# Slovenians Offline: Class and Cultural Aspects of Digital Exclusion*

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**Abstract:** This article seeks to identify who in Slovenia remains digitally off-line and how such a status relates to socio-demographic factors (e.g. gender, age and education), class and cultural capital. The author assumes that the absence of new technology should be addressed in relation to existing patterns of cultural consumption and media preferences, and she attempts to understand the problem of digital exclusion within the context of other types of structural inequalities. Since digital technology is understood not just as a technical tool but as a social phenomenon directly related to everyday practices, the individual's class position and cultural capital, digital exclusion is not viewed simply as a narrow problem of access. Instead of looking at the binary gap between technology haves and have-nots, the author takes the multilevel structure of digital access into account. The findings of a quantitative survey involving a representative sample of 820 residents in the two biggest Slovenian cities—Ljubljana and Maribor—show that, first, three types of digital exclusion exist: digitally unmotivated with high cultural capital; overall excluded with weak cultural capital; and digitally self-excluded with moderate cultural capital. Second, the study suggests that all three digital exclusion groups are, more than by class, divided by cultural engagement and media taste, which provides important possibilities for future research.
**Keywords:** digital divide, cultural capital, Internet non-users, media consumption, digital inequality, Slovenia

## Introduction

According to the recent Slovenian survey 'Media Consumption, Class and Culture', one-fifth of households in the two main urban cities of Ljubljana and Maribor have no Internet access, despite almost all respondents agreeing that the informa-

tion infrastructure (cable TV, Internet account, etc.) is one of the most important indicators of quality of life. Access to technology is therefore valued highly and is directly related to the quality of everyday life, but there remain people with no access to the online world. What kind of social factors determine which side of the digital border one stands on? The inequalities of access to technologies have come to be embraced by the term 'digital divide' [Chandler 1994; van Dijk 2005; Wilson, Wallin and Reiser 2003], which has a short and vivid history [Gunkel 2003; Sparks 2013] but has rarely been conceptualised in a cultural perspective [Witte and Mannon 2010]. While many studies suggest that the Internet can be viewed as a generator of new social inequalities that are not easily solved with more technology, studies reflecting the digital divisions within a broader context of class position and cultural capital have only recently become widespread.

These debates have, over time, successfully superseded the bipolar understanding of a division between 'information poor' and 'information rich' [Norris 2001; Selwyn 2004; Tondeur et al. 2010; van Dijk 2006] by highlighting the important role of stratification patterns through social hierarchies at the level of age, family status, gender, ethnicity, origin, language and space. The more recent currents of thought conceptualise the notion of a digital divide in terms of skills and competences in using technology, pointing out that the availability of technology is not adequate to explain physical access to the Internet. Instead, the digital divide should be fully understood as a complex and multidimensional phenomenon [Gunkel 2003; Sparks and Nieminen 2012].

This article assumes that digital exclusion is a result of social and cultural distinctions and should be analysed in line with other types of social stratification, including gender, age, education, class and cultural capital. It opens with the thesis that inequalities in access to technology result from an asymmetrical distribution of economic (money, ownership), social (social relations, power) and cultural (skills, cultural practices) capital, and should not be understood as the factors of social stratification as such. These divisions are ascribed to 'the multidimensional class structure of recent societies that produce structural inequalities' [Fuchs 2008: 216]. However, the study also argues that the *absence* of technological objects should be addressed in relation to the existing patterns of cultural consumption and media preferences. Following the perspective of digital inequalities [Witte and Mannon 2010], which views inequality as a multidimensional concept related to class position, status differences or differences in occupational prestige and family background, the aim of this study is to combine a critical sociological approach with cultural aspects of digital exclusion.

The majority of studies dealing with the question of digital technology in everyday life are empirically focused on the users of technology, with the discussion rarely devoted to those who seem to lack personal experience of the fast-developing online world [Hargittai 2007; Selwyn 2006; van Dijk 2006], especially within smaller Internet societies like Slovenia. To bridge this empirical gap, this article provides a detailed empirical analysis of Internet non-users, and attempts

to reveal the types of digital exclusion identifiable in existing social hierarchies. Instead of looking at the binary gap between technology haves and have-nots, the multilevel structure of digital access is taken into account, which stresses the importance of the motivational, material and skill dimensions of access [van Dijk 2006]. The different forms of digital stratification are tested using a quantitative survey conducted on a representative sample in the two biggest Slovenian cities, Ljubljana and Maribor [Luthar et al. 2011]. The aim of the analysis presented here is to identify typical digitally excluded groups and to explain their inner structural differences based on socio-demographic characteristics, class and cultural capital. By measuring three levels of digital access—material, skills and motivation—with selected indicators and conducting a cluster analysis we find first that three types of digital exclusion exist in Slovenia and second that it is hard to view the online world as a space for class emancipation or social mobility, because at the level of access the perpetuation of established social inequalities is already occurring. However, the data reveal that the three groups of digital exclusion are divided by their subjective perception of class structure, not by the objective occupational class structure, which sheds new light on how class matters in relation to technology. On the other hand, cultural capital appears to be significant in understanding (old and new) media non-use among the identified groups of Internet non-users.

## The Internet and social (in)equality

The question of access to online experiences and practices is always related to the broader social, economic and political context. Early studies in this field done at the beginning of the 1990s posed questions about the rise of new social inequalities given the problem of unequal access to Internet networks and information technologies, in which the generally established class structure still played an important role. In the mid-1990s, the focus was largely on the new concept of the digital divide. Class dimensions were at this stage transformed into an analysis of descriptive differences between users and non-users according to their gender, age or education (see DiMaggio et al. [2004] for a review of much of this literature). After this period of extensive commercialisation of the Internet, the question of class differences remained marginalised, discussed primarily in larger countries such as India, Australia and Canada [Leigh 2011].

### The Internet—'the great equaliser' of social inequalities

With the huge expansion of the Internet, at least in Western societies, in the early 1990s two conflicting perspectives emerged of the impact it was having on society. Proponents believed the Internet could create a 'cyberutopia' because of its potential to generate new egalitarian social networks, but critics argued the

potential for a 'cyberghetto' was greater because the Internet would retain vestiges of traditional communities with similar hierarchical social links and class-structured relationships [Ebo 1998b: 2]. However, proponents countered that 'the Internet de-emphasises hierarchical political associations, degrading gender roles and ethnic designations, and rigid categories of class relationships found in traditional, visually based and geographically bound communities' [Ebo 1998b: 3]. Understanding the Internet as a great equaliser presupposes a technology that overcomes prejudices held by people, and even strongly assumes that the barriers to equality associated with race, age, sex and other 'isms' dissipate in the ether of cyberspace. Conversely, critics argued that access to cyberspace was largely in the hands of the wealthy and the better educated, and this created techno-illiteracy around existing class, race and gender differences. For many, such Internet-based biases are inevitable because of the class-structured economy [Dawson and Foster 1996].

In this context, questions have been raised about the continuation, and not the decline, of social inequalities in the field of information, knowledge and literacy [Wolff 1998; McNutt 1998; DiMaggio and Hargittai 2001; Mason and Hacker 2003]. The concept of an information gap has also been the focus of discussions about the unequal distribution of resources that propels those with greater access to information and technologies ahead of other members of society. For instance, in the late 1990s, Carrier related the trend of the information gap to the emergence of Internet technology: 'The information elite consists of individuals who have the tools and knowledge to adapt to new communication technologies as they are developed. In turn, these new technologies increase access to information, and this additional information prepares elite members of society to incorporate the next generation of technology into their lives.' [Carrier 1998: 158] Instead of narrowing social inequalities, the social gap was arguably becoming even wider.

*The digital divide—a new form of social inequality*

The digital divide as a concept has a short but dynamic history in which scientific, journalistic and political discourses are intertwined. The concept became part of scientific inquiries in the late 1990s, and as a buzz word quickly replaced previous, theoretically more powerful, ideas about information inequality, the information gap or the knowledge gap and media and computer literacy [van Dijk 2006: 221]. In a general sense, the digital divide refers to physical (non-)access to Internet technology or its hardware and software. The argument is simple, as, on the structural level of society, if one section of the population has no access, then there becomes apparent a new social inequality in which those with greater access have more information, content, services and diverse social interactions.

However, as Gunkel [2003: 504] acknowledges, the digital divide is originally and persistently plural, which leads to two consequences: first, there is not one digital divide but a constellation of different, intersecting social, economic and

technological differences, and second, lexical multiplicity is not necessarily a deficiency. Gunkel claims that the changing definition is not the result of an inability to be precise, but that the meaning has varied because the technology in question has changed considerably. Although the digital divide has often been characterised as the gap between the information haves and have-nots, there is considerable variability in the forms of information people possess and the modes by which information is accessed and used. It was Warschauer [2003a, 2003b], one of the representatives of the critical current of thought about the digital divide, who suggested more than a decade ago that the digital divide be redefined as 'social stratification', which indicates that the divide is not a binary division but rather a continuum based on different degrees of access to information technologies. Following this critique, van Dijk believes that this binary division, where people are either in or out, included or excluded from the digital world, is one of the most confusing myths produced by popular early ideas about the digital divide. Such a division into two opposite poles is problematic for at least three reasons [van Dijk 2006: 227]: (1) it neglects the potential of so-called intermittent users, who once used the Internet but later went offline for extended periods; (2) it forgets the often unnoticed group of drop-outs that have lost connection to the Internet for different reasons; and (3) it avoids the case of 'net-evaders', who simply refuse to use the Internet whether they have the resources or not.

Since 2000, many authors have acknowledged that it is necessary to go critically beyond the early binary logic [Norris 2001; Selwyn 2004; Webster 1995], arguing that the types of digital inclusion are diverse and as such must be understood in relation to skill, autonomy and intensity [Guerrieri, Bentivegna and Meliciana 2010]. Therefore, inequalities in relation to the Internet are not only technical in nature, but are intertwined with individual predispositions, social location, economic, political and cultural resources and even language capabilities. Inequalities also depend on age, gender, ethnicity and geography [Dahlgren 2009: 171]. The relevant question then is what novelties new technologies bring to the conceptualisation of social stratification. Is the Internet a source or an indicator of new inequalities, and to what extent are these inequalities new?

*The cultural and conflict perspectives of digital inequality*

The technical perspective on the digital divide alone does not enable such questions to be answered, so its critics agree that the analysis should go *beyond* the problem of access [Looker and Thiesses 2003; Selwyn 2004] to understand the profiles of Internet users and non-users. Instead of the gap between those with or without access, the studies must analyse different levels and patterns of technological adoption as a cultural phenomenon [Curran and Seaton 2003; Selwyn 2004; Tondeur et al. 2010]. One element of such studies must concentrate on the analysis of skills and knowledge and their relationship to the users' education. This focus on facility of use represents a new current of thought on the digital

divide; such studies accept technological dimensions as foundations for Internet access but also conceptualise the issue of the digital divide 'in terms of the possession of the necessary skills and competences for using these technical affordances' [Sparks and Nieminen 2012: 15].

However, what such studies forget is to reflect on technology (or its absence) in the much broader context of cultural and media consumption, and to explore the role of cultural and social capital in relation to the use or non-use of technology. The theory of cultural capital can be helpful in this sense since it gives meaning to taste and to engagement in cultural practices, for instance an interest in reading, film, theatre, concerts, etc., which together determine media and technological choices. Instead of simply considering access and the means of technology use, such an approach clearly differentiates the cultural resources that can have an influence on when to engage with technology [Selwyn 2004: 355]. According to Bourdieu [1986], cultural capital corresponds with certain cultural tastes and styles and participation in activities, such as the appreciation of literature, cinema, theatre, concerts and museums. Today, however, traditional skills are complemented by new skills mainly acquired by means of new media [Tondeur et al. 2010: 155]. In addition, some authors following Bourdieu's theory understand cultural capital also as an engagement in Internet practices [DiMaggio 1982; Janssen and Ultee 1994; DiMaggio and Hargittai 2001], since cultural consumption results in attaining specific knowledge and skills in relation to new technologies [Tondeur et al. 2010]. While the adoption of technologies becomes an indicator of economic capital, appropriation in the sense of different usage, engagement and training becomes a manifestation of cultural capital.

Witte and Mannon [2010] in this context offered a helpful conceptual differentiation between the 'cultural and conflict approaches' to social inequality and the Internet, providing complementary rather than competing explanations for Internet inequality: 'The conflict perspective emphasizes how Internet skills are used by middle-class Americans to leverage labor markets and pass class advantage on to children. The cultural perspective draws attention to how particular Internet activities define an elite lifestyle. Both perspectives add something to our analysis of the "digital divide".' [Witte and Mannon 2010: 114] In this sense, an understanding of digital culture becomes much more complex, as it implies a differentiation between the skills and competences necessary to use technologies and specific practices in relation to these technologies, which are acknowledged as being a part of cultural capital.

A British study of media and cultural consumption [Bennett et al. 2009: 151] clearly showed how media use, especially TV watching, helps much less in the accumulation of cultural capital than, for instance, visual art. The growing use of computers for fun, watching films, listening to music, playing games, etc., means that classic TV and movies compete with the Internet within the recent and widespread 'screen culture' [Bennett et al. 2009: 149]. The question remains whether the absence of new technologies, and therefore exclusion from screen culture, can also be interpreted as a manifestation of specific cultural capital.

**Digital stratification in Slovenia: a matter of class *and* culture**

The following sections of the article provide a detailed empirical analysis of Internet non-users by addressing specific research questions: How do different barriers to Internet and computer technology access vary across social groups, in particular according to their socio-economic status (gender, age and education)? What types of digital exclusion exist? How does cultural capital relate to specific offline groups? How does class matter, and what role does it play in this regard?

Although the history of computer culture in Slovenia's private sphere began in the early 1990s, everyday life has become more intertwined with the Internet since 2006, when the majority of Slovenian households gained access to computers [Oblak 2008].[1] The entrance of computer technology and the Internet into Slovenian households has from the outset been heavily influenced by gender, education and age. Nevertheless, the class distinctions and cultural capital of users and non-users have largely been overlooked in research. To address this oversight in the Slovenian context, this empirical study argues, that digital exclusion is closely related to weak cultural capital and strong class distinctions.

*Method, sample and data collection*

To explore the stratification of digital culture I drew on the quantitative empirical survey 'Media Consumption, Class and Culture' [Luthar et al. 2011], which was conducted using standardised face-to-face interviews conducted between December 2010 and February 2011 in the homes of respondents in Ljubljana and Maribor.[2] The final random sample involved 820 inhabitants over 18 years of age and corresponds to the structure of Slovenia's overall population. The questionnaire included detailed questions on Internet use, including consideration of skills, motives for use and perceptions of the Internet. The results presented here focus only on the subsample of those respondents without Internet access.

Table 1 shows the results of the study, according to which Internet users (664 respondents) are distinguished from the smaller group of non-users (156 respondents) by general differences in access to computer technology and the

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[1] According to Statistical Yearbooks, in 1996, only 3% of Slovenian households had access to the Internet and in 2007, 58% of Slovenian households had access to the Internet. Internet access in Slovenian households has been divided over time by gender and age; the earliest users were men under 30, with younger women only catching up after 2002.

[2] The sample frame was taken from the Central Register of Slovenian Citizens, from which persons over 18 years old with a permanent address in Ljubljana or Maribor were randomly selected. After collecting the data, the sample structure was weighed on variables of gender and age (method ranking) according to the general population survey. Consequently, the survey data corresponds to the general structure of the Slovenian population.

**Table 1. Percentage of men and women with a personal computer and Internet access divided by gender, education, age and class**

|  |  | PC | | Internet access | |
|---|---|---|---|---|---|
|  |  | Yes | No | Yes | No |
| Gender | M | 85.5 | 14.5 | 83.2 | 16.8 |
|  | F | 78.5 | 21.5 | 76.7 | 23.3 |
| Age | Under 30 | 100 |  | 99.5 | 0.5 |
|  | 30–45 | 95.0 | 5.0 | 94.2 | 5.8 |
|  | 46–60 | 84.0 | 16.0 | 81.3 | 18.7 |
|  | Over 60 | 44.0 | 56.0 | 39.6 | 60.4 |
| Education | Elementary | 47.5 | 52.5 | 43.8 | 56.2 |
|  | 3-year vocational secondary school | 70.3 | 29.7 | 72.8 | 27.2 |
|  | 4-year secondary school | 94.9 | 5.1 | 94.1 | 5.9 |
|  | Higher education | 95.0 | 5.0 | 92.3 | 7.7 |
| Subjective class | Lower / working class | 53.4 | 46.6 | 52.7 | 47.3 |
|  | Lower-middle class | 70.3 | 29.7 | 67.0 | 33.0 |
|  | Middle class | 88.2 | 11.8 | 85.7 | 14.3 |
|  | Upper class | 95.1 | 4.9 | 94.8 | 5.2 |
| Objective class | Lower class | 68.4 | 31.6 | 66.5 | 33.5 |
|  | Middle class | 83.9 | 16.1 | 80.3 | 19.7 |
|  | Upper-middle class | 88.5 | 11.5 | 87.6 | 12.4 |
|  | Upper class | 92.3 | 7.7 | 86.3 | 13.7 |

*Source*: 'Media Consumption, Class and Culture' survey [Luthar et al. 2011]

Internet, gender, age, education, working position and class structure. Class distinctions between households in Ljubljana and Maribor were approached on the level of 'subjective class'—the personal self-perception of class strata—and the level of 'objective class', which derives from the distinction between individual profession and job position. Class differences were measured first on the level of subjective class, where individuals positioned themselves on a class scale from 1 (lower class) to 7 (upper class), which was subsequently recoded as a 4-point scale (lower or working class, lower-middle class, middle class and upper class). Here, the majority of the sample positioned themselves in the middle class (almost 50%), with 18% in the lower-middle class and 5% in the lower class. The

second measure focused primarily on the respondent's job profile and his/her status at work.[3] The empirical definition of objective class derives from a scheme of professional classes generated by Goldthrope [2000: 206–229].[4] In our research, the 9-point scale classification was re-coded to 4 separate units of what we called professional or objective class: (1) lower or working class—routine workers, lower services (43% of the sample); (2) middle class—middle job structure, services, self-employed (20%); (3) upper-middle class—lower or middle managers, higher job categories, professionals (23%); and (4) upper class—high managers, the highest job categories, directors (14%).

The image that the Internet is present in every Slovenian household is far from a social reality. The data reveal that the computer as a commodity, and the Internet as its extension, are more often in the hands of men, particularly younger men with a higher education and from a middle or upper-class background; conversely, almost one-quarter of women have no Internet access (23.3%). Another almost two-thirds of respondents over the age of 60 (60.4%) lack access to the Internet, as do more than half of those with the lowest level of education (56.2%). In addition, almost half of the lower or working class have no access to the Internet. Statistically, gender, education, age and subjective class have a significant impact, while the professional or objective class structure does not.[5] The higher the subjective class position, the more likely people are to have Internet and computer access at home; more than 90% of the upper class have both, while almost half of those from the lower class have no computer or Internet at home.

*Dimensions of digital access*

Since digital technology is understood as a social phenomenon directly related to everyday practices [Oblak 2011], digital exclusion is not viewed as simply the technical problem of access. The aim of this article is to identify the main social and cultural obstacles to digital access that account for people being offline. By

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[3] This class-profession division and education as a general indicator of institutionalised cultural capital was taken as a structural category in the empirical part of research, particularly as a 'working instrument and not as a final map of class structure' [Luthar and Kurdija 2011: 284–285].

[4] The division between the employed, the self-employed, the unemployed and the employers represents the primary level of this distinction; on the second level, Goldthrope differentiates different types of the employed in accordance with their opportunities: job security, stability of payment, level of autonomy, potential of mobility, chances for obtaining control within the employment hierarchy, etc. The application of this scheme can be found in several European empirical projects such as the ESS, the ISP, and the EVS.

[5] The statistical significance of mean differences between the respective subsamples was tested with One way ANOVA at a 0.05 significance level using SPSS. The results presented further in the text (e.g. in Table 2, Table 3 and Table 4) follow the same method and the same criteria.

**Table 2. Obstacles to Internet access (mean values)**

| I don't have Internet access because… | Gender | | Age | | | | City | | |
|---|---|---|---|---|---|---|---|---|---|
| | M | W | Under 30 | 30–45 | 46–60 | 61 or over | Ljubljana | Maribor | Mean value |
| I'm not interested in it. | 3.56 | 3.76 | 1.50 | 3.30 | 3.30 | 3.93 | 3.64 | 3.70 | 3.67 |
| I don't know how to use it. | 3.08 | 3.59 | 1.00 | 3.15 | 3.00 | 3.61 | 3.42 | 3.33 | 3.37 |
| Computers are too expensive. | 3.24 | 3.34 | 2.99 | 4.01 | 3.39 | 3.16 | 3.08 | 3.46 | 3.30 |
| The Internet connection is too expensive. | 2.89 | 3.31 | 3.40 | 3.52 | 3.27 | 3.00 | 2.89 | 3.30 | 3.13 |
| I'm a bit afraid of it. | 2.46 | 2.83 | 1.50 | 2.53 | 2.48 | 2.79 | 2.85 | 2.54 | 2.67 |
| I don't have time for it. | 2.31 | 2.78 | 1.50 | 3.04 | 2.45 | 2.59 | 2.57 | 2.58 | 2.57 |

*Source*: 'Media Consumption, Class and Culture' survey [Luthar et al. 2011].
Note: The respondents gave their answers on a scale from 1 – strongly disagree to 5 – strongly agree.

taking social and cultural insights into account, van Dijk's typology is appropriate because it goes far 'beyond access' [Selwyn 2004] and differentiates between different dimensions of access—motivational, material, skills and usage access [van Dijk 2006: 223–230]. Accordingly, 'motivational access' refers to the lack of basic digital experience, either owing to the absence of any interest in technology or rejection of the medium due to anxiety or a dislike of technical objects.[6] 'Material access', by contrast, implies a lack of technology as a physical object and absence of its technical application for Internet access.[7] 'Skills access' explains how a lack of digital skills is determined by a low education level, a lack of social support for learning about new technology or an individual's negative perception of the Internet as a 'dangerous' technology. 'Usage access' refers to differences in the time of use, the level of active or creative use and the diversity of applications and types of technical support accessed when using the Internet.

To avoid a polar distinction between users and non-users we selected a distinct set of reasons for not accessing the Internet by including six different items in the questionnaire (see Table 2)[8] that covered the first three dimensions of access:

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[6] Analysis of motivational access therefore includes those who are self-excluded non-users, either because of a lack of time or because of a lack of any need to use the technology that they dislike.
[7] Here, the differences between non-users are presented by socio-demographic statistics according to gender, education, profession and social status.
[8] The respondents gave their answers on a scale from 1 – strongly disagree to 5 – strongly

(a) two statements, about a lack of interest in the Internet and a lack of time to use the Internet, were employed to measure 'motivational access' (in line with van Dijk's model); (b) to measure 'material access' we asked about financial obstacles to purchasing a computer or organising an Internet account, assuming that material constraints generally refer to financial obstacles, and in order to differentiate such limitations from more 'latent' or symbolic factors like competences, skills or personal status within the household; (c) two statements about a perceived lack of knowledge and a fear of the technology measured 'skills access'. The assumption here was that fear of the Internet implies a more negative response to technology, similar to van Dijk's idea of technology as dangerous.[9] How these obstacles were structured by age, gender and sample city is shown in Table 2.[10]

Age and gender differences are statistically significant for all dimensions of access. The most vulnerable group are women, who perceive all sets of obstacles at an above average level, followed by elderly people, while the least sensitive are younger people and men. Gender, therefore, is far from an irrelevant factor in the process of adopting a technology. Indeed, the gender gap is indicative as it reveals a large number of obstacles faced by women, who use technology less than men [Janssen Reinen and Plomp 1997], and who, at least within family relationships, relate to the problematic aspects of technology more than men do [Oblak 2011]. There are also some relevant factors connected with location; respondents from Maribor claimed other material obstacles as well as having no interest in the Internet, while the sample from Ljubljana indicated value limitations (in the sense of fear) more strongly than their counterparts in Maribor.

*Who are the digitally offline?*

In conformity with a proposal by Bennett and his colleagues [2009], it is relevant to analyse the influence of gender, age and class in relation to different dimensions of access to digital technology. In this context, the analysis was focused on identifying 'types of digital exclusion' to evaluate whether some groups are more similar than others. Many studies have revealed that Internet access is closely related to education, gender and age, but much less effort has been made to identify the inner structure of the digitally excluded population and their cultural background, with some exceptions [Lenhart 2000; Selwyn 2006; Tondeur et al. 2010].

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agree. The reasons listed for not having Internet access were selected according to previous empirical research in Slovenia and did not include attitudes towards the Internet, unlike Lenhart's study [2000].
[9] Like the findings of the project 'Uses of the Internet in Slovenia' (2005), the data here showed that among non-users the strongest reasons given were a lack of interest (3.67), a lack of skills (3.37) and the price of computers (3.30).
[10] The sample of non-users in our study ($N = 156$) was limited to Ljubljana and Maribor.

Cultural aspects of digital access

Cultural distinctions, and their connection to digital exclusion, refer to differences in education, cultural competences, ownership of cultural products, concrete cultural engagement and media preferences. As Tondeur notes [2010: 154], cultural capital corresponds to certain cultural tastes and styles and participation in activities. These cultural practices are reflected in personal engagement in different cultural events, such as going to museums, galleries, concerts, theatres, films, opera, etc. Cultural aspects of digital exclusion were measured in accordance with Bourdieu's distinction between 'objectified' and 'embodied' cultural capital [Bourdieu (1986) 1997]. Objectified cultural capital refers to the material form of what we possess and to personal engagement in cultural consumption, so cultural engagement was measured using a list of different practices (going to movies, museums, out with friends for a drink, to the theatre, concerts, opera, ballet, or art gallery), which respondents ranked their participation in on a 1–5 scale, where 1 meant at least once a week and 5 meant never.[11] Objectified cultural capital also refers to the ownership of cultural products (including books, music, art collections, etc.) in the home and this was measured as the sum of the numbers of different cultural products that respondents owned (either film DVDs, books, music DVDs, etc.).

However, as Bourdieu [1997: 50] explains: 'To possess the machines, he only needs economic capital to appropriate them and to use them in accordance with their specific purpose he must have access to embodied cultural capital.' Cultural capital in its embodied form is a combination of cultural skills and knowledge (language skills, knowledge of literature, understanding of book culture, visual arts and films), which is understood as a product of history of material conditions within which we live and gain our cultural competences [Bourdieu (1986) 1997].[12]

Analysis of 'media consumption' was added to this discussion, not as a question of specific media tastes, but in relation to exposure to media, in particular to television (public and private), newspapers, magazines and online sources. The insight into media consumption is helpful for understanding the media contexts within which these groups differ, since many opposing views have emerged over how the 'new' media are changing the consumption of 'old' media [Bennett et al. 2009; Lash 2002; Poster 1995].

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[11] Consequently, the higher mean value in Table 4 for the indicators of this variable indicate *less*, not more, cultural engagement.
[12] Cultural skills in the field of literature (as a dimension of embodied cultural capital) were measured as an index constructed from a set of five book titles for which the respondents were asked to provide the correct author. In a similar way, knowledge of movie production was measured as an index constructed from five film titles. Understanding foreign languages was measured using two questions referring to two hypothetical situations: 'If you had to write an e-mail in a foreign language to a friend abroad, in what language would you be able to do so?'; and 'If you had to watch a movie with no subtitles, in what languages would you be able to understand it?'

**Table 3. Results of a cluster analysis (means, minimum and maximum values)**

| | Min. | Max. | Digitally unmoti-vated | Min. | Max. | Digitally overall excluded | Min. | Max. | Digitally self-exclud-ed | All |
|---|---|---|---|---|---|---|---|---|---|---|
| I'm not inter-ested in it. | 1 | 5 | 4.21 | 1 | 5 | 4.46 | 1 | 3 | 1.48 | 3.67 |
| I don't know how to use it. | 1 | 5 | 2.68 | 1 | 5 | 4.38 | 1 | 5 | 2.18 | 3.37 |
| Computers are too expensive. | 1 | 4 | 1.81 | 3 | 5 | 4.55 | 1 | 5 | 2.61 | 3.30 |
| The Internet connection is too expensive. | 1 | 4 | 1.81 | 2 | 5 | 4.14 | 1 | 5 | 2.73 | 3.13 |
| I'm a bit afraid of it. | 1 | 4 | 2.09 | 1 | 5 | 3.60 | 1 | 4 | 1.53 | 2.67 |
| I don't have time for it. | 1 | 5 | 2.49 | 1 | 5 | 3.20 | 1 | 5 | 1.46 | 2.57 |

Note: Hierarchical cluster analysis, Ward method, k-means optimised final solution.

## Typologies of digital exclusion

The aim of my analysis was thus to reveal the main differences in cultural capi-tal, media consumption and class structure among digitally excluded Slovenians. Identifying specific excluded groups involved conducting cluster analysis on all six items used to measure the reasons for having no Internet access,[13] which pro-duced three types of digital exclusion (Table 3). Finally, the key characteristics of each group were identified, including socio-demographic status, cultural capital and media consumption, according to the group's mean deviation from the sam-ple mean for each set of indicators (Table 4).

The socio-demographic variables that statistically differentiate the three types of non-users are gender, age, type of housing (in the sense of ownership vs renting the home) and employment status.[14] However, on the level of class differences, the three groups are differentiated only on a subjective dimension.

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[13] First, a hierarchical clustering based on the Ward method and Euclidian distance as a measure of dissimilarity between units was employed to determine the optimal number of types. The results (i.e. clustering into three distinctive groups) were then optimised using the k-means clustering approach to obtain the final solution.

[14] In the cross-tabulations for gender, age, education, class, employment status and type of housing, the differences between groups were tested with a Pearson's chi-squared test at a 0.05 significance level.

**Table 4. Types of digital exclusion according to socio-demographic characteristics, cultural capital and media use**

|  |  | Digitally unmotivated | Digitally overall excluded | Digitally self-excluded | All |
|---|---|---|---|---|---|
| Men |  | 56.8% | 30.8% | 51.4% | 42.8% |
| Women |  | 43.2% | 69.2% | 48.6% | 57.2% |
| Under 30 |  | – | – | 5.4% | 1.3% |
| 30–45 |  | 6.8% | 9.0% | 5.4% | 7.5% |
| 46–60 |  | 20.5% | 24.4% | 43.2% | 27.7% |
| Over 60 |  | 72.7% | 66.7% | 45.9% | 63.5% |
| Employed |  | 15.6% | 7.8% | 31.6% | 15.6% |
| Self-employed |  | 2.2% | – | 2.6% | 1.3% |
| Unemployed |  | 2.2% | 10.4% | – | 5.6% |
| Retired |  | 80.0% | 81.8% | 65.8% | 77.5% |
|  | *Education* |  |  |  |  |
|  | Elementary school | 11.6% | 37.7% | 30.6% | 28.8% |
|  | 3-year secondary school | 20.9% | 28.6% | 2.8% | 20.5% |
|  | 4-year secondary school | 41.9% | 26.0% | 58.4% | 37.9% |
|  | Higher education | 25.6% | 7.8% | 8.3% | 12.8% |
|  | Objectified level: |  |  |  |  |
|  | *Cultural non-engagement* |  |  |  |  |
|  | Not visiting museums | Less | Very often | Average |  |
|  |  | 4.28 | 4.75 | 4.55 | 4.58 |
| Cultural capital | Not visiting art galleries | Less | Very often | Less |  |
|  |  | 4.41 | 4.84 | 4.53 | 4.65 |
|  | *Cultural products* |  |  |  |  |
|  | Number of original music products | Little | Very little | Average |  |
|  |  | 47.64 | 19.38 | 101.47 | 98.26 |
|  | Number of books | A lot | Little | Average |  |
|  |  | 175.97 | 74.25 | 105.22 | 110.19 |
|  | Embodied level |  |  |  |  |
|  | *Cultural skills* | Very high | Very weak | High |  |
|  | Knowledge of literature | 1.36 | 0.48 | 1.29 | 0.91 |

**Table 4. Types of digital exclusion according to socio-demographic characteristics, cultural capital and media use**

|  |  | Digitally unmotivated | Digitally overall excluded | Digitally self-excluded | All |
|---|---|---|---|---|---|
|  | Public TV (SLO1+SLO2) | 46.5% | 33.3% | 25.6% | 35.0% |
|  | Commercial TV (POPTV) | 27.9% | 48.7 | 46.2% | 42.5% |
| Media Use | Watching TV news | Low | High | Very low |  |
|  |  | 2.75 | 3.27 | 2.56 | 2.96 |
|  | Accessing online media news | Average | Very low | High |  |
|  |  | 0.11 | 0.03 | 0.24 | 0.10 |
| *N* |  | 44 | 74 | 37 | 156 |

Note: The types of digital exclusion (columns) were derived from hierarchical cluster analysis. Mean differences for the differentiating variables (rows) are statistically significant at 0.05.

The professional or objective class structure has no significant correlation with any type of digital exclusion. Similarly, the three groups are not determined by economic capital, nationality, years of schooling or political preferences. The three exclusion groups are: (1) digitally unmotivated with high cultural capital; (2) overall excluded with weak cultural capital; and (3) digitally self-excluded with moderate cultural capital.

(1) *Digitally unmotivated, but culturally competent, oriented in traditional media (28% of those with no access)*: The first group includes almost a third of those with no access and who seem to be excluded for one reason only—a lack of motivation—as they strongly agree that the reason they do not have the Internet is their lack of interest in it. Access is not limited by economic constraints; on the contrary, both measures of material access—the cost of an Internet connection and the cost of a computer—are below average. In addition, the factor of skill level is not relevant for this group, which is dominated by men. This is on average the oldest group, consisting mostly of retired men with a higher level of education. In this case, digital exclusion is not a structural social problem, but the result of a specific perception of what the Internet is or, perhaps more accurately, what it is not. Access to the Internet is not limited in an economic or material sense, but because of the specific symbolic meaning attached to it. This is also evident through the level of objective cultural capital, as this group has the largest share of books at home and has cultural skills and a high level of cultural engagement. Compared to the other two digitally unmotivated clusters, they have the most positive attitude towards reading and are the ones who most often frequent museums and galler-

ies. In the media panorama, they prefer Slovenian public television and a large percentage read newspapers. Most of the respondents in this group are retired or unemployed, and most also live in their own (not rented) homes.

(2) *Digitally overall excluded, culturally weak, oriented in infotainment (47% of those with no access)*: This, the largest group, comprises those excluded from the digital world in the sense of material, motivation and skills; material obstacles, a lack of skills and a lack of interest are what they perceive as complicating their access to the Internet. The underlying factors for this type of exclusion are much broader than for the previous group: the obstacles are financial, relating to the purchase of both a computer and an Internet account; the difficulties also derive from a lack of knowledge, fear of technology and lack of interest. Exclusion in this sense appears general, as all mean values are well above average. In contrast to the first group, its members are mostly women (almost 70%), less educated (two-thirds with only primary or vocational school qualifications) and younger, but like the first group they are mostly unemployed (retired or non-working status). At the level of cultural participation, two practices of high culture are significantly absent in this group (museums and galleries), while for the other cultural events (going to the movies, clubs, concerts, opera, theatre, etc.) the data show no statistical differences between the groups. Nevertheless, this absence from particular cultural venues is mirrored in embodied and objectified cultural capital, as this group possesses particularly weak cultural competence and limited access to cultural products (books and music). With regard to media consumption, overall the group represents an infotainment audience; compared to the two other groups it has an above-average exposure to informational and documentary TV genres, but strongly prefers Slovenian commercial TV. The data also show that, overall, this group is, as expected, illiterate online.

(3) *Digitally self-excluded, culturally moderately competent, oriented in commercial media (24% of those with no access)*: The last and numerically the smallest digitally excluded group is diametrically opposed to the second one, as all mean values relating to the selected obstacles are below average. For this group, money, knowledge and time are not problems, and even their motivation is not too low, and these respondents are not afraid of technology. It seems that the reasons for their exclusion lie elsewhere. Perhaps Internet access is limited only in their private sphere and they have opportunities to get online outside their homes; maybe the list of obstacles we used was not exhaustive enough; or it is possible this group represents what van Dijk labelled 'intentionally excluded non-users'. The specific characteristics of this sample of non-users are that it is the youngest group, it structurally belongs to the 'middle generation', its members mostly have a secondary level of education, almost one-third of them are employed and the group contains an equal number of men and women. In the cultural sense, however, this self-excluded group is less competent than the first but more competent than the second, having at home more music products than books and possessing above-average literacy skills. Their media practices are again more

like the first group than the second, although they share with the overall excluded group the preference for commercial over public TV.

In a cultural sense, we could say that the first and third groups share similarities, while in media consumption the second and third groups have more in common. The overall digital exclusion is in this context strongly related to weak cultural capital, as it is positively related to low objectified cultural capital (with low engagement) and low embodied cultural capital (with low cultural competence), which in media consumption is represented by a taste for infotainment. Meanwhile, the offline status of this group is connected to its wider cultural exclusion. Digitally unmotivated group on the other hand is compensated for by strong cultural capital on both levels, where engagement in high culture is above average, with strong cultural competences and a devotion to book culture. In a media sense, this group represents a traditional public audience, which trusts traditional newspapers as the most credible sources of information. However, the third type of digital self-exclusion differs greatly; it neglects classic 'serious' news media and prefers commercial entertainment, exemplified by the presence to a great degree of music culture and moderate cultural literacy skills.
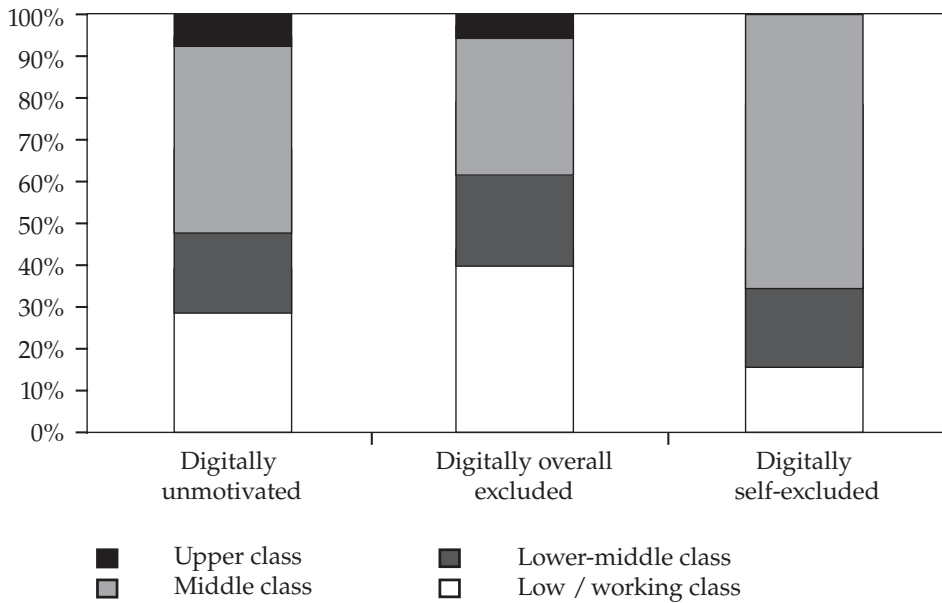
How does class matter?

Our analysis indicates that the third determinant that differentiates motivational, overall and self-exclusion is class structure. However, in the Slovenian case the data highlight significant differences only in the subjective perception of class position, while objective class has no significant impact on the three digitally excluded groups (see Figure 1).

In the sense of having a subjective class-based structure, the most homogeneous group are the digitally self-excluded, of which a great majority belong to the middle class (66%), with almost equal proportions of lower-middle class (19%) and low or working class (16%). This is the only group not to contain members from the upper class. On the contrary, the digitally overall excluded group is strongly determined by class structure: 40% subjectively belong to the low or working class and 23% to the lower-middle class, together accounting for two-thirds of the entire group. The digitally non-motivated group is the most differentiated by class, with a low (but still the highest of the three groups) proportion of upper class (7%), but also with almost a third of its group drawn from the low or working class (29%). Class, therefore, does matter, but rather than as a status objectified by class position, it matters as seen from a subjective, self-perceived standpoint.

In line with the cultural perspective, these results confirm the relevance of lifestyle and consumption, which are critical angles from which to evaluate the impact of new forms of communication technology but, contrary to this perspective, diminish the importance of occupation and status in determining access to the Internet [Witte and Mannon 2010: 86]. In the Slovenian case the differences

**Figure 1. Subjective class by types of digital exclusion**



Note: The differences between class groups by type of digital exclusion were tested with One way ANOVA.

in digital access relate more to a personal perception of class position, but not directly to status or differences in occupational prestige. Instead, the analysis shows that digital distinctions are determined more by culture than class. The problem of access to the digital technology in Slovenia is therefore not a uniform phenomenon, but a multidimensional combination of structural obstacles (over-all exclusion), micro limitations (motivational exclusion) and self-choice (intentional exclusion). In this sense, the study confirms the notion of a digital divide as a 'function of deep-seated and enduring social inequalities' [Sparks 2013: 38], which has come to act as a significant factor in these same inequalities.

## Conclusion

In the two biggest Slovenian cities there exist three distinctive types of digital exclusion significantly related to aspects of three determining factors: cultural capital, media consumption and class. The absence of Internet access is not necessarily an indicator of economic capital but more of cultural distinctions, which in a larger sense refer to participation (or non-participation) in high culture, specific cultural competences and selective media consumption. Offline culture is therefore

specifically related to the divide between high and pop culture, and technological choice (and its opposite—no choice) is, in line with the theory of cultural capital, strongly conditioned by cultural engagement and media taste. The analysis of Internet non-users as a material phenomenon limited to the question of technical issues is therefore a reduction in itself if it neglects important cultural contexts. Such a finding from Internet studies of the Slovenian population would appear to urge calls for a new research focus: to overlook cultural aspects within the empirical analyses of Internet practices neglects the intertwining of the Internet with wider popular culture and general knowledge of the media environment.

Internet access is obviously not a homogeneous phenomenon, as many other studies have stressed [Chadwick 2006; Selwyn 2004; Tondeur et al. 2010; van Dijk 2006]. There are many digital gaps and different types of exclusions, which have been articulated previously in relation to mobile phones, at least in Slovenia [Luthar and Kropivnik 2011; Petrič, Petrovčič and Vehovar 2011]. Appropriation of technology is only in an extremely limited sense a result of individual choice, since most digital exclusion is actually a response to structural tensions, in the form of economic status, lack of skills and a perception of technology as a useful (or not useful) tool, that appear to correlate strongly with educational achievements. Internet use and non-use is, as demonstrated here, an important cultural marker that bridges distinct social divides.

What aspects of digital exclusion are more relevant—cultural or class divisions? According to the analysis, we could argue that both play a significant role, but in highly specific and limited terms. What seems obvious is that the digital world is not exclusively a place for social mobility or class emancipation, just as it would be wrong to suggest that it is the main source of social inequalities. On the contrary, empirical analyses have shown that there are many different 'digital gaps', and it is more useful to refer to various facets of digital stratification than to talk about a divide. The concept of a digital divide requires, in this sense, a more apt description, such as a 'digital spectrum' [Guerrieri, Bentivegna and Melicana 2010: 14–16]. Given this view, this study strongly supports those theses that refuse to acknowledge new technologies as the most prominent factor in digital gaps and instead argue how the digital divide itself is an indicator of social differences [Tondeur et al. 2010; Mossberger et al. 2008; Quan-Haase and Young 2010]. Prominent notions about how the Internet is accessible to everyone, how the costs it involves are low, and that there is no connection between its use and a person's structural position—except perhaps in relation to a subjective choice—are far from correct. And as there is not just one 'digital culture', but many different kinds of technological appropriation, usage, knowledge and affordances, the history of the Internet's development and its recent practices continue to demonstrate how it nevertheless gives prominence to some cultural trends over others [Kendall 2002: 185]. Internet skills (or the lack of them) in this sense have become an important factor that increasingly determines a person's position in the labour market and in social life [van Deursen and van Dijk 2011:

908]. In addition, Bakardijeva stresses that 'if the Internet is to be developed as an equitable social resource, the actual circumstances and substantive interests in low-tech users have to be taken into account by software and service designers, as well as content providers' [Bakardijeva 2005: 98].

However, understanding the users and diverse uses implies understanding the motivations and aims of the users themselves, in combination with detailed personal information relating to other media content and cultural practices. Such knowledge can only be obtained through much closer engagement with the user's world, which implies a micro-sociological approach to grasp the meaning of particular behaviour. In this context, the motivations and pleasures, as Sparks correctly adds [Sparks 2013: 32], of social groups who, for instance, choose not to have Internet access can only be properly understood if they are studied as authentic human cultures. In addition, important social changes show how intensively these technologies are woven into the fabric of daily life, such as increasing international mobility, the provision of leisure and entertainment services, changing patterns of education and coping with the impact of ageing [Sparks 2013: 29]. Thus, as Selwyn's study already highlighted [2004: 357], it is of the utmost importance that not only academics, but also politicians, practitioners and all others in the information age adopt a more sophisticated and realistic view of the digital divide and the range of inequalities that currently exist. This study, although limited to a small and nationally limited case, has provided an initial starting point for such ambitions to be realised in the future. Another such call, in a wider context, is for a policy of European e-Inclusion, under which we would need to create 'an Internet ecosystem which has its foundations in a social system that promotes the economic development and social welfare of its citizens by reducing inequality in all its various aspects' [Guerrieri, Bentivegna and Meliciana 2010: 139].

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