

European Workshop  
**Perspectives of Web 2.0 for Citizenship Education in Europe**

7 - 9 April 2011  
Brno, Czech Republic

# Input

## **Digital Disconnect: Issues of Social Exclusion, Vulnerability and Digital (Dis)engagement**

**by Ellen J. Helsper**

London School of Economics and Political Sciences (United Kingdom)

In this paper I will first set out the theoretical and political history of the debate around digital exclusion and divides and explain why it is relevant for those wishing to tackle barriers to online civic engagement. After a section on theory and policy the paper describes in a bit more detail why we do not know enough about the most vulnerable groups in society as regards their (dis)engagement from Information and Communication Technologies (ICTs). This is illustrated by using 5 case studies of different vulnerable groups based on research and intervention oriented projects that have been conducted over the last decade. The conclusions focus on the main hurdles for successful initiatives that hope to engage and educate the most vulnerable in society through the internet and related ICTs.

### **The theoretical and policy history of digital exclusion**

Digital exclusion started being a topic of social policy and academic debate about a decade ago. At this point it had become clear that Information and Communication Technologies (ICTs) and in particular the Internet were here to stay and were likely to play an increasingly significant role in many aspects of everyday life. Before then the internet was seen as useful mainly for professional use or for enthusiasts, this quickly changed because the platform evolved to include social interactions, economic and other service provisions and common leisure pursuits (Joinson, 2002). In other words, the Internet spread its tentacles to embrace the personal, professional, political, social and cultural aspects of our lives.

Figure 1 Corresponding fields Model: Interweaving of offline and online fields of engagement

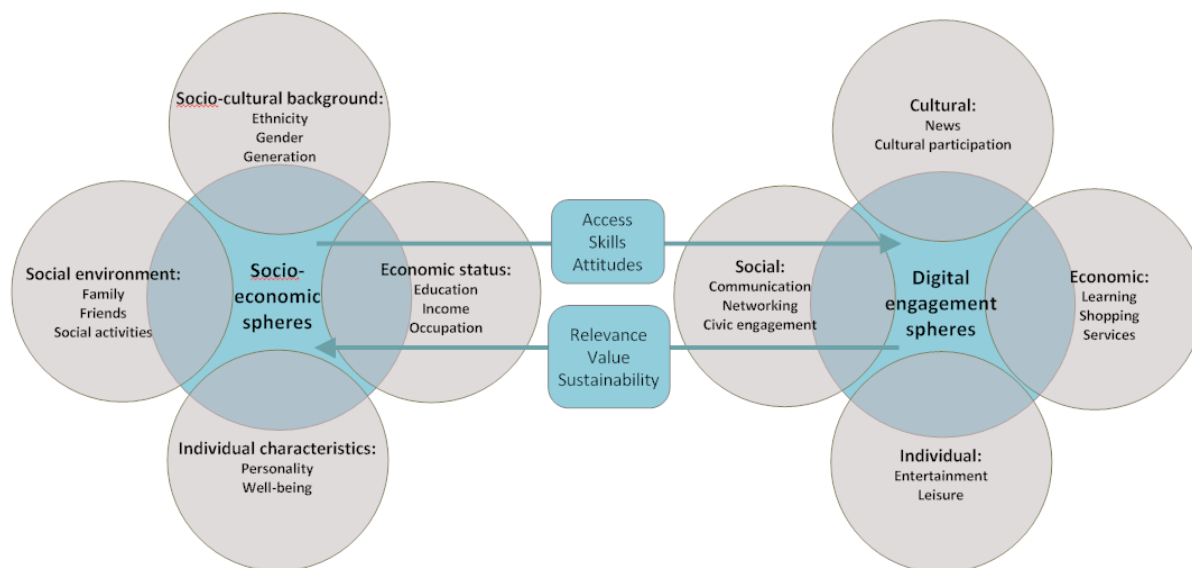


Figure 1 shows a model that depicts how offline or socio-economic spheres (left hand side) are now reflected in the online of digital sphere (right hand side). To understand how these offline and online fields are related it is necessary to discuss the development of policy and theory in relation to digital inclusion. The research and debate in the area of digital inclusion has first and foremost tried to understand what the barriers are to engagement with ICTs, currently focussing on access, skills and attitudes or motivation as three important factors.

#### DEVELOPMENT OF DEBATE FROM ACCESS TO ENGAGEMENT

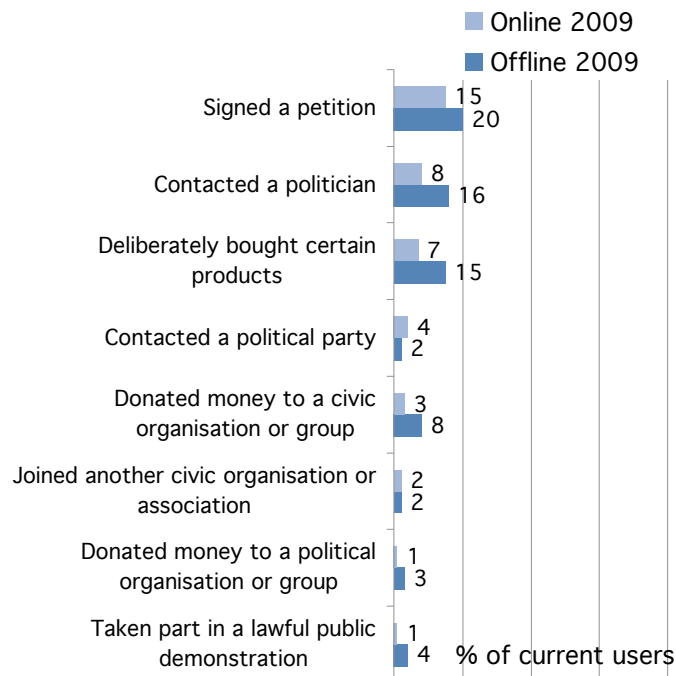
At the beginning of the 21<sup>st</sup> century, concern about digital exclusion centred on the observation that access to these technologies was not distributed equally and that thus certain groups were missing out on the opportunities that ICTs offered. It was common to speak of digital divides and the have and have nots. Divides between groups reflected inequalities observed in societies in general, those who were advantaged in terms of societal and economic participation were on the right side of the dividing line between access and no access to these technologies. Thus the poor, the lower educated, the disabled, those who were isolated and a number of minorities were on the wrong side, lacking access to ICTs because they were economically worse off and therefore unable to use them.

Governments were concerned about this because it meant that civic participation, education and access to the services that they themselves were offering increasingly online was also unequally distributed. It seemed that the rich would only get richer and that if these trends continued participation in the so called information-society would become an elite affair. The policy response in most European countries was to improve infrastructure and establish public access points in libraries, schools and internet café's. This was only marginally successful in breaking the strong relationship between social or offline disadvantage and digital participation, for example, even with widely available and cheap access points a third of the UK population was still not using the internet in 2009 (Dutton, Helsper, & Gerber, 2009).

Over the last ten years the debate around digital exclusion has shifted from a focus on access provision as a solution to discussions about gradations of inclusion that incorporate levels of access, skills and motivations to engage with ICTs (Halford & Savage, 2010; E. J. Helsper, 2010; Van Dijk, 2005)(Van Dijk, 2005). This was the result of research that showed that disadvantaged groups were not likely to have lower skill levels and more resistance towards ICTs even when they did have access that was relatively ubiquitous. Therefore, the next logical step in European policy making was to think about skills training and provision in schools, on the job, and around those centres and activities that disadvantaged people frequented. These programmes were often labelled media or digital literacy programmes, one result of this is the European Computer Driving License.<sup>1</sup>

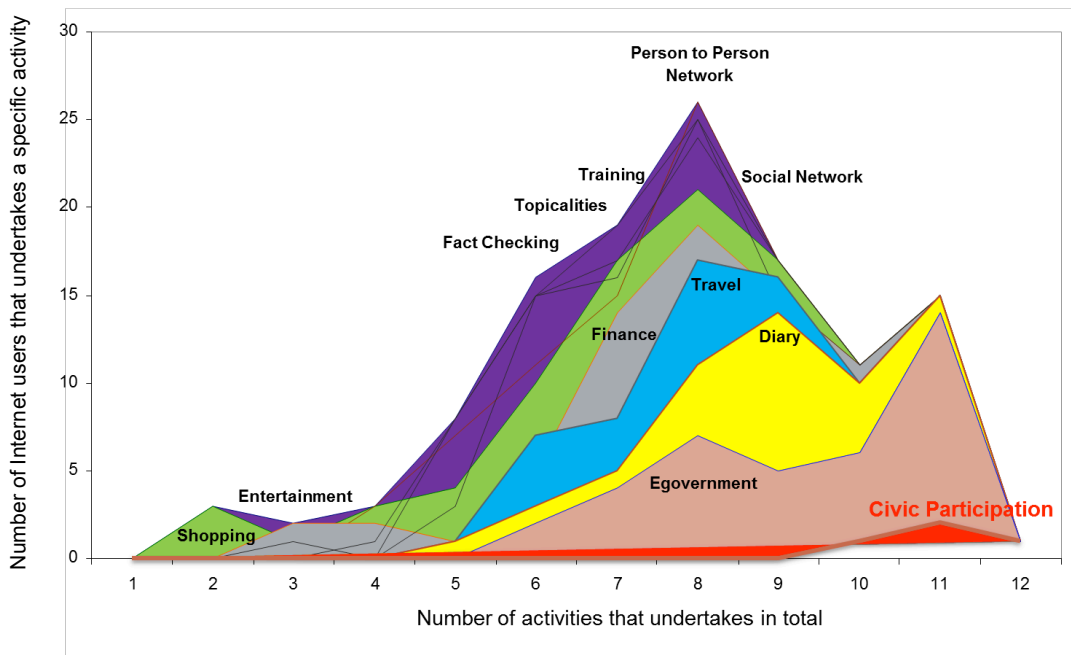
More recent research has gone a step further. It has been argued that even when access, skills and motivations are accounted for as barriers to engagement, patterns of exclusion replicate themselves in the digital realm (E. J. Helsper, under review). For example, people who are not engaged civically offline are unlikely to engage with civic engagement type activities online even if they have ubiquitous access, high ICT skills and have a positive outlook towards technologies (E. J. Helsper & Galacz, 2009). Figure 2 shows how online engagement reflects in offline engagement. In both the offline and the online world civic engagement is quite low but the ranking according to popularity of activities is similar for the activities online and offline. Not shown in the figure but presented in the Oxford Internet Survey 2009 report (Dutton et al., 2009) is that the people who are engaged with these activities online are also engaged with these activities offline.

Figure 2 Civic engagement offline and online



Civic engagement in particular is interesting because it is an activity that only the most advanced internet users take up. That is it is an activity that is undertaken by internet users who already do all other types of activities, there are very few internet users for whom civic engagement is the main activity when they go online (see fig 3).

Figure 3 Ladder of engagement – activities taken up depending on the total number of different activities that are undertaken



Source: Helsper (E. J. Helsper, 2009)

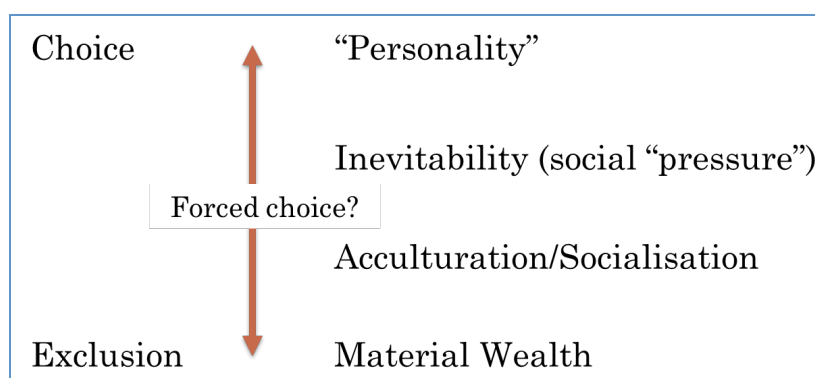
This brings the debate round again to policy, from the previous it is clear that a solution to a disengaged public is not just to provide more access to ICTs, nor is it enough to increase their digital skills or shed a positive light on what ICTs can do for people. Controversially, the latest findings imply that the best digital inclusion policy is likely to be a social inclusion policy.

The current policy debate should therefore be concerned about making engagement with the technologies in the different spheres relevant, sustainable and valuable in relation to the offline social realities of the person. This is ofcourse a much more difficult task than to merely lay down more pipes to improve access, to provide skills training or to start an ICT awareness campaign. This implies a good understanding of the different aspects of disadvantaged groups' every situations and how ICT and the services provided on these would fit in with their habits. For organisations specifically interested in online civic engagement this task might actually be easier. As long as they are aware that just providing good, relevant, and valuable content is not enough because the barriers of digital access, skills and motivation cannot be ignored if civic participation and education is to be truly equal online.

Explanations for the relationship between social disadvantage and digital Disengagement:  
Choice or exclusion

Hanging over this whole debate is a paradigm which is slightly normative in nature, it is about the causes of social as well as digital exclusion. It relates to ideas about people’s agency in choosing to engage in society, digital or otherwise. Underlying this is whether or not those people who have access, skills and a good understanding of the opportunities that the internet offers but not engage with ICTs can be considered to be disengaged by choice or whether there is a reason to call these individuals excluded against their will or better judgement. Figure 4 shows the factors that are related to the different levels of this paradigmatic debate.

Figure 4 paradigms of choice and exclusion



The scale from attributing disengagement to involuntary exclusion or to free choice can be mapped onto the four spheres as identified in the corresponding fields model (see fig 1).

The paradigm that argues that disengagement from technologies should be purely defined as *forced exclusion* focuses on how material wealth and other *economic indicators*, things outside the control of the individual prevent people from engaging with ICTs. This paradigm therefore focuses on issues of access and to a more limited extent on skills since access to education and financial resources to acquire connections in disadvantaged groups is often limited by forces outside their control.

The next step up the ladder is the paradigm that focuses on the *cultural aspects* of engagement with technology. This is also to a certain extent outside the individual’s control and because cultural characteristics are relatively unchangeable. People are born with a certain gender, into certain ethnic and religious cultures and socialised according to the norms that are present in these groups. These socialisations often encourage certain ideas of participation in society, in an information society this includes ideas about whether one should and how one should engage with technologies (Halford & Savage, 2010; Selwyn, 2006; Selwyn, 2007). Since this type of socialisation is often subconscious, acculturation that leads to negative views of technology or of an evaluation of these as less important, can therefore be seen as an indicator of *culturally determined disengagement* even if the person states that they choose not to use ICTs (Selwyn, 2005; Selwyn, 2006).

A further step up the ladder from exclusion to choice is the influence of the *social environment*, ofcourse this cannot be seen as separate from cultural or material factors, these environments often overlap. In any case, the social aspect is that of the people that surround us, our social capital (Bourdieu, 1986). Here the concept of relativity is important. Relative exclusion can be as important if not more so than absolute exclusion. That is, for some key groups digital exclusion is associated with higher levels of disadvantage in the context of their community than others with the same levels of ‘objective’ digital exclusion (E. J. Helsper, Dutton, & Gerber, 2008)(National Audit Office report, 2009). For example, for parents with children in education not being connected to the internet might be relatively more problematic than for an elderly person whose friends and neighbours are not online.

The social pressure or perceived inevitability of technologies as part of everyday life are in this sense important to push people to engage. While there is perhaps a greater element of choice in this and people are more aware of what the consequences are of choosing to engage through ICTs or not, a choice to disconnect based on a lack of engagement by others in the environment still cannot be said to be a completely free choice for disengagement but instead as *socially forced*. This is shown in the data on reasons for disengagement. Those people who are most likely to say they are not interested in connecting are those who have the lowest levels of education, income, and lack social (digital) capital (Helsper, E.J. & Godoy-Etcheverry, S., 2011).

The final step on the ladder is related to the *personal sphere*, this is where psychological characteristics of the individual are the main determinant of disengagement. This is probably the most pure form of disengagement by *choice*. The grey area in between clear economic exclusion and pure free choice can tentatively be labelled forced choice and as remarked in the previous paragraphs, it is often difficult to determine whether the final determinants are of a stated lack of interest.

*Footnote on proxy use*

A footnote to this debate of the relativity of exclusion and the importance of distinguishing choice and forced exclusion is that researchers do not actually agree on what engagement or exclusion are. This is linked first of all to the differences in focus of policies and interventions, described before as ranging from infrastructure or access to the breadth of engagement with different types of online activities. Even amongst those who take access as the final indicator of inclusion there is disagreement. Recently an argument has been made that in fact even if the person has no access or does not use the internet personally they might have access to people that can access and engage with these activities for them, the so-called proxy-users (Helsper & Godoy, 2011). In the UK one third of non-users rely on family or friends to use the Internet for them (Helsper & Godoy, 2011). Thus, even what might seem as complete disengagement might actually in a relative sense not mean a lack of access to the services offered online. Nevertheless, it is likely that this use by proxy is restricted to those activities that are clear cut and instrumental, such as looking up facts and practical information or buying products or services, when it comes to the activities further up the ladder such as civic engagement (see fig 3) use by proxy is unlikely since they require personal involvement and are strongly linked to an individual’s personal, social and cultural beliefs and circumstances.

### Practice: Interventions and research

From the above it might seem that quite a lot is known about why certain people engage and do not engage with ICTs. To a large extent this is true, there is some disagreement about what the most important factors are and what interventions and policy should focus on, but the interweaving of the social and digital spheres is not a point of contention anymore. Where the biggest gap in knowledge and therefore policy lies is in the reverse link, that is, we know very little about which characteristics of digital engagement lead to improvements or have a negative impact on the offline spheres.

Hypothetically, from evaluations of interventions in other fields, it is reasonable to assume that the activities that people engage with online need to be relevant, sustainable and positive in nature (Helsper, under review). These are three relatively vague concepts and linked to the personal context and circumstances of each individual user. Therefore it is rather difficult to create a model that is scalable to general digital policy domain and at the same time specific enough to be applicable to targeted projects that attempt to, for example, transform civic online engagement into real changes in people's offline lives.

There are two further reasons why our understanding of this feedback loop is so weak. First, those people most at risk of digital exclusion are those who are also most at risk of social exclusion. These target groups are hard to reach not only for those interested in working with them in interventions but also for researchers. The most vulnerable in society are those least likely to participate in research and they are even more difficult to find online. This is an issue relevant to practitioners, policy makers, and researchers alike. Because to gather the knowledge to design appropriate policies and effective interventions it is necessary to understand the underlying factors that make the most deprived able to engage in both ICT related interventions as well as general research.

Second, this knowledge needs to come from generalizable, rigorous evaluations of interventions with specific groups. In projects that use ICTs to increase engagement with society amongst the most vulnerable there are a number of problems that make this rather difficult. One is that many initiatives are not clear about what they focus on in terms of evaluation, the projects are not set out to measure the impact of engagement with ICTs on the offline. Instead the implementation of ICTs is in itself seen as the aim of the project, thus the installation and (any) use of ICTs is seen as a success. Short term product outputs (i.e. websites designed, interactions started) are seen as indicators and are often not linked to social outcomes or the sustainability of engagement in a person's life. Another problem in the evaluation is at the opposite end of the spectrum. Instead of seeing ICTs or technology as the end goal, ICTs are used almost by accident and their implementation is not structured or thought of as part of the strategy to improve participation in society.

In both cases this means that, if after the fact people are interested in understanding what the impact of the ICTs as part of the wider intervention was, the instruments and the data are not in place to be able to make this impact evaluation. To be able to conduct a proper evaluation, the intervention needs to have had measurements of all the elements in the corresponding fields model. That way the barriers to engagement can be fully understood and measured and the impact of different types of engagement on different types of social spheres can be observed. This means all the digital barriers such as access, skills and motivation as well as the relevant and potential social impact spheres and the relevant and related areas of digital engagement.

## Case studies

In this last section I will discuss briefly what is known about digital engagement for a few specific vulnerable groups and connect it to the problems with the research that has been conducted. This is based on research I was involved in personally and includes projects that were intervention oriented as well as projects that were led by pure research and knowledge gathering interests. For most of these projects more detailed publications are available and indicated in the text.

1. The Civically Disengaged
2. Socially isolated youth
3. NEETS
4. Ethnic minorities
5. Disabled youth

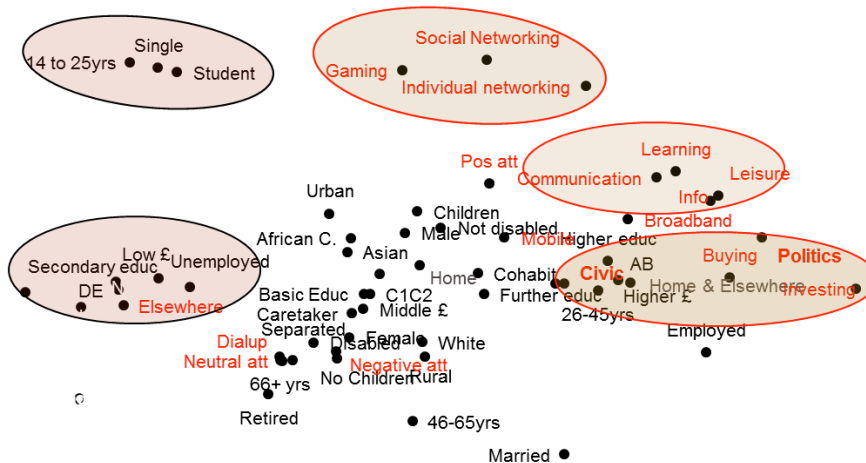
### 1. The Civically disengaged

The World Internet Project (WIP – [www.worldinternetproject.net](http://www.worldinternetproject.net)) surveys aim to collect representative samples of the population in the countries where they are conducted, in some countries the interviews are done on the phone in others they are done face-to-face (f2f)(World Internet Project, 2010). Nevertheless, as is common in random representative surveys, the most vulnerable in society almost never participate. In the UK, where the survey is done f2f the interviewers will not go into areas that are considered unsafe for the interviewer and in addition, the survey is only conducted in English. This means that conclusions drawn from these studies about the unemployed, lower educated and socially isolated refer to those who do not live in these areas and are comfortable being interviewed in English. This is clearly problematic. Nevertheless, even with this caveat, interesting evidence for the correspondence between offline spheres and online civic engagement has been collected (see fig 5).

Those who are least likely to engage (i.e. furthest removed from civic engagement in fig 5) with civic activities are the young, single students. These are otherwise highly digitally engaged but, offline as well as online, often the least engaged with civic issues. This is an indication that access, skills and use of the internet in general do not automatically relate to engagement with those activities that the third sector and government tend to consider the most worthwhile(E. J. Helsper & Galacz, 2009).



Figure 5 Distances between characteristics of internet users and different types of engagement with the internet



Source: Helsper & Galacz (2009)

## 2. Socially isolated youth

One of the most vulnerable groups in society are those who lack social interaction. It can lead to health problems and is related to other types of disadvantage (e.g. economic, educational, etc) (Bossert, D'Ambrosio, & Peragine, 2007). Social isolation is particularly problematic amongst young people since a main part of their everyday lives is constructed around building relationships and identities through peer groups. This counts in part for the popularity of social networking sites among teenagers and young adults (S. Livingstone, 2008).

The EU Kids Online II project surveyed 1000 internet using children and their parents in 25 EU countries (see [www.eukidsonline.net](http://www.eukidsonline.net)) and asked questions about their online activities as well as psychological and social characteristics. In this study 18% of children indicated that they had one of the following characteristics:

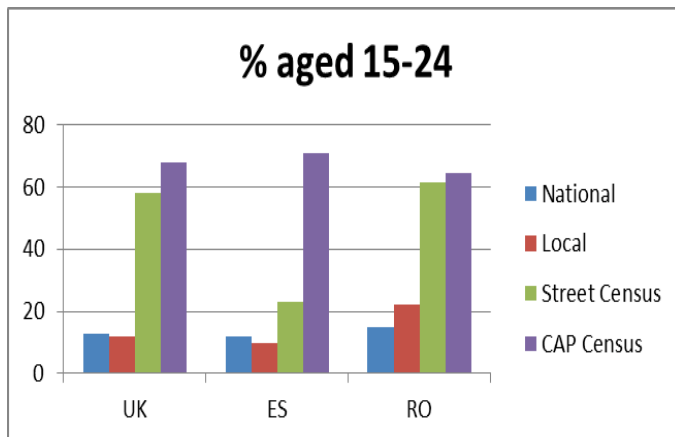
- I am usually on my own, I generally play alone or keep to myself
- I have at least one good friend
- Other people my age generally like me
- I am nervous in new situations, I easily lose confidence
- Other children or young people pick on me
- Other people my age often treat me as if I wasn't there
- I get on better with adults than with people my own age

The real number is likely to be higher considering that socially isolated people are less likely to use the internet and less likely to participate in f2f interviews. The data of this study showed that those who indicated some sort of social isolation were less frequent users (53% used the internet daily v 61% of other children) and were less likely to undertake social activities online (e.g. 53% had a social networking profile v 60% of other children). This shows that those who are able to benefit most from participation activities online are those who have the offline resources and backgrounds in which these practices are embedded.

### 3. NEETs

An IPTS funded project was specifically set up to evaluate engagement with ICTs by youth from the most deprived areas in Europe. Often these were youth who were Not in Education, Employment or Training (NEETs). The project evaluated EU wide initiatives which dealt with youth at risk and they argued that it was difficult to draw overall conclusions about what made the use of ICTs successful for the reasons mentioned above (IPTS, 2011). The project also argued that few general conclusions about NEETS could be drawn because those young people who did participate in the projects that were evaluated were those that had either volunteered to do so or were long term users of the social care system. They could therefore not be seen to represent the average young person at risk. They conducted a pilot study of different methods to reach a representative sample of young people, the interesting finding was that participation levels of young people at risk greatly increased when less conventional contacting methods were used. On street surveys in disadvantaged areas led to increased participation especially in Romania and the UK (fig 6).

Figure 6 Participation of Youth at risk using different sampling methods



Source: Cullen (2010)

<http://is.jrc.ec.europa.eu/pages/EAP/documents/CULLENsurveypresentationpart1.pdf>

Using this method, higher levels of engagement with ICTs were found than the researchers expected. The lessons that researchers drew from this was that institutional and traditional modes of engaging with these most vulnerable youth was likely to be more successful if they were approached and engaged within environments where they played out their everyday lives. Respondent driven sampling, the strategy used here emphasises that any intervention (whether research or policy based) needs to start from the offline spheres when trying to improve engagement. This is true for engagement in research just as much as engagement with ICTs. Especially if the aim is to reach the most vulnerable young people out there.

#### 4. Ethnic minorities

In the model presented at the beginning of this paper one facet of both the offline and digital spheres is culture. Defined, for the purposes of this paper, as those habits and beliefs that individuals have assimilated through processes of socialisation related to the socio-cultural groups that they are part of and most often born into. Ethnic groups are one of these groups, a group that is more likely to be excluded from mainstream research because: they often do not speak the language in which the research is conducted, they are more likely to live in areas that are deemed unsafe by interviewers and because their sometimes illegal status makes them wary of participating.

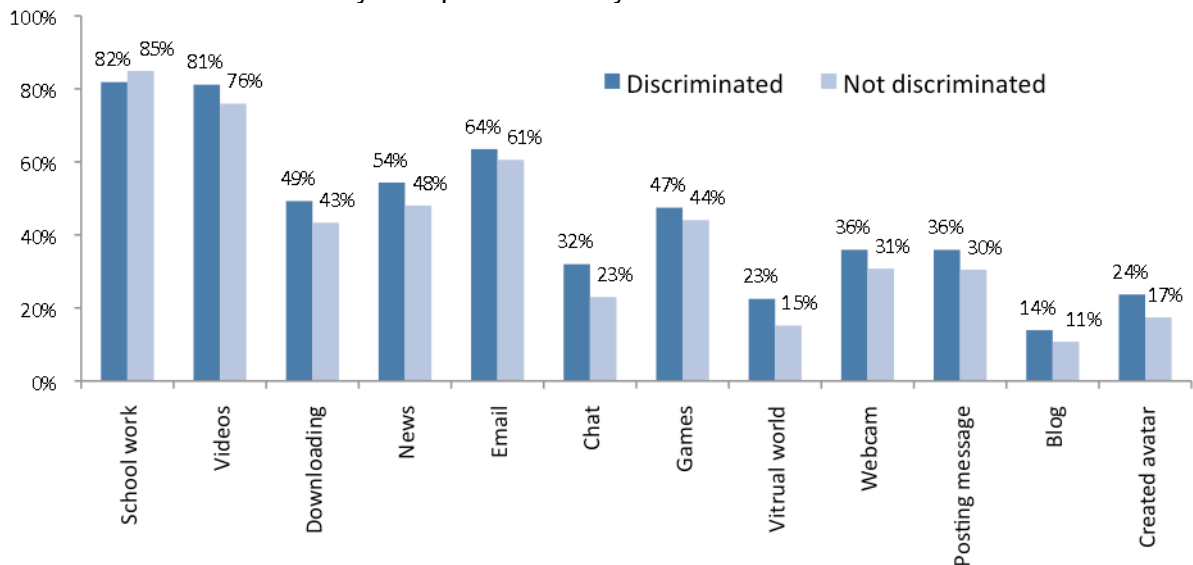
Individuals belonging to ethnic minorities are more likely than those of ethnic majorities to recognise this ethnicity as part of their identity and recognise certain behaviours and values as being part of this identity. This might influence their opinions and attitudes towards the value of civic engagement as well as towards ICTs and their role in society. Both attitudes need to be taken into account when trying to understand barriers to online civic education. Several studies in the UK that worked with or had ethnic minorities as participants it is possible to deduce that they have incorporated ideas about ICTs into their ethnic identity. The following quote illustrates how African Caribbean teenagers expressed that online socialising is more white than African Caribbean (E. J. Helsper, 2007).

*“I don't think minorities in general go for that...meeting people online. Because I don't think they're that open minded, generally.” (African Caribbean teenager)*

Other research indicates that adults appreciate that IT is good for education but at the same time see it as a threat to traditional African Caribbean family structures and interactions (Helsper, E.J. & Godoy-Etcheverry, S., 2011; Ofcom, 2006).

One element of ethnicity is feeling discriminated against. Figure 7 shows how 9 to 16 years olds who, according to their parents, are discriminated against engage with the internet in comparison to their peers.

Figure 7 Activities undertaken by European 9 to 16 year olds



Base: European internet using children N=25,000 (EU weighted)

Source: EU Kids Online II data (S. Livingstone, Haddon, Görzig, & Ólafsson, 2011).

Interesting is that discriminated kids, who often come from more generally disadvantaged socio-economic backgrounds, once they are online tend to engage with most activities more than their non-discriminated counter parts. Thus, if the hurdles of access, skills and attitudes can be overcome, discriminated youth might engage more with different aspects of ICTs, especially with the social and cultural types of engagement.

#### 5. Disabled people

Another group that is often discriminated against in offline spheres is the group of disabled individuals. There are of course a wide variety of disabilities which makes drawing general conclusions about disability and digital inclusion a bit useless. Problematically for knowledge gathering, those with severe cognitive disabilities are by the very nature of their disability excluded from most research and we therefore know very little about their engagement with ICTs. Even those who are less cognitively impaired often do not participate in research because many of them are socially isolated and economically disadvantaged, characteristics that makes them more likely to be (self-)excluded from interview situations. This is a problem especially for civic engagement since, on average, disabled people rely heavily on government services and on understanding their rights as citizens. These services are increasingly moving online and a lack of knowledge about how they as a general group (made up of several distinct subgroups) engage with ICTs is problematic.

Most existing research and interventions focus on access as the main barrier to digital engagement by disabled individuals. Access in terms of access to hardware and software and accessibility are indeed still a major problem. The World Internet Project (Dutton et al, 2009) and a study with teenagers (Helsper, 2007) show that 70% of people who self-define as having a disability have home access as compared to 87% without a disability. These studies also show that disabled adults and teens have lower levels of digital self-efficacy, more negative attitudes towards technology and what it does for society and use the internet in a narrower fashion.

Nevertheless, while their overall use is narrower than that of non-disabled groups they are more likely than non-disabled adults to engage civically: only 8% of the general internet using adult population engages online civically while 21% of their disabled peers do (Dutton et al, 2009). Thus like shown before for discriminated groups of young people, if barriers of access, attitudes and skills can be overcome, disabled people are more likely to engage with those things that benefit them. It is important to keep in mind that this is a group that is more civically engaged offline as well since they rely heavily on support and services provided by others in society and that thus their high levels of online engagement cannot be attributed to ICTs and the easy access to these services they provide. They are not more likely to engage with other aspects of the digital sphere, in fact they often undertake social and other activities less than non-disabled people.

#### Conclusions

This paper looked at the history of the discussion about digital exclusion and why this discussion is important for understanding online civic engagement. One important lesson learned from digital exclusion research is that online engagements reflects offline engagement, thus those who are unlikely to participate in civic education and engagement offline are unlikely to do this when they are provided with access to ICTs. Indeed those wanting to understand why people might not engage civically online have to contend with two barriers, one is a generally civically disengaged public and the other is that particular groups and individuals are excluded from or resisting engagement with ICTs. The paper also argued that we still lack a proper understanding of what the barriers and enablers are to meaningful and sustainable digital engagement for particular groups and types of engagement.

It seems unlikely that access to ICTs and high ICT skills in themselves are sufficient to push those who are disengaged offline to engage online unless this engagement is embedded in the everyday practices and interests of the individual. This might seem an obvious statement to make but in many interventions there is a simmering assumption that once people get high quality access to ICTs the disadvantages that people have offline disappear for their engagement with online services and activities. The few projects based on evaluations of existing interventions show that best practice initiatives start not with thinking about ICTs but with thinking about the various needs and habits that groups have. The question is how ICTs can be integrated into what is already there instead of forcing it in a way that does not fit. Digital inclusion needs to be seen as a process starting from specific social, personal, cultural and economic situation, looking at how digital access, skills, and attitudes are (dis)embedded in all these spheres and how they relate to several different types of engagement after access, skills and motivations are in place. At the moment the problem is that those groups that are most vulnerable in society are also the least likely to participate in evaluations of projects and general research. A few case studies showed which groups are likely to be excluded from both knowledge gathering and interventions in the area of ICTs. We therefore know too little to draw definite conclusions about how ICTs might improve or diminish their overall engagement and well-being.

In relation to the newest developments on the Internet, research suggests that more interactive Web 2.0 services could play an important role in engaging young people from disadvantaged backgrounds related to discrimination once barriers of access, skills and motivation have been overcome. This prediction is reasonable since more interactive services online represent the high needs of interaction with different civic organisations that these involuntarily isolated groups already have offline. If the online experience is less positive, less sustainable and less empowering than offline engagement, no level of digital access, skills or positive attitudes will make people engage civically online.

## References

- Bossert, W., D'Ambrosio, C., & Peragine, V. (2007). Deprivation and social exclusion. *Economica*, 74(296), 777-803.
- Bourdieu, P. (1986). The forms of capital. In J. C. Richards (Ed.), *Handbook of theory and research for sociology of education* (pp. 241-258). New York: Greenwood Press.
- Dutton, W. H., Helsper, E. J., & Gerber, M. M. (2009). *The internet in Britain: 2009*. Oxford, UK: Oxford Internet Institute, University of Oxford.
- Halford, S., & Savage, M. (2010). Reconceptualizing digital social inequality *Information, Communication & Society*, 13(7), 937 — 955. doi:10.1080/1369118X.2010.499956

Helsper, E.J. & Godoy-Etcheverry, S. (2011). The long tail of digital exclusion: The social context of digital (dis)engagement in chile and the UK. In *The linked world: How information and communication technology is transforming societies, cultures, and economies*. (). Washington, MA: Conference Board Press.

Helsper, E. J. (2007). *Internet use by vulnerable teenagers: Social inclusion, self-confidence and group identity*. (PhD, London School of Economics and Political Science). , 352.

Helsper, E. J. (2009). Digital literacy: Different cultures different definitions. In H. Drenoyianni (Ed.), *Proceedings international conference on digital literacy*. (). Oxford, UK.: Peter Lang Publishing Group.

Helsper, E. J. (2010). Gendered internet use across generations and life stages. *Communication Research*, 37(3), 352-374. doi:10.1177/0093650209356439

Helsper, E. J. (under review). A corresponding fields model of digital inclusion. *Communication Theory*,

Helsper, E. J., Dutton, W. H., & Gerber, M. (2008). To be a network society: A cross-national perspective on the internet in britain. *OII Research Report*, 17, January 2009.

Helsper, E. J., & Galacz, A. (2009). Understanding the links between social and digital inclusion in europe. In A. Cheong, & G. Cardoso (Eds.), *World wide internet: Changing societies, economies and cultures*. (pp. 144-175). Taipa (Macau): Macao University Printing House.

IPTS. (2011). *ICT and youth at risk of social exclusion*. Retrieved June, 2011, from <http://is.jrc.ec.europa.eu/pages/EAP/eInclusion.html#Youth>

Joinson, A. (2002). *Understanding the psychology of internet behaviour: Virtual worlds, real lives*. Basingstoke, UK: Palgrave Macmillan.

Livingstone, S., Haddon, L., Görzig, A., & Ólafsson, K. (2011). *Risks and safety on the internet: The perspective of european children. full findings*. London: LSE.

Livingstone, S. (2008). Taking risky opportunities in youthful content creation: Teenagers' use of social networking sites for intimacy, privacy and self-expression. *New Media & Society*, 10(3), 393-411.

Ofcom. (2006). *Media literacy audit: Report on media literacy amongst adults from minority ethnic groups*. London: Ofcom.

Selwyn, N. (2005). The social processes of learning to use computers. *Social Science Computer Review*, 23(1), 122-135.

Selwyn, N. (2006). Digital division or digital decision? A study of non-users and low-users of computers. *Poetics*, 34(4-5), 273-292.

Selwyn, N. (2007). Hi-tech = guy-tech? an exploration of undergraduate students' gendered perceptions of information and communication technologies. *Sex Roles*, 56(7-8), 525-536.

Van Dijk, J. A. G. M. (2005). *The deepening divide: Inequality in the information society*. Thousand Oaks, CA, USA.: Sage.

World Internet Project, . (2010). 2009 digital future report.