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Classification of online problematic situations in the context of youths' development

Abstract: Previous research on youths' online risky experiences has mostly utilized quantitative designs. However, some of this research does not account for youths' views and perceptions. This qualitative study fills this gap by describing online problematic situations from the perspectives of European youths, focuses on classifying online problematic situations based on youths' perspectives and interrelates these with their developmental contexts. As a theoretical framework, the co-construction model was adopted, which proposes that youths' online and offline worlds are interconnected. Interviews and focus groups were conducted with youths between the ages of 9 and 16 from Belgium, the Czech Republic, Greece, Malta, Italy, Portugal, Romania, Spain, and the United Kingdom. Youths' responses reflected the complexity of the various problematic situations online they encountered or indirectly experienced, and how such experiences were interconnected with the developmental contexts of peer relationships, parent-child relationships, romantic relationships, school, sexuality, identity, health, and morality. We recommend the development of complex educational programs focused on youths about problematic situations online, which discuss the possible situations they may encounter and how to deal with them.

Keywords: youth, online risks, online problematic situations, relationships, school, sexuality, identity, health, morality

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1 Introduction

These days, youths are surrounded by digital media and through them they experience a variety of positive and negative situations (Livingstone, Haddon, Görzig, and Ólafsson, 2011). Although current research shows that positive and negative online experiences are interconnected (Livingstone et al., 2011), the majority has examined the following online risks: cyberbullying (Law, Shapka, and Olson, 2010), meeting online strangers offline (Mitchell, Wolak, and Finkelhor, 2007), exposure to sexual materials online (Yan, 2006) or online addiction (Chou and Hsiao, 2000). Most of this research on online risks is quantitative and aimed at understanding the prevalence, definitions, measurement and the associated psycho-social consequences.

However, perceptions of risk differ for children and researchers (Cohn, Macfarlane, Yanez, and Imai, 1995). What researchers describe as ‘risky’ is sometimes perceived as normal and not negative among youths. Therefore, in the present study, we take a child-centred approach by investigating online risks from the perspectives of children and adolescents. Using this approach, youth spontaneously reported many online situations from the unpleasant to the harmful. To cover this broad spectrum of online situations, we define problematic online experience as “encompassing a broad range of possible online behaviors and experiences that, together or individually, result in a disruption of relationships, values, daily obligations, and or mental or physical well-being” (Mitchell, Sabina, Finkelhor, and Wells, 2009, p. 707). Problematic situations online are a broader concept than ‘online risk’, which is defined as the probability of harm (Livingstone et al., 2011). We also intend to create a new classification of these situations using the ‘Content-Contact-Conduct’ (CCC) classification of online risks, which was created within the EU Kids Online project (Livingstone et al., 2011). As a theoretical framework, we adopted the co-construction model, which we describe in the next section.

2 Theoretical framework: Interconnecting online and offline worlds

The co-construction model was first proposed by Greenfield (1984) for studying media and later by Subrahmanyam, Smahel, and Greenfield (2006) for investigating the online environment. The premise of this model is that users ‘co-construct’ their online and offline worlds. These worlds are intertwined, interconnected and have a bi-directional relationship with each other (Subrahma-

nyam et al., 2006). Due to overlaps in these worlds, it is likely that the online world helps youths navigate important developmental issues from their offline lives, which include romantic relationships, parent-child relationships, peer relationships, sexuality, identity, health, and morality. The connections between youths' online and offline worlds might suggest that they act in similar ways and interact with similar people in both worlds. In particular, many adolescents believe that the internet has improved and helped maintain their friendships, offered them a safe environment to explore their sexuality and identity, and allowed them to communicate with romantic partners and with their parents (Subrahmanyam et al., 2006; Valkenburg and Peter, 2007). Research also suggests that online and offline risks are associated (Subrahmanyam and Smahel, 2011).

3 Contexts of youths' development

Understanding developmental contexts is important because these contexts influence how youth deal with developmental issues. It is becoming increasingly clear to researchers that they should consider the digital world as another social environment which greatly affects youths' development (Subrahmanyam and Smahel, 2011). The following section considers the impact of new media on the developmental contexts of peer relationships, romantic relationships, parent-child relationships, schools, sexuality, identity, health, and morality. These are most often discussed in relation to the problematic aspects of youths' internet usage.

3.1 Peer relationships

Peer relationships allow youths to negotiate, compromise, share, and learn social lessons from each other that grown-ups are not able to teach (Parker, Rubin, Erath, Wojslawowicz, and Buskirk, 2006). A darker side of youths' peer relationships is bullying. Being active users of information technologies puts youths at risk for another form of bullying: cyberbullying. Cyberbullying refers to engaging in intentionally hostile behaviors, such as hacking and name-calling through information technologies (e.g., e-mail, instant messenger [IM], social networking sites [SNS]; Law et al., 2010). Youths report that their peers also send them violent, aggressive, and gory content, which they sometimes find bothering or upsetting. Such findings are not surprising as adolescents often use the internet for communication with peers (Smahel, 2003).

3.2 Parent-child relationships

Parents play an important role as managers of their children's experiences (Parke and Buriel, 2006). Because children usually have more expertise and utilize information technologies more often than their parents, these technologies may sometimes create conflict in their relationship (Mesch, 2006). In addition, the content adolescents post in cyberspace also creates problems with their parents (Madden, Lenhart, Duggan, Cortesi, and Gasser, 2013). High levels of parent-child conflict concerning internet activity relate to youths' aggressive behaviours online, the development of more online relationships, and internet addiction (Wolak, Mitchell, and Finkelhor, 2003).

3.3 Romantic relationships

Adolescents spend a considerable amount of time thinking about dating (Shulman, Davila, and Shachar-Shapira, 2011). Dating allows adolescents to learn about close relationships, how to interact romantically, and to explore how attractive they are. To assess how attractive they are, some adolescents upload pictures of themselves on SNS (Katzner, 2009). Adolescents consider attractiveness to be a major indicator of being popular on these sites (Siibak, 2009). Although good photographs may help boost their popularity, some adolescents report that someone has posted an embarrassing picture of themselves online without their permission (Lenhart and Madden, 2007).

3.4 Schools

Youths spend more time in school than in any other place except for their homes (Eccles and Roeser, 1999). From computers in the classroom to school-issued iPads, information technologies are a big part of the modern school experience. Access to such technology is not without risks and many occur in the school context. For instance, many youths are not able to determine the authenticity of online content that they use for school assignments (Flanagin and Metzger, 2010). In addition, excessive time spent online relates to truancy and poorer academic performance (Nalwa and Anand, 2003). Teachers are also at risk with many reporting being bullied online (Froese-Germain, 2008).

3.5 Sexuality

Sexuality is a “multidimensional process intimately linked to the basic human needs of being liked and accepted, displaying and receiving affection, feeling

valued and attractive, and sharing thoughts and feelings” (Murphy and Elias, 2006, p. 398). In adolescence, sexual experimentation and exploration are normal and healthy aspects of development (e.g., Tolman and McClelland, 2011). Along with their heavy usage of information technology, adolescents’ sexuality has become more digitized, which leads some to have a sophisticated understanding of the sexual complexities of the internet (Sorbring, Skoog, and Bohlin, 2014; Yan, 2006). Many youths report that they have viewed online content involving nudity, adult sexual activity, and child pornography (Madden et al., 2013). Youths have also received unwanted sexual solicitation (Jones, Mitchell, and Finkelhor, 2012), been asked sexual questions (Katzner, 2009), and received requests to send sexual pictures (Mitchell et al., 2007).

3.6 Identity

Synthesizing and integrating self-understanding, identity represents who a person is, and it is composed of many parts (e.g., spiritual beliefs, political beliefs; Eccles, 1999). Youths’ offline identities overlap with their online identities (Sudhramanyam et al., 2006). In the online world, identity is represented as youths’ characteristics (e.g., age, birthday). Research suggests that adolescents readily share their personal information online (Katzner, 2009). Adolescents also post fake information online and falsify their age in order to gain access to websites with age restrictions (Madden et al., 2013). Even though they may post fake information about themselves, adolescents are annoyed when they encounter fake profiles on SNS (Al-Jubayer, 2013).

3.7 Health and well-being

Forming healthy habits in childhood and adolescence delays or prevents premature disability and mortality in adulthood (Rabin, 2011). The health risks associated with internet overuse and addiction have been well-documented. In this literature, internet addiction relates to missing meals, sleep deprivation, poor grooming, and vision problems among adolescents (Chou and Hsiao, 2000). Furthermore, adolescents diagnosed with internet addiction reported social alienation, the dissolution of their friendships, and problems with their parents (Huang and Leung, 2009).

3.8 Morality

As children mature, they develop increasingly complex moral values, judgments, and behaviours (Waldmann, Nagel, and Wiegman, 2012). The information technology explosion has led to the concern that technology usage might undermine youths' moral values (Shin, 2008). Youths make moral decisions regarding the online content that they encounter. For instance, many adolescents download music, movies, and software illegally (McAfee, 2012). They are also exposed to racist or hate content, with most of this content involving hatred directed at ethnic, religious, or sexual minorities (Mitchell et al., 2007).

4 Previous online risks classification: Content-Contact-Conduct model (CCC)

Bringing together research across Europe, Hasebrink, Livingston, and Haddon (2009) developed the Content-Contact-Conduct (CCC) model to categorize, conceptualize, and understand youths' online risks. The model frames youths' online risks according to their communicative motivations and the role(s) they play when encountering these risks. The model includes three forms of communicative roles: Content (youth as recipient of unwelcomed or inappropriate mass communication), Contact (youth as participant in adult-initiated online activity), and Conduct (youth as perpetrator or victim in peer-to-peer exchanges). It also distinguishes aggressive, sexual, moral, and commercial risks and provides a useful organization of youths' risky online experiences. In our research, we were inspired by the CCC model, but it is based on a narrow definition of 'online risks'. Therefore, we propose our own classification, which is based on youths' perspectives and the broader conception of 'online problematic situations'.

5 Research goals

There are three main goals of this research:

- (1) We focused on describing the complexity of problematic situations online from European youths' perspectives. We asked: What do youths perceive as being potentially negative or problematic when using the internet?

- (2) We intended to create a new classification of problematic situations online based on youths' perspectives, using the Content-Contact-Conduct model as a foundation (Livingstone et al., 2011).
- (3) We aimed to interconnect youths' developmental contexts with their experiences of problematic situations online. Such interconnections might enrich the co-construction model (Subrahmanyam et al., 2006).

Our goal is to describe European youths' online experiences. Due to being outside the scope of this article, we did not examine cross-country comparisons.

6 Methods

6.1 Participants and sampling

Data collection was organized within the network of the EU Kids Online III project. The following European countries were included: Belgium, the Czech Republic, Greece, Malta, Italy, Portugal, Romania, Spain, and the United Kingdom.

Pilot focus groups and interviews were conducted with youths aged 9 to 16 years old from October 2012 to January 2013. There was at least one focus group and two interviews conducted per country (15 focus groups and 18 interviews in all). The pilot investigation was focused on testing the common topic and coding guide, which were discussed and updated at the EU Kids network meeting.

The main fieldwork using the revised coding and topic guides was carried out from February to September 2013. The average number of focus groups was six in each country; three focus groups included girls and three included boys with age distributions of 9–10 years, 11–13 years, and 14–16 years (two focus groups each). The average number of interviews was twelve in each country and six for each gender with the same age distribution as the focus groups. Youths were selected from at least three different schools (public/private, city/suburban/rural schools) and/or youth centers. In the schools or youth centers, researchers chose youths that use the internet at home at least several times per week. Youths used for the interviews were different from those included in the focus groups. There were 56 focus groups ($N = 254$) and 114 interviews ($N = 114$) conducted across the 9 countries (see Table 1 for an overview of data collection).

The present study received ethics approval from the LSE Research Ethics Committee (UK). Researchers fulfilled their countries' national ethics require-

ments. To fulfil these requirements, participants were informed about the research in an understandable way. Youths, parents, and directors of schools and youth centers provided their written informed consent.

6.2 Data collection

A common topic guide with lists of questions was used across the nine countries. The recommended length for a focus group was 80 minutes and 40 minutes for an interview (see Table 1). During focus groups and interviews, researchers asked: what youths perceive as being potentially negative or problematic while using the internet, what risks and consequences youths are aware of when using the internet, how youths react to, avoid, or prevent negative experiences, why youths perceive certain situations as negative, and how youths evaluate situations that adults consider potentially problematic.

6.3 First level of coding

Focus groups and interviews were transcribed in the national language of each country (9 languages). The first level of coding was focused on condensed descriptions of the material in the English language (Rennie, Phillips, and Quartaro, 1988). First-level codes were self-explanatory descriptions concerning the whole material with the exception of the parts not relevant to the research. Codes included the context of the situation and distinguished who experienced the situation (e.g., the child, someone the child knew, from the media). If necessary for understanding, interviewers' questions were coded as well. The total number of the first-level codes was 26,696.

From each coded focus group and interview, researchers translated the relevant paragraphs to determine the 5 to 10 most interesting passages and to clarify passages where the meaning of the codes was hard to understand. The translated parts (total of 1,432) were highlighted and stored in a separate file. Two researchers independently coded at least two of the same transcripts, merged their coding into one file, discussed differences in their coding, and sent results for verification to the coordinator. The coordinator reviewed the documents according to the coding manual to ensure the quality of the coding procedure across the countries. After verification, researchers coded all materials independently and sent the coded material to the coordinator.

Table 1: Overview of data collection in nine European countries (EU Kids Online III).

Countries	Focus groups			Interviews			Schools		Characteristics of schools or youth centers
	Number of groups	N (males + females)	Average duration	Number of interviews	N (males + females)	Average duration	Number of schools or youth centers		
Belgium	6	36 (17 + 19)	69 min	20	20 (9 + 11)	30 min	1 school + 3 youth centers	Catholic and public schools, youth centers	
Czech Republic	6	25 (15 + 10)	80 min	12	12 (7 + 5)	40 min	5	All public: 2 rural schools, 1 suburban, 2 in cities	
Greece	6	26 (13 + 13)	88 min	8	8 (3 + 5)	40 min	3	2 public, 1 private (all in the capital)	
Malta	6	27 (13 + 14)	95 min	12	12 (6 + 6)	44 min	18	6 public, 9 church, 3 private	
Italy	6	30 (15 + 15)	85 min	12	12 (6 + 6)	42 min	3	All public: 1 urban, 2 suburban	
Portugal	6	22 (10 + 12)	66 min	12	12 (6 + 6)	50 min	3	All public and suburban	
Romania	8	28 (14 + 14)	80 min	11	11 (5 + 6)	40 min	6	All public	
Spain	6	30 (15 + 15)	77 min	12	12 (6 + 6)	60 min	4	1 public urban; 1 public semirural; 2 private religious urban	
United Kingdom	6	30 (15 + 15)	90 min	15	15 (8 + 7)	43 min	5		
Summary	56	254		114	114		51		

6.4 Second level of coding

Because the material collected in the first level of coding was extremely large, thematic analyses procedures were applied (Feredey and Muir-Cochrane, 2006). The following areas were covered in the second level of coding:

- Research area: problematic situation experience, problematic situation impact, problematic situation awareness, preventative measures, online activities, mediation, literacy, opportunities, researchers' comments, off-topic.
- Platform: SNS, e-mail, pop-ups, websites, chats and messages, video platforms, games and virtual worlds, online phone and video, school platforms, boards and forums, mobiles and tablets.

Because providing detailed descriptions of the coded areas is beyond the limits of this article, we created the 'definition file',¹ which was used for a general understanding of the codes. Five research assistants from the Czech team coded first-level codes for all countries. The reliability of coding across the coders was ensured with a Kappa of .70 for each category.

6.5 Analytic procedure

For the purpose of this article, we analyzed the research area of 'problematic situation', which covers children's personal and indirect unpleasant or problematic experiences. Researchers used NVivo to sort, print, and then create clusters from all experiences. All together there were 5,175 first-level codes and 1,341 translated sections analyzed. In the analyses, researchers created clusters of problematic situations and their dimensions, which are described next.

7 Results

7.1 Dimensions of online problematic experience

Before we start describing our classification of online problematic situations, we will explain the dimensions identified across these situations. These dimensions clarify the broadness and proposed classification of youths' experiences. The following dimensions were identified:

¹ Definitions of the second-level coding: <http://fss.muni.cz/~smahel/eukodef2013.docx>.

- Youth characteristics – demographic characteristics (e.g., age, gender, race), psychological characteristics, developmental contexts, role in the situation (i.e., victim, bystander, aggressor).
- Online content dimensions – personalized versus impersonalized content (i.e., mass commercial e-mails without names, content with the name of person), wanted versus unwanted content (if youths were searching for the content they wanted or if it came to them unintentionally), form of the content (e.g., text, voice, video).
- Characteristics of the person or people with whom youth communicate: demographic characteristics, form of communication, verbal versus non-verbal communication (non-verbal typically between avatars, including cursing, fighting), communication with known person/people versus unknown person/people.

For each online situation, the impact can range from positive to negative and from pleasant to harmful. For instance, experiencing sexualized comments on Facebook may be pleasing for some youths but bothersome for others. Perceptions of situations also vary depending on whether the individuals are known people or strangers. Based on our results, youths usually do not perceive someone as a stranger when they have communicated online with him or her four or five times.

The experience of problematic situations is multi-dimensional. Therefore, we re-grouped the dimensions based on our theoretical assumptions. We decided to classify dimensions into (1) Content and Communication and (2) Youths' developmental contexts (see Table 2). Next, we describe the clusters of online problematic situations in the context of youths' development.

Table 2: Classification of youths' online problematic situations.

Context of development	Content	Communication
Relationships – Peers & friendship	Vulgar content shared with peers. Viruses automatically sending spam e-mails or viruses to friends.	Hate, vulgar and nasty messages. Bullying by peers or strangers. Creating fake SNS profile about somebody. Exclusion from a group in games. Being killed or cursed in games. Hacked SNS or game profile by peers.
Relationships – Romantic relationships	Advertisements for dating sites (including sexual or vulgar content).	Reporting fake romantic relationships. Publishing sexual pictures of previous partner as 'revenge'. Publishing attractive pictures to attract peers. Meeting online strangers for dating purposes.
Relationships – Parents	Seeing inappropriate content without parents' permission.	Parent-child conflicts because of the internet. Parents force child to be offline because of addiction. Posting rude or vulgar comments about parents.
School	Untrue information from the internet used for school assignments. School problems because of technology (i.e., viruses, slow internet).	Offensive comments about teachers or creating fake profiles of teachers. School problems after being online too much.
Sexuality	Commercials with sexual content (Youtube, games, web, pop-ups, e-mail). Pornographic material. Sexual pictures or videos on the web (Ask, Chatroulette). Watching live pornography. Viruses put pornography on computers or SNS.	Sexual communication, requests, and comments. Bullying with sexual content. Intentional publishing of sexual pictures to attract peers in order to get likes. Shared revenge porn or virtual sex.

<p>Identity & personal data</p>	<p>Pop-ups or webpages asking for personal data. Viruses automatically sending e-mails or posting stuff or messages on Facebook.</p>	<p>Stolen/sharing virtual identity (e-mail, SNS profile, avatar). Hacked or hijacked account and posting untrue or private information. Pretending to be someone else (e.g., celebrities, known people, not existing people). Lying about personal data. Sharing personal data (e.g., address, phone number, photos, etc.) or too many private details. Requests for personal information from strangers. Meeting online strangers offline.</p>
<p>Health & well-being (included addiction)</p>	<p>Overuse or addiction problems, including headaches, reduced eating, reduced sleeping, losing friends, eye problems. Seeing pro-anorexia web sites. Preoccupation by nasty/sexual videos or gaming.</p>	<p>Emotional problems after bullying or bothering contact. Losing contact with reality.</p>
<p>Morality</p>	<p>Racist content. Illegal activities, like downloading programs, movies, and music. Videos with violence. Finding untrue or false information. Commercials telling you to buy, download, or win something. Vulgar, nasty, hate websites, images, videos.</p>	<p>Racist messages. Sharing illegal materials (e.g., programs, movies, music) in P2P networks. Fake e-mails telling you that you can win something. Commercial e-mails.</p>

7.2 Relationships with peers and friends

Online problematic situations reported by youths are often associated with their peers or friends. Youths usually shared vulgar or sexual materials via SNS, e-mail, mobile phones, or Youtube links. They also received viruses on their computers or SNS, which then sent content to their peers or friends. For example:

- R1: *“Yes, that was a virus. I got a virus on my Twitter, and they were like ...*
 R2: *... she was sending me, like, really horrible messages. I was, like, what the ...?*
 R1: *Like, nasty messages. It wasn’t me. It wasn’t me.*
 I: *So it looked like R1 was sending R2 really horrible messages ...”* (UK FG, girls, 13–14 years)

Youths’ online communication with their peers and friends involved cyberbullying, which included receiving, seeing, or sending hateful, vulgar, or nasty messages and as victims, bystanders, or aggressors. Such behavior is reported across all platforms and around two thirds of these situations occurred through SNS.

“Something dirty happened on my Facebook. I was chatting with a classmate. I was chatting with this boy; I’m not going to tell his name. And he says to me, ‘I have to tell you something.’ So I asked, ‘What is it?’ And ... well ... I didn’t expect that something was wrong, I thought he would tell me something funny. And suddenly he says: ‘It’s something to do with puberty, something came out of my ...’” (Belgium FG, girls, 10–11 years)

Similar to online bullying, youths reported online problematic situations involving their avatars (virtual representations) in games. They experienced exclusion from the group (so-called ‘clan’) in games, and repeated cursing or killing of their avatars, which was against the game’s rules.

“I used to be bullied on the Clash of Clans. So in general, I didn’t like the club anymore, so I was following a thread on ‘I’m looking for a clan.’ And then suddenly they said: ‘Benj, you are too young for this clan, go away!’” (Belgium FG, boys, 11 years)

“My classmate, she told me someone had cursed at her during an online game and she ... in turn cursed at him and ... em but I ... only if they

really mean it, but if they just call you stupid, handicapped, I don't ... answer." (Romania FG, boys, 12 years)

Youths also reported hacking of their SNS or gaming profiles by their peers, which was occasionally perpetrated as revenge for offline activities. Because this type of situation overlaps with the 'Identity and Personal Data' context, we describe it more in that section.

7.3 Romantic relationships

Online problematic situations also occurred in the context of romantic relationships. Concerning content, youths reported being bothered by advertisements for dating sites, which sometimes included sexual or vulgar content. Older adolescents also used the internet for dating and communication with strangers, but nobody from our sample reported having a bad experience with online dating.

"If the girl is not nice, bye-bye! We don't talk any longer. If she's nice, we meet her. We arrange to go out and meet those people. The first time we did that, we went ... for instance, I dated the girl I found, my friend dated the other, and the other as well! Then we were always going out on weekends." (Portugal FG, boys, 13–15 years)

Despite not having these experiences, most youths in our sample were aware of the dangers associated with online dating. One girl explained her thoughts about an indirect experience:

"... then you see young girls who go out with adults ... and also adults who write, 'Hi sweetie, let's meet offline,' and so on. And then these girls accept to meet them and are raped – I mean sexual abuse is never right, but I claim: 'What are you doing to yourself? Why did you accept to meet a stranger who contacted you on Facebook?'" (Italy FG, girls, 14–16 years)

The most commonly reported problematic direct experience was related to youths' attempts to attract peers through attractive or sexual pictures typically displayed on SNS. Such behavior is also connected to their sexuality.

"There are some people, girls I know, who upload their photos to catch the attention of guys ... most of these girls do it, or I have heard they do

it; they have posted photos so you pay more attention to them, or their boyfriends like it.” (Spain INT, girl, 16 years)

Another online problematic situation typically related to SNS usage is reporting fake romantic relationships and publishing unwanted or sexual pictures of previous partners as revenge. Such situations are perceived as very bothering and, in the case of sharing sexual pictures, can even create conflicts with the law.

“She sent a photo like that, without clothes on, to a friend of mine, a boy. Well, I don’t know the girl, I’ve just spoken to her a few times, and the boy was a friend of mine. I don’t know what happened, and the boy, of course, out of revenge, put the photo up. Her photo naked. On Tuenti.” (Spain FG, girls, 11–13 years)

7.4 Relationships with parents

Problematic situations associated with youths’ parents include seeing inappropriate content without parents’ permission or awareness.

“... I think it would be sexual contact ... because my mum doesn’t really want me to see that, she will want me to just play my other games or something like that.” (UK INT, boy, 12 years)

Youths’ reported having conflicts with their parents over their internet usage, particularly, if they were online too long or their parents restricted their activities on the internet. Some parents do not allow their children to have a Facebook account:

“Yes, once I created an account without them knowing (parents) and they caught me as my brother revealed it. ... I had Facebook for about three months and they didn’t realize.” (Malta FG, boys, 14–16 years)

Another source of conflict includes parents spying on youths. For example, many parents view their children’s Facebook profiles:

“I have caught my mother looking at my FB and my sister’s. Watching all our things. I saw her once looking at my sister’s FB and later she would

ask her, ‘Who’s that who was doing so and so?’ I think that behavior does not respect our privacy, she doesn’t trust us.” (Spain FG, boys, 11–13 years)

7.5 School

Youths reported finding untrue information or having technical problems with computers. They were also annoyed by finding information online that was untrue or unrelated to the topic.

“Sometimes I have found false information on Wikipedia. Because I was looking for a thing and I wanted to do a presentation about Switzerland. So I went to Switzerland, and I saw the number of inhabitants was ... let’s say 1,200. And later I went in again and it said a different number. And so I didn’t know what to do. And in the languages that they talk, it said Chinese, I don’t know ... I was surprised because I knew it was French, German, and English ... So sometimes on Wikipedia you find things which aren’t true.” (Spain INT, girl, 10 years)

Respondents reported situations in which they perpetrated negative behaviors directed at teachers, including writing nasty comments. One youth reported the following example:

“... the anonymous administrator published the offensive posts about teachers, but then those who ‘liked’ the post were not anonymous, when one likes something you see his name ... Some teachers were seriously offended ... others were something like, ‘Prof. X is the school’s idol’.” (Italy INT, girl, 16 years)

7.6 Sexuality

Problematic situations within the context of sexuality included youths’ descriptions of seeing sexual content on the internet. Youths’ saw commercials and received viruses with sexual content. They also saw pornographic or sexual materials through videos, pictures, or texts with most occurring via SNS and in games:

“I once had. I wanted to play a game. But there is always first a commercial, and it was with a man in his underpants, and at first it was like he

was looking away. I think it was very weird, and suddenly he took his underpants off ...” (Belgium FG, girls, 10–11 years)

Youths reported bullying and posting or sharing sexual content as revenge or sexualized communication. Such sharing typically occurred through SNS and usually involved youths trying to get others interested in them. They also explained that some of their peers posted private material to receive ‘likes’ from others.

“I’ve seen cases, girls I know and they’re around 10, 9 years old, 12 tops, who upload almost naked pictures of themselves on Facebook just to get likes.” (Romania INT, girl, 12 years)

Some youths posted sexual, private content without the owner’s permission. These cases are reported on a continuum from innocent misunderstandings to serious cases involving somebody sharing content as revenge. One youth described a story in which another girl was bullied with nude pictures because she shared her Facebook password:

“No ... I’ve never ... or yeah, well, there was this girl and she had ... Yeah, she was a friend of mine, and she sent a naked picture to her boyfriend. And she told us her Facebook password at the party that was going on at the moment in my house. And some of my friends went to her Facebook profile a few months later, and there they found out about this picture. And then the girl was bullied.” (Belgium INT, girl, 16 years)

7.7 Identity

Problematic situations regarding identity and personal data involved: sharing or stealing virtual identities and lying about or inappropriately sharing personal data. Other situations included someone pretending to be somebody else, hacking, and hijacking accounts. Youths were also bothered by e-mails or pop-ups, which try to get personal data from them. Some youths shared their passwords for their Facebook or game accounts with their friends or family members. This behavior is sometimes perceived as ‘cool’, but it can result in bullying as described in the previous section. Such situations are more bothersome, and unpleasant when they involve hacking or hijacking.

“I had a FB profile but it was hacked and, like, I had 900 friends or so, and now, about a week ago, I opened a new one and now I have about

500! They logged into my profile; basically, they changed my password and I couldn't log in ..." (Greece INT, girl, 14 years)

"I was chatting with my cousin and when I came back the next morning I saw that the chat was still open ... and someone had sent a message to her and pretended to be me ... and I had to tell her it wasn't me." (UK FG, girls, 11–12 years)

Other issues included lying about personal data or sharing personal information. Facebook was the main platform youths used for posting personal information and lying about their age. One main reason for lying about their age through Facebook is that many respondents were not thirteen years old, the minimum age needed to set up a Facebook account.

"I don't know, I know it wouldn't let me do it and I didn't enter my real age, I filled in 1990 because I didn't know what the minimum age was." (Romanian INT, girl, 15 years)

7.8 Health and well-being

Problematic situations connected to health and well-being involved addiction to SNS and online games. Youths described addiction as losing interest in other activities and spending a lot of time online. The following is an example of a youth describing his addictive behavior:

"I spent between 8 to 12 hours daily online, lost all my friends because of this online addiction. Then I had depression." (Czech INT, boy, 15 years)

In the context of health, youths reported seeing pro-anorexia or bulimia web sites, which can influence their body image or perception of physical beauty.

"I have met people with eating disorder problems and I know that the internet is not a factor that helps. Today there is this idea of physical beauty etcetera that young people try to achieve, and the internet is a way to expose that image even more." (Portugal INT, girl, 16 years)

Problematic situations linked with online communication could lead to losing contact with reality. Youths explained that they have their own online world, different from adults.

“I joined an online story writing club and almost lost contact with reality. I lived in the virtual world.” (Romania INT, girl, 16 years)

Youths also reported several impacts of viewing sexual or violent content (e.g., nightmares) and addiction, including sleeping problems and losing friends. We do not describe these problems in detail because these are consequences of internet overuse rather than problematic situations.

7.9 Morality

The context of morality is represented in youths’ reports of viewing rude or racist content as bystanders. Youths saw racist content in videos, images, and comments. They explained that these situations were unpleasant.

“On Ketnet she said things like: ‘Mbokani is a monkey, he should go back to the zoo!’ It’s the soccer player from Anderlecht [famous Belgian soccer team] ... And she was insulting Mbokani, although he’s a very good soccer player.” (Belgium INT, boy, 9 years)

The context of youths’ morality also includes illegal activities, which could cause problems with the law. Many youths reported downloading games, videos, and music illegally. Youths perceived this activity as generally useful, a way to save money and time, and not problematic.

“I think that ... it’s quite useful (illegal downloading). It can be useful, as well, but ... it’s illegal ... Ahm ... music, for instance. Ahm ... if we were to buy all the albums that we want, we would ... we would have to be rich for that ...” (Portugal INT, boy, 13 years)

Other problematic situations involve encountering online content that is violent, vulgar, nasty, and hateful. Youths mentioned that they viewed violent content with people and animals. Such content can also be shared with peers as we reported in the peer relationships section.

Viewing and receiving fake information through commercials and e-mails are other problematic situations, which can impact youths’ morality and values because it could give the impression that sending untrue and fake information is the norm on the internet. Youths explained that they are sometimes unable to recognize if the commercial or e-mail is from a real person and some e-mails may be from unknown people.

“It was something with, it came from some unknown person. He had sent an e-mail to me. It was something about Sarah, a girl from a certain age, and she had like 6 knives in her back, and things like that.” (Belgium INT, girl, 14 years)

Commercials and pop-ups on websites are also bothersome to youths. Youths described instances of commercials moving so that you cannot turn them off and commercials saying that you won something and to click on them.

“I’m always getting this one: You just won a tablet. Well, I just say, screw that, I ignore the ads. Well, it’s kind of weird, when I want to click on something, the ad moves over there and it always does that, it’s shitty.” (Czech Republic INT, boy, 12 years)

8 Discussion

In our research, we revealed the broadness of European youths’ experiences with problematic situations online. In the following section, we will interconnect these online experiences to youths’ developmental contexts.

8.1 Problematic situations in the developmental context

Given the amount of time youths spend with their peers, it is not surprising that many of the online problematic situations they encounter involve their friends and peers (Parker et al., 2006). Through a variety of platforms, youths’ friends and peers sent them violent, vulgar, or sexual content. Such content is prevalent on the internet, making youths concerned with it (Livingston et al., 2013). Just as face-to-face bullying is widespread in youths’ lives, they also received, sent, and/or witnessed hateful, vulgar, or nasty messages. A unique and bothering problematic situation that youths reported was being killed, cursed, excluded, and/or verbally assaulted in online games. Research indicates that youths prefer to play games with others and therefore being excluded or killed by other players in these games may be distressing as groups (i.e., clans, guilds) are essential elements in online gaming communities (Ducheneau, Yee, Nickell, and Moore, 2007). Such online bullying is analogous to nonverbal forms of offline bullying.

One developmental task for adolescents is developing romantic relationships. Therefore, it was not surprising that we found that youths were aware

of the dangers associated with online dating (Shulman et al., 2011). Another unique finding was that youths were bothered by dating site advertisements with sexual or vulgar content. Another way that online problematic situations impact the developmental context of romantic relationships is that youths reported posting attractive or sexual pictures in an effort to attract their peers, which is consistent with previous research (Katzner, 2009; Siibak, 2009). Adolescents' involvement in romantic relationships is sometimes linked to popularity (Carlson and Rose, 2007). Consequently, some adolescents may report being involved in these relationships through the cyber context. This does indeed occur online, but some youths reported being bothered by this in our study. Another area of concern was sharing unwanted or sexual pictures of previous partners as revenge. Although there is concern with revenge porn, little empirical evidence exists on this phenomenon among adolescents (Levendowski, 2013). Follow-up research should be undertaken to understand adolescents' involvement in revenge porn.

With children's increasing usage of information technologies, conflicts occur between parents and their children over the amount of time their children spend online and the type of content children view (Mesch, 2006). Youths reported that their parents restricted their ability to create SNS, argued with them about being addicted to the internet, invaded their privacy, and spied on them. It seems that some youths tend to create their online identities separate from their parents' world. Such behavior is related to the developmental need of autonomy (Parker et al., 2006). Although parents invading youths' privacy and spying on them is not new in the offline world, less attention has been given to this topic in the online world. In addition, youths experienced conflicts with their parents over the content they posted online, which is consistent with previous research (Madden et al., 2013). Taken together, these findings revealed that youths regularly experience conflict with their parents over their technology usage and that the internet sometimes serves as a private world separate from family.

As youths become increasingly immersed in information technologies, these devices become important sources of finding knowledge. In our research, youths encountered untrue information while completing schoolwork. Youths are not adept at identifying credible online sources, and many in our study reported using untrue information for their school assignments (Flanagin and Metzger, 2010). Research should expand on our findings as youths are bothered by such experiences. Consistent with previous research findings on teachers' experiences with cyberbullying, some youths admitted to bullying their teachers online or knowing about such occurrences (Froese-Germain, 2008). Youths spend a great deal of time in school and combined with their heavy usage of

information technologies, these two contexts are likely to overlap. Such a proposal was supported by our participants' responses.

Youths' exposure to online sexual content occurs often (Yan, 2006). Consistent with the literature (e.g., Katzer, 2009; Livingstone, Kirwil, Ponte, and Stakrud, 2013), our findings further suggest that youths are exposed to pornography and sexual materials through a variety of platforms. These situations are considered very problematic especially among children. Unique in our study was the finding that many youths reported sexualized communication with peers and also sharing their own pictures or videos with peers in order to get others interested in them or to receive 'likes'. Such sexualized communication between youths is natural and in line with their developmental tasks.

An area in the literature on problematic situations, which has received little attention, is identity and personal data. Identity in the digital world usually involves youths sharing personal data (Subrahmanyam et al., 2006). In our research, we found that youths shared personal information online, which is consistent with the literature (Katzer, 2009). However, some were concerned with people lying about such information. Youths also shared their passwords to their Facebook or game accounts with their family members and friends. They did not perceive this behavior as risky, despite many reporting that someone had changed or misused their personal information.

Consistent with previous research (e.g., Chou and Hsaio, 2000), many youths reported consequences of internet addiction, such as headaches, eye problems, sleeping problems, losing friends, etc. Our findings also suggested that youths recognized what technology addiction is by describing the symptoms, including losing interest in other activities and losing contact with reality.

Based on our findings, it is unclear whether information technologies reduce youths' moral values (Shin, 2008). However, it is clear that youths do engage in unlawful activities, such as downloading illegal games, videos, and music. Furthermore, youths encountered racist or hateful content through videos, images, or comments on blogs or discussion forums. Such experiences are frequently reported in other studies (Mitchell et al., 2007). Another online problematic situation reported by youths is encountering fake information through commercials, pop-ups, and e-mail. Findings from Livingstone and colleagues (2013) support these results, but the specific content risks associated with commercials, pop-ups, and e-mails were not described. Our findings contribute to the literature by revealing content that bothered youths through commercials, pop-ups, and e-mails. We suggest that follow-up research in this area is needed.

8.2 New classification in the context of the Content-Contact-Conduct (CCC) model

In our proposed classification, we used the conception of ‘problematic situations online’, which is broader than the conception of ‘online risks’ in the CCC model as described in the introduction. We enriched the CCC model by examining broader problematic experiences from youths’ perspectives. From the CCC model, the axes of Content, Contact, and Conduct were simplified to Content and Communication in our model because we found that youths did not differentiate between problematic situations involving communication with adults (Contact) and communication with peers (Conduct). Furthermore, they were sometimes unsure about the age of individuals who they communicated with online. We also enriched the CCC model by linking youths’ developmental contexts to their experiences of online problematic situations. However, there are some limitations of this model as some boundaries are blurred (i.e., sexuality can be interconnected with romantic relationships) and several problematic situations impact various developmental contexts. For example, sexualized comments from a peer can impact the developmental contexts of peer relationships, romantic relationships, and sexuality.

8.3 Limitations and future direction of research

One limitation of this research is the methodological problems associated with cross-culture qualitative research. Although all researchers used standardized interview guides and coding guides, attended meetings, had online conversations, and exchanged hundreds of e-mails, the different ages, gender, social status, communication styles, and research interests of different researchers in nine countries might have influenced the interviews and focus groups. Similarly, the first level of coding in the researchers’ national languages might have created differences in their decision about these codes in English. Therefore, comparisons across countries are difficult, and we made the decision not to include cross-culture interpretations in this article. In future work, cross-culture comparisons should be made with smaller groups of researchers from fewer countries.

Another limitation of this study is that not all European countries were involved. Youths from other European countries might encounter different online problematic situations, which were not described in our research. In particular, we did not include northern European countries (i.e., Norway, Sweden). Follow-up research with youths from these countries is important as they are

distinct from the rest of Europe due to their high exposure to risks and parental mediation (Helsper, Kalmus, Hasebrink, Sagvari, and Haan, 2013).

We acknowledge that the associations between online problematic situations and developmental contexts are based on our interpretations. These relationships were not described directly by youths. Thus, these interconnections were more of a proposal used to understand youths' online problematic situations. There might also be some problematic situations online, which impact other developmental areas. In future research, these relationships and other developmental areas (i.e., online civic participation) should be further examined and validated.

Future research could also focus on areas mentioned often by youths but were under-researched in our perspective. These areas include personal data problems, nonverbal bullying and exposure to sexual materials in online games, illegal downloading, and problematic situations related to commercial materials.

8.4 Policy recommendations

Our research shows the variety of online problematic situations that youths' experience. However, we believe that most of the current prevention programs are narrowly focused, usually on cyberbullying, personal data protection, and meeting online strangers offline. Based on our findings, youths need a more thorough education about the online world to help them better evaluate and deal with an assortment of problematic situations. We also showed that online problematic situations are related to developmental contexts. Therefore, these associations should be included in educational programs. Such programs should be on-going and have different curricula based on youths' ages and country of origin.

Based on our findings, not every problematic situation online is risky or causes harm to youths. If youths continue to use the internet and technologies, they may not be able to avoid online problematic situations. Therefore, it is not wise to forbid youth from searching for romantic partners online because it is a developmental need and can potentially bring something positive to their lives. Instead of forbidding or scaring youths concerning online situations (e.g., dating), parents, educators, and researchers should discuss online experiences with youths and teach them about the possible problematic situations they may encounter and how to avoid harm.

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References

- Al-Jubayer, S. M. 2013. Use of social networking sites among teenagers: A study of Facebook use in Dhaka City. *Journal of International Social Issues*, 2(1), 35–44.
- Carlson, W., & Rose, A. J. 2007. The role of reciprocity in romantic relationships in middle childhood and early adolescence. *Merrill-Palmer Quarterly*, 53(2), 262–290.
- Chou, C., & Hsiao, M. C. 2000. Internet addiction, usage, gratification, and pleasure experience: The Taiwan college students' case. *Computers & Education*, 35(1), 65–80.
- Cohn, L. D., Macfarlane, S., Yanez, C., & Imai, W. K. 1995. Risk-perception: Differences between adolescents and adults. *Health Psychology*, 14(3), 217–222.
- Ducheneaut, N., Yee, N., Nickell, E., & Moore, R. J. 2007. The life and death of online gaming communities: A look at guilds in World of Warcraft. In R. Grinter, T. Rodden, P. Aoki, E. Cutrell, R. Jeffries & G. Olson (Eds.), *Proceedings of the SIGCHI conference on human factors in computing systems* (pp. 839–848), April. New York: ACM.
- Eccles, J. S. 1999. The development of children ages 6 to 14. *The Future of Children*, 9(2), 30–44.
- Eccles, J. S., & Roeser, R. 1999. School and community influences on human development. In M. Bornstein & M. Lamb (Eds.), *Developmental psychology: An advanced textbook* (pp. 3–45). Mahwah: Lawrence Erlbaum Associates.
- Fereday, J., & Muir-Cochrane, E. 2006. Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. *International Journal of Qualitative Methods*, 5(1), 80–92.
- Flanagin, A., & Metzger, M. 2010. *Kids and credibility: An empirical examination of youth, digital media use, and information credibility*. Cambridge: MIT Press.
- Froese-Germain, B. 2008. Bullying in the digital age: Using technology to harass students and teachers. *Our Schools/Our Selves*, 17(4), 45–54.
- Greenfield, P. M. 1984. *Mind and media*. Cambridge: Harvard University Press.
- Hasebrink, U., Livingstone, S., Haddon, L. 2009. *Comparing children's online opportunities and risks across Europe: Cross-national comparisons for EU Kids Online*. London: EU Kids Online.
- Helsper, E. J., Kalmus, V., Hasebrink, U., Sagvari, B., & de Haan, J. 2013. *Country classification: Opportunities, risks, harm and parental mediation*. London: EU Kids Online.
- Huang, H., & Leung, L. 2009. Instant messaging addiction among teenagers in China: Shyness, alienation, and academic performance decrement. *CyberPsychology & Behavior*, 12(6), 675–679.
- Jones, L. M., Mitchell, K., & Finkelhor, D. 2012. Trends in youth internet victimizations: Findings from three youth internet safety surveys. *Journal of Adolescent Health*, 50(2), 179–186.
- Katzer, C. 2009. Cyberbullying in Germany. *Journal of Psychology*, 217(4), 222–223.

- Law, D., Shapka, J., & Olson, B. 2010. To control or not to control? Parenting behaviours and adolescent online aggression. *Computers in Human Behavior*, 26(6), 1651–1656.
- Lenhart, A., & Madden, M. 2007. *Teens, privacy & online social networks: How teens manage their online identities and personal information in the age of MySpace*. Retrieved January 11, 2014 from <http://www.pewinternet.org/2007/04/18/teens-privacy-and-online-social-networks/>.
- Levendowski, A. M. 2013. Using copyright to combat revenge porn. *NYU Journal of Intellectual Property & Entertainment Law*, 3, December, 1–28.
- Livingstone, S., Haddon, L., Görzig, A., & Ólafsson, K. 2011. *Risks and safety on the internet: The perspective of European children*. London: EU Kids Online.
- Livingstone, S., Kirwil, L., Ponte, C., & Staksrud, E. 2013. *In their own words: What bothers children online? With the EU Kids Online Network*. London: EU Kids Online.
- Madden, M., Lenhart, A., Duggan, M., Cortesi, S., & Gasser, U. 2013. *Teens and technology 2013*. Retrieved January 11, 2014 from http://www.pewinternet.org/~media/Files/Reports/2013/PIP_TeensandTechnology2013.pdf.
- McAfee. 2012. *The digital divide: How the online behaviour of teens is getting past parents*. Retrieved January 11, 2014 from <http://www.mcafee.com/uk/resources/misc/digital-divide-study.pdf>.
- Mesch, G. S. 2006. Family characteristics and intergenerational conflicts over the internet. *Information, Communication and Society*, 9(4), 500–522.
- Mitchell, K., Sabina, C., Finkelhor, D., & Wells, M. 2009. Index of problematic online experiences: Item characteristics and correlation with negative symptomatology. *CyberPsychology & Behavior*, 12(6), 707–711.
- Mitchell, K., Wolak, J., & Finkelhor, D. 2007. Trends in youth reports of unwanted sexual solicitations, harassment and unwanted exposure to pornography on the internet. *Journal of Adolescent Health*, 40(2), 116–126.
- Murphy, N. A., & Elias, E. R. 2006. Sexuality of children and adolescents with developmental disabilities. *Pediatrics*, 118(1), 398–403.
- Nalwa, K., & Anand, A. P. 2003. Internet addiction in students: A cause of concern. *CyberPsychology & Behavior*, 6(6), 653–656.
- Parke, R. D., & Buriel, R. 2006. Socialization in the family: Ethnic and ecological perspectives. In W. Damon & N. Eisenberg (Eds.), *Handbook of child psychology: 3. Social, emotional, and personality development* (pp. 429–504). Hoboken: John Wiley & Sons.
- Parker, J., Rubin, K. H., Erath, S., Wojslawowicz, J. C., & Buskirk, A. A. 2006. Peer relationships and developmental psychopathology. In D. Cicchetti & D. Cohen (Eds.), *Developmental psychopathology: Risk, disorder, and adaptation* (2nd ed.), Vol. 3 (pp. 419–493). New York: Wiley.
- Rabin, M. 2011. Healthy habits: Some thoughts on the role of public policy in healthful eating and exercise under limited rationality. In A. Oliver (Ed.), *Essays in behavioral public policy* (pp. 115–139). New York: Oxford University Press.
- Rennie, D. L., Phillips, J. R., & Quartaro, G. K. 1988. Grounded theory: A promising approach to conceptualization in psychology. *Canadian Psychology*, 29(2), 139–150.
- Shin, J. 2008. Morality and internet behavior: A study of the internet troll and its relation with morality on the internet. In K. McFerrin et al. (Eds.), *Proceedings of society for information technology & teacher education international conference 2008* (pp. 2834–2840). Chesapeake: AACE.

- Shulman, S., Davila, J., & Shachar-Shapira, L. 2011. Assessing romantic competence among older adolescents. *Journal of Adolescence*, 34(3), 397–406.
- Siibak, A. 2009. Constructing the self through the photo selection – Visual impression management on social networking websites. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 3(1), article 7.
- Smahel, D. 2003. Komunikace adolescentů v prostředí internetu [Czech adolescents' communication on the internet]. *Československá psychologie*, 47(2), 144–156.
- Sorbring, E., Skoog, T., & Bohlin, M. 2014. Adolescent girls' and boys' well-being in relation to online and offline sexual and romantic activity. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 8(1), article 7.
- Subrahmanyam, K., & Smahel, D. 2011. *Digital youth: The role of media in development*. New York: Springer.
- Subrahmanyam, K., Smahel, D., & Greenfield, P. 2006. Connecting developmental constructions to the internet: Identity presentation and sexual exploration in online teen chat rooms. *Developmental Psychology*, 42(3), 395–406.
- Tolman, D. L., & McClelland, S. I. 2011. Normative sexuality development in adolescence: A decade in review, 2000–2009. *Journal of Research on Adolescence*, 21(1), 242–255.
- Valkenburg, P., & Peter, J. 2007. Preadolescents' and adolescents' online communication and their closeness to friends. *Developmental Psychology*, 43(2), 267–277.
- Waldmann, M. R., Nagel, J., & Wiegmann, A. 2012. Moral judgment. In K. Holyoak & R. Morrison, *The Oxford handbook of thinking and reasoning* (pp. 364–389). New York: Oxford University Press.
- Wolak, J., Mitchell, K., & Finkelhor, D. 2003. *Internet sex crimes against minors: The response of law enforcement*. Alexandria: National Center for Missing & Exploited Children.
- Yan, Z. 2006. What influences children's and adolescents' understanding of the complexity of the internet? *Developmental Psychology*, 42(3), 418–428.