www.mediappro.org (Last retrieved on 11 June 2007).

[3] Staksrud, E. (2005). *SAFT Project Final Report*. http://europa.eu.int/information_society/activities/sip/projects/awareness/saft/index_en.htm#results. See also Livingstone, S., & Bovill, M. (2001). *Children and their Changing Media Environment: A European Comparative Study*: Lawrence Erlbaum Associates. In both these studies, the researchers treated each country as a distinct context precisely in order to test whether the same finding (such as, parents underestimate risks online compared with children) in those different contexts; only if the similarity holds is the finding considered robust.

[4] 'The Children and Their Changing Media Environment; project (Livingstone & Bovill, 2001) exemplifies this approach, for it sought to understand how systematic differences in education, wealth, parenting, etc. were associated with differences across countries in children's media use, including adoption of new media. Thus it examined the correlations between national wealth (e.g. GDP), or degree of ICT diffusion, and the dependent variables of children's media use; this model expects to find neither similarities nor differences, simply, but rather to find a model that applies across all nations that explains differences observed among them.

[5] This lowest number of available cases in Portugal may be connected with the accentuated decrease of children in the households. The dominant image of the family as a couple with children is decreasing (50,5% in 1999, 46,8% in 2006). Single parents are rare while slowly increasing (in 2006, single father: 1,1%; single mother, 6,9%). The 2001 Census showed 30% of children without siblings, 46% with only one sibling and Portuguese population getting older: for 102 old people there are 100 young.

[6] The focus on "owning" mobile phones may have contributed to lower values than those presented by Marktest, a Portuguese private market research company: in 2006, the rate penetration of "owning or using" mobile phone by 10-14 years old children was 88,3% in this target age.

[7] Mediappro (2006), op cit., p.12. Available at www.mediappro.org

[8] Source: Lucyna Kirwil (2002).

[9] It would be interesting to crossover this set of variables with parents' Internet levels of literacy and use in order to establish a possible correlation with their perspectives about child's Internet use.

[10] M. Prensky (2001), Digital natives, digital immigrants, *On the Horizon, 9*(5).

[11] Source: Eurobarometer Survey (May 2006) *Safer Internet*, Special Eurobarometer 250 / Wave 64.4, Brussels. . Sample QC1: 18+ years old (N=24738). Sample QC4: adults reporting on a child (<18 years old) they are responsible for in the household (N=7560). Country abbreviations: AT Austria, BE Belgium, BG Bulgaria, CZ Czech Republic, DE Germany, DK Denmark, EE Estonia, EL Greece, ES Spain, FR France, NL Netherlands, PL Poland, PT Portugal, SE Sweden, SI Slovenia, UK United Kingdom.

[12] This survey of 1511 9-19 year olds and 906 of their parents in 2004 reported that, for children who have Internet access at home, filtering software is installed for 34% of 9-11 year olds, 37% of 12-15 year olds, and 34% of 16-17 year olds; lower figures (20%, 24% and 29% respectively) say that they have installed monitoring software. Nonetheless, 23% of parents of 9-17 year olds said they did not know if filtering or monitoring was installed. See www.children-go-online.net

[13] See Livingstone, S., and Bober, M. (2006) Regulating the Internet at home: Contrasting the perspectives of children and parents. In D. Buckingham and R. Willett (Eds.), *Digital Generations*. Mahwah, NJ.: Erlbaum. Pp. 93-113. http://eprints.lse.ac.uk/1016/

[14] Source: Eurobarometer Survey (May 2006) *Safer Internet*, Special Eurobarometer 250 / Wave 64.4, Brussels. Sample QC8: Adults reporting on a child (<18 years old) they are responsible for in the household (N=7560). Country abbreviations op cit..

[15] For example, the SAFT survey in five North European countries has reported gender differences in activities engaged in online by children. Op cit.

[16] Due to this lack of knowledge about harmful and illegal experiences online, a private University (Universidade Autónoma de Lisboa) announced in 2005 a course for parents on "Children's Internet Safety", and has launched a big marketing campaign.

[17] In fact, in the UK age (here, from 12-17) is a main predictor of a range of access locations, years online, frequency of use, time online per day, Internet self-efficacy, online skills and opportunities online as well as risks online. Since the data of the *UK Kids Online* study cover a comprehensive set of variables they will be used also in the following sections. The variables used in this study were defined as follows:

SES. Socio-economic status is measured according to standard UK market research categories: A – Upper middle class; B – Middle class; C1 – Lower middle class; C2 – Skilled working class; D – Working class; E – Those at lowest levels of subsistence (Reynolds, 1990).

Access. This was measured in two ways. *Access locations* (scale 0-10) summed the number of locations the respondent had ever used to access the Internet (computer at school/college, computer/laptop at home, computer laptop in someone else's house, computer in public library, computer in an Internet café or kiosk, computer at parent's work, computer in your own work place, digital television at home, mobile/WAP phone, and games console at home). *Years of access* was calculated by subtracting the age when they first had gained access from their present age.

Use. This was measured in two ways. *Frequency* was a scale ranging from 8 (uses more than once day) through 5 (uses once a month) to 1 (never uses) on which respondents rated their frequency of Internet use. *Time online* was a composite measure based on the respondent's judgment of how much time (options: 1=none, 2=about ten minutes, 3=about half an hour, 4=about an hour, 5=between one and two hours, 6=between two and three hours or 7=more than three hours) they spent online on an average weekday and weekend day.

Internet literacy. This was measured in two ways. *Skills* (scale 0-7, Cronbach's α=0.70) summed the specific skills the respondent claimed to be good at (options – finding the information you need on the web, setting up an email account, sending an instant message, downloading and saving an MP3 (music) file, setting up a filter for junk mail or pop up adverts, getting rid of a virus on your computer, and fixing a problem by yourself when something goes wrong). *Self-efficacy* was a 4-point scale (Eastin & LaRose, 2000) on which respondents self-rated their own skill as beginner, average, advanced, or expert.

Opportunities. A composite measure which summed the total number of opportunities that each respondent had taken up online (scale 0-30, α= 0.76).To cover the range of young people's online activities, response items were drawn from research and opinion surveys of Internet use (e.g. Dutton, et al, 2005; Kaiser Family Foundation, 2005; Ofcom, 2006; Pew, 2004).

Risks. A composite measure which summed the total number of risks that each respondent had encountered online (scale 0-15, α = 0.74). Designed to cover the range of risks occasioning public concern, response items were drawn from research and opinion surveys (e.g. Kaiser Family Foundation, 2005; Mitchell, et al, 2003; Ofcom, 2006).

[18] Once again, gender is generally important in the UK: Boys have more access locations, have been online for longer, use the Internet more frequently, and have more online skills, but these are very small correlations. There are no gender differences in UK data for online opportunities - (this is a total of the opportunities they take up, i.e. a measure of breadth of online activities, not depth

[19] Findings are based on an on-line survey of children (CIES, 2006) with the following results: More boys have a PC in their bedroom (46,3%) than girls (35,5%); boys tend to use the computer and Internet more than girls and start using them earlier. This on-line survey also shows gender variation in terms of media preferences, which emphasise the greater male interest in the Internet. If they had to choose between Internet or mobile phone use, boys would choose Internet (61%) and girls would choose mobile phone (55%).

[20] But note, there are also great income differences between the top and bottom classes in Portugal. In December 2006, Portugal presented the highest social inequality among the EU15. In a country where economic reasons are strongly presented for not having access to the Internet at home, it should be noted that the average salary was 620 € and the minimum salary was 385 €..

[21] Economic and educational contexts lead the option of having or not Internet access at home. While the Internet access at home has been rising significantly in the households, in 2005 reasons for not having Internet at home were the high cost (40,1%), lack of knowledge on how to use it (23,1%) and on its usefulness (13,3%) (INE). In 2006 (OBERCOM 2007), 56% of those without Internet justify their option with the absence of utility/necessity of this kind of technology, showing a higher level of resistance. In second place, ex-aequo, comes the high cost of the equipment and the absence of technological skills. The high cost of accessing (51%) and linguistic problems (33%) were also arguments. This situation occurs mainly in households without young people. In 2006, the 16-24 age group leads the Internet access (83%). In Portugal there is little available data on use by young people based on age, gender and socio-economic status as the relevant variables. For the whole population using Internet, 36% use it 1-5 hours daily; 17% use 5-10 hours; 10% use 11-20 hours and 14% declare to use more than 20 hours daily (OBERCOM, 2007).

Research on the profile of Portuguese people as users of the Internet revealed it is as a privileged space for leisure and socialising; e-mail is a prominent feature, used by 73% of individuals with Internet access; random surfing is also significant (65%) (Cardoso et al., 2005).

[22] On the contrary, even if the numbers are marginal (total n=164), the ratio of parents reporting that their children have encountered harmful or illegal content at home is lower (8%) among the parents who did not set the rules for the use of the Internet than among those who set some rules (25%; chi-square [1]=5,28, p=,03) (on the basis of the Eurobarometer data set: QC4_2 by QC10_1). A similar relationship is noted for risk experienced at school (chi-square[1]=6,70, p=,018 for QC4_2 by QC10_2.

[23] QC5_1 to QC5_8 by QC 10_1 to QC1_6 and QC6 by QC10_1 to QC10_6.

[24] There is no significant correlation between parents' expertise in the use of the Internet and their convictions about the risks for children in the three countries examined here [QC2 by QC10 in Eurobarometer]. This might partly be due to the fact that the numbers of cases for this kind of in-depth analysis are rather small.

[25] For details of the QCA approach see Rihoux (2006) and the EU Kids Online report on WP 4, section 5.6.

[26] See, for example, the large gap in the figures for Poland between 2001 and 2002; this might seem unexpected, as the Polish report does not an Internet boom beginning in 2000

[27] This is very important for diffusion – the Polish national report argues that this was one important factor holding back Internet diffusion in that country

[28] In the Portuguese country report on the regulatory framework, trying to reduce this 'technology gap' is discussed.

[29] However, we should be wary of comparing rural-urban statistics in the UK. Although questions of infrastructure in rural settings are relevant, many living there commute to urban ones, and many working in agriculture are more like SMEs, i.e. professionals.

[30] See Hallin/Mancini (2004).

[31] It should be stressed that only fixed lines with capacities in excess of 144 kbit/s are recognised as broadband lines. However, the category of fixed broadband lines also comprises lines with capacities below 144 kbit/s, i.e. 128 kbit/s access still very common in Poland.

[32] According to Eurostat, in 2003 Portuguese productivity was only 58,9% per working hour of each worker, while in most European countries it was more than 100%. See Cardoso *et al.* (2005: 36-37).

[33] One must not forget that overt censorship prevailed until 1974, when finally was disrupted by fall of political dictatorship.

[34] Private newspapers only appeared after 1986; radio was also open to privatization in 1988 and, finally, private television appeared in 1992, with two commercial TV channels, only after the 1989 revision of the Portuguese constitution. See Cardoso *et al.* (2005: 76).

[35] According to a national survey carried out by CIES, in 2003, only 44% of Portuguese population declared having read a book recently, whereas 77.5% mentioned that they usually read magazines and newspapers. In the top of Portuguese leisure preferences comes watching television (99,4%) or being with family and friends (93,8%). See Cardoso et al. (2005: 202). The same conclusion has been drawn in a national survey to higher education students, supposedly more frequent readers than non-higher education population of the same age. This study has concluded that, on average, Portuguese higher education students do not differ much from the rest of young population. Another explanation was pointed out by this study: it seems that family cultural background is more important than present social position (since students from more favourable social and cultural backgrounds reveal higher consumptions levels of cultural activities in general). See Balsa *et al.* (2001, chapter III).

[36] The older you are the lesser you are expected to use Internet and other ICT. This last assertion, evidently, has to do with a negative correlation between *age* and *education*, which reflects the broader structural pattern of development mentioned above.

[37] Before 1974 women (especially married ones) were clearly subordinated to men (the "head" of the family), they couldn't vote, work in some professions, etc. After 1974, all of these features started to change: first of all, from a legal point of view – inequalities were eradicated from existing legislation –, but also in a more profound way, through modification in values and mentalities.

[38] According to Marktest, between 1997 and 2006 Internet penetration rate raised from 5,6% to 43,6%.

[39] In April 2007, a panel on Protection of children in the Internet was part of an IAC public event, and EU kids Online was invited to participate. Short articles concerning Internet use and EU Kids online aims were also published in the IAC bulletin.

[40] In 2000, from around 1214 news items related to children, only 10 were related to the Internet, mostly come from outside, and there were no items on mobile phones. Paedophilia, kidnapping and traffic of children were the main subjects. In 2005, the updated research was extended to two popular newspapers. From a total of 5462 items, 77 covered events and issues associated with young people's access and use of ICT (21 of them focusing on schools). National items presented mostly well succeeded Police actions against paedophiles and the alert of pornographic contents on public Internet access used by children. Even with residual values, risks associated with mobile phones were more present in the news, mostly linked with delinquency (mobiles stolen from children or by children). In international news, the subjects vary: health risks due to radiation, addiction on mobile phone, explicit violence of the contents; circulation of threatening messages and nudity images; plagiarism of school reports.

[41] IAC press-clipping comes from Memorandum, a private clipping company. It includes national and regional newspapers, as well as thematic magazines (oriented to parents).

[42] Primary schools with less than 10 students have been closed, so the total number is reduced.

[43] In 2005, according to a Marktest survey, 86,4% of the Portuguese young people (15-30) were not interested on civic, political or social participation, in spite of the existence of 1200 associations. Their biggest worries were unemployment (41,5%), the price for owning an apartment (30,6%) and their first job (26,8%).

[44] These do not consider children under 15 years old. Therefore we have plenty comparative national data on youth cultural practices but not exclusively on children.

[45] According to UMIC (the national agency for the implementation of a knowledge society) one of its major goals is to create a national "Network of Internet Spaces". To follow this purpose UMIC intends to articulate 840 Internet Spaces already running all over the country: 285 public equipments in several municipalities; 142 public libraries; 122 "digital cities and regions"; 156 social solidarity institutions; 78 digital inclusion centres; 31 employment and formation centres; 17 cultural, leisure and sports associations and, finally, 8 "Live Science" centres.

[46] For instance, a *Weekend with Ecology and Multimedia* costs 50 euros per person.

[47] This is a important research field to explore in the future.

[48] Internet Watch Foundation, Media Coverage Featuring the IWF, July 2006-September 2006.

[49] Internet Watch Foundation, Media Coverage Featuring the IWF, July 2006-September 2006.

[50] Indicative of this 'media panics' spirit is the following article: Sunday Mirror, August 27, 2006 Sunday, (3 Star Edition) *'INTERNET SEX BEAST CONTROLLED HIS VICTIMS WITH THEIR OWN COMPUTERS; EXCLUSIVE STORY THAT WILL PUT FEAR IN EVERY PARENT'.*

[51] Internet Watch Foundation, Media Coverage Featuring the IWF, July 2006-September 2006.

[52] Livingstone, S. and Bober, M. (2004) UK Children Go Online. Surveying the experiences of young People and their Parents, Report for the ESRC.

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