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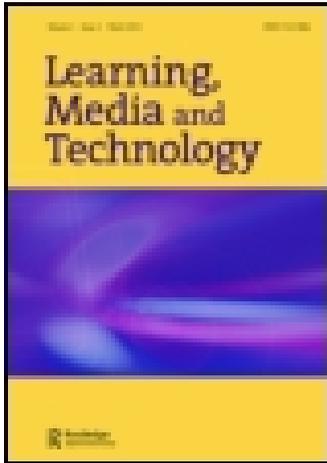
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Toppling hierarchies? Media and information literacies, ethnicity, and performative media practices

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This article suggests how we should study media and information literacies (MIL) and do so at a time, when young people nurture these literacies through multiple media practices and across spaces of learning. Our basic argument is this: in order to gain a robust knowledge base for the development of MIL we need to study literacy practices beyond print literacy and numeracy, and we need to study these practices beyond formal spaces of learning. The argument is unfolded with particular focus on ethnic minority youth since this group routinely figures as under-achieving in studies of school literacy, such as Programme for International Student Assessment. Based on a brief overview of literacy studies in view of digitization and a critical examination of recent studies of youthful media practices and ethnicity, the argument is illustrated through an empirical analysis that draws on results from a nationally representative survey of media uses among Danes aged 13–23 years. The analysis demonstrates that ethnic minority youth offer the most serious challenge to existing literacy hierarchies found in formal education. We discuss the implications of these results for educational policy-making and for future research on MIL, advocating inclusive approaches in terms of media for learning and spaces of learning.

Keywords: content creation; ethnicity; learning; media and information literacies; media uses; SNS; social media communication

In December 2013, the results were released of the latest Programme for International Student Assessment (PISA) test conducted in 2012. PISA focuses on student attainment in the age band 15–16 years in reading, mathematics and science; it has been conducted since 1997 by the Organisation for Economic Cooperation and Development (OECD) with three-year intervals, and the latest test encompassed 65 countries. As with previous PISA reports, the results sent shock waves across the educational sectors in many countries; and they mobilized debates on national policy-making whose focus depends on

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individual countries' movements up or down the ranking scale. The European Commission's press release, for example, illuminated this focus:

The EU as a whole is seriously *lagging behind* in maths, but the picture is more encouraging in science and reading where Europe is *on track* to achieve its 2020 *target* for reducing the percentage of low achievers to below 15%. (European Commission 2013, n.p., Authors' italics)

Why Europe takes this position was indicated by Jan Truszczynski, Director General of the DG Education and Culture at the European Commission, in his speech on the launch of the report in Brussels: 'PISA 2012 shows that the socio-economic background is a powerful factor determining achievement [...] In addition, migrants often do not perform as well as native-born citizens' (Truszczynski 2013, n.p.).

The launch of the PISA report in 2013 offers an important insight into one of the key contestations for education today, namely what future competencies are and should be and how they may be studied. Here, an important European player is the OECD. As noted, it is in charge of the PISA tests and reports, whose focus on reading, mathematics and science indicates that these are key competencies. But, in tandem with PISA, the OECD in 1997 launched a project – Definition and Selection of Competencies (DeSeCo) – to define future key competencies in knowledge societies. In its final report, the OECD defines three core competencies as follows: (1) interactive use of tools, (2) interaction in heterogeneous groups and (3) autonomous action (Rychen and Salganik 2003). These competencies are not easily grasped by the PISA tests. This is primarily because PISA focuses on formal schooling, while young people's training of the DeSeCo competencies takes place beyond the school gates (Arafeh and Levin 2002; Erstad 2010; Zickuhr 2010). Moreover, their training of DeSeCo competencies involves the appropriation of a multitude of digital and increasingly portable media that goes well beyond the educational use of print media and internet-linked computers for information search (Drotner 2008; Ito et al. 2010).

In more general terms, the conflictual nature of OECD's definition speaks to a situation in which competence formation is being distributed across a range of sites and settings (Leander, Phillips, and Taylor 2010): school no longer holds a monopoly on learning. It also speaks to a situation in which competencies are fundamentally being transformed into media and information literacies (MIL). By this we mean that the handling of semiotic tools of meaning-making – be they figures, text, sound or images – are at the core of competence formation (Drotner 2007). These semiotic tools are increasingly shaped, shared and stored through the appropriation of digital media – whether they are 'born' digital (mobiles, computers and the internet) or 'made' digital (television, radio, books and newspapers): the book no longer holds a monopoly on literacy.

This article addresses the digitization of literacy formation and the dispersion of learning sites for young people. In order to better understand how

this dispersion plays out, we examine media practices across a broad spectrum of media, not merely traditional print media such as books or merely recent digital technologies such as computers and the internet; and we discuss how these practices may offer resources for MIL. We also hone in on young people's everyday media practices beyond formal education. For in order to gain a robust knowledge base for the development of MIL, we need to study literacy practices that go beyond PISA's focus on print literacy and numeracy; and we need to study these practices not only in schools and at work, but equally beyond those formal spaces of learning.

Everyday media practices beyond formal sites of learning are contextualized processes related to interlaced differentials of region, age, class, gender and ethnicity. Our empirical analysis examines the relations between everyday media practices of ethnic majority and minority groups. This relation is sought out for particular attention, because ethnicity is routinely referenced as a key factor of literacy (under)achievement at school, as indicated by Truszczyński's position quoted above. Moreover, the dimension of ethnicity is singled out because it is as understudied by media audience research as it is central to discourses of educational achievement. In more concrete terms, we ask: What characterizes the relations between everyday media practices of young ethnic majority and minority groups? How do these empirical relations tie in with public priorities on literacy and ethnicity? And how can our results inform a future-directed understanding of MIL? Providing answers to these research questions are important for two reasons. First, they allow a critical examination of seemingly self-evident and widely held assumptions about the relations between education, literacy and ethnicity. Second, they help sketch a path for a more granular, theoretical understanding of MIL.

The article briefly situates its research questions through critical overviews of prevalent literacy concepts and their relations to MIL, and of recent studies conducted on youthful media practices and ethnicity. Then illustrative answers are provided through an empirical analysis that draws on results from a nationally representative survey of media uses among Danes aged 13–23 years (Kobbernagel, Schrøder, and Drotner 2011). Finally, the main results are discussed and related to their wider implications for educational policy-making and for future research on MIL, advocating inclusive approaches in terms of media for learning and spaces of learning.

Literacy studies beyond print

Following socio-cultural learning theories, material and symbolic tools may be defined as keys to learning and knowledge production (Wertsch 1998). Today, digital media is a catalyst in transforming the very fabric of knowledge production towards semiotic tools for situated meaning-making (Drotner 2008); or what the Swedish education researcher Roger Säljö calls 'discursive tools' (Säljö 2000). Furthermore, digital – and increasingly portable – media serves

to further disperse arenas of learning because they are not bound to specific locales or times of use. It is, therefore, important to spell out how these changed aims and means of knowledge production impact our understanding of literacy.

An important implication of the transformation of knowledge production is that the once-familiar concept of literacy is being questioned and refashioned. Rather than a concept involving the ability to handle written text (read and write) and manipulate numbers (arithmetic) through the use of print media such as books, today we have a range of bundled literacies. Some scholars, coming out of information science and research on human–computer interaction, focus on changing tools, or technologies, as drivers of people’s changing literacies. Others, with a background in audience studies or socio-cultural traditions of learning, focus on people’s changing modes of meaning-making and appropriation of literacy through different technological means (see overview in Drotner and Erstad 2014). Arguably, we need a ‘multi-dimensional’ concept of literacy (Park 2012) that is inclusive in terms of technologies (Graham and Goodrum 2007) and attuned to appropriations beyond mere access (Hobbs 2008).

In particular, a multi-dimensional concept of literacy must include what may be termed ‘performative media practices’, by which we mean practices to do with the shaping, editing and sharing of the semiotic content. Writing is the key performative dimension of traditional literacy practices – new content is produced through the creation of letters, words and numbers. But with digitization, this performative dimension potentially undergoes quite dramatic changes: software tools and distribution services are easily available in many parts of the world whereby users may produce, edit, store and share images, sounds, texts and numbers – and mixtures of these.

Here, we follow UNESCO’s definition of MIL as a ‘composite concept’ to ‘understand the functions of media and other information providers, to critically evaluate their content and to make informed decisions as users and producers of information and media content’ (UNESCO 2012, n.p.). MIL are widely accepted and adopted in policy circles and hence carry weight in terms of educational action if the concept can be aligned with robust, empirical action. In research terms, the term is useful, since it indicates that literacy is a particular competence, namely the relevant use of semiotic tools for meaning-making; and media is defined as a conglomerate of meaning-making technologies that catalyses this competence formation.

Still, in studying MIL we need to go beyond the formal contexts of schooling (and the ramifications of PISA tests): we need to also capture how MIL are resourced through media practices. This is because MIL are nurtured through media users’ appropriation of a multitude of digital and increasingly portable media, and these appropriations are primarily exercised in out-of-school domains. Some of these may be termed informal learning spaces, where people use media without any intention of gaining knowledge. Others may

be termed semi-formal learning spaces that people intentionally enter to explore, perhaps with guidance, but often with little or no explicit learning outcomes (see the overview of terms in Drotner 2008). In order to fully understand how MIL are resourced, we need empirical research designs that encompass a multitude of media and practices. Equally, we need granular analyses of MIL users and their socio-cultural relations, including the relations between ethnic majority and minority users. The latter analyses must be based on equally granular conceptualizations of media and ethnicity.

Ethnicity and media studies

In a meta-analysis of European media studies and ethnic minority audiences, Swiss media researchers Bonfadelli, Bucher, and Piga cogently remark that ‘in relation to studies of ethnic representations in the media, studies of ethnic minority audiences remain a rarity’ (2007, 149). This situation makes it extra important to chart theoretical and empirical trends of this user approach. As Bonfadelli and colleagues also note, studies of ethnic minorities’ media practices follow main fault lines in media studies at large. Effects studies focus on the impact of media uses on social integration (Peeters and d’Haenens 2005); uses and gratifications studies focus on ethnic minorities’ preferences for so-called majority and minority media (Adoni, Cohen, and Caspi 2006), and these terms are often linked to host country productions (majority media) or home country productions (minority media) (Elias and Lemish 2008; Dhoest, Nikunen, and Cola 2013). Both effects studies and uses and gratifications research mainly take quantitative, survey-based approaches. Conversely, audience studies primarily adopt qualitative approaches, such as discourse analysis, semiotic analysis or ethnographic-oriented analysis. The aim is to uncover how particular ethnic groups make sense of particular media or genres as part of their everyday identity work (for classic studies, see Fuglesang 1994; Gillespie 1995). Some combine an audience and a production perspective to illuminate clashes between minority audiences’ interpretations and majority media producers’ tacit assumptions (Cottle 1997; Sreberny 1999). Across research traditions, studies of ethnic minority groups’ media practices often rest on normative epistemologies. Some of these deal with the role played by media in processes of social integration, while others seek to validate minority groups in terms of their media practices.

Such normative approaches have been challenged by more recent attempts to focus on ways in which ethnic minority groups encapsulate late-modern identity formations where the internet, mobile media and transnational film and television catalyse constant negotiations of self and other in everyday life – what the British media researcher Myria Georgiou terms ‘a multilayered belonging’ (Georgiou 2006, 22). Rather than defining ethnicity as a particular social (or indeed racial) entity, these studies focus on what may be termed ‘relational’ conceptions of ethnicity, that is to say ethnicity enters into complex analytical

constellations with class, gender, location and generation; and these constellations are studied with a view to asymmetrical power arrangements – in line with more recent anthropological understandings (Wilmsen and McAllister 1996).

For example, in a recent overview of research on migrant families' media uses, Dutch media researchers Dhoest, Nikunen, and Cola cogently note: 'Generations are not determined by age in itself, but rather by membership of a cohort: having the same age at the same time and sharing particular media technologies and contents, particularly in childhood and adolescence' (2013, 20). Such a relational conception of generation equally applies to conceptions of ethnicity. In empirical terms, mapping networks of relations rather than charting binary entities also offers a useful approach. For it minimizes the risk of defining, for example, ethnicity as a fixed category that has no bearings on other categories, while at the same time facilitating categorization in the first place. Particularly when conducting quantitative analyses, such categorizations are a prerequisite for the research design. In our empirical study, we attempted to balance the need for flexible and fixed categories by strengthening a relational understanding of ethnicity.

Method and sample characteristics

In 2010, we conducted a national survey of media practices for Danes aged 13–23 years. In a national context, our survey is the first quantitative study that allows for granular relational analyses of the entire media ensemble related to age, education, gender and ethnicity. Here, we report on the results to exemplify what is important to adhere to in the wider discourses around MIL in general and aspects of ethnicity in particular.

Based on our literature reviews, we adopted an inclusive approach in terms of media whether they are 'born' or 'made' digital as defined above. We also adopted an inclusive approach in terms of media practices in the sense that we capture both modes of media reception (e.g., reading a book and watching television or a *YouTube* clip) and 'performative media practices', by which we mean practices to do with the shaping, editing and communication of content. We pay particular attention to these practices because they are defined as key means of training the most advanced forms of MIL (Everett 2008; Hobbs 2008; Hull and Kenney 2008; Wildermuth 2010). At the same time, performative media practices are taken up by the fewest young media users (Livingstone and Haddon 2009; Ito et al. 2010), and hence these practices are particularly illuminating in terms of the wider discourses of ethnicity and literacy formation as resources for future learning. We focus on content creation and communication via social network sites (SNS) to document performative media practices, because here users can easily communicate, create and comment, share and assess; and they do so through the use of text, image, sound and multimodal graphics.

In terms of user groups, we adopted the relational concept of ethnicity and operationalized it into three categories: Children of Danish descent, children of migrants and migrants to be able to investigate group differences on the set of media activities selected. The empirical data-set consists of a representative national sample of $n = 2209$, randomly selected. Young people were invited by postal letter and responded to an online questionnaire in November–December 2010, and we obtained a response rate of 38%. The sample was tested positive for representativeness on domestic background of the respondents corresponding to the population statistics of the five regions in Denmark ($X^2 = 5.258, p < .261$), and was iteratively weighted on age, gender and ethnic background to closely match the Danish population aged 13–23 years.

As for the sample distribution of country of birth, migrants are for the most part born in Middle East countries (34.3%), such as Afghanistan, Iraq, Iran and Turkey. A lower proportion is born in Western Europe (29.4%), such as Norway, Sweden, Iceland, the Netherlands and Germany, and in Eastern Europe (24.1%) with the majority coming from Romania, Lithuania and Bosnia-Herzegovina. The rest of the migrants are primarily born in Africa and Asia (12.1%), mostly Somalia, Russia and Vietnam. Demographic information was derived on gender, ethnicity and parents' education (used as a measure for socio-economic status, see Hargittai 2007, 280).

To operationalize media practices, a series of 40 activity items were constructed so as to cover all main media technologies and types of media use relating to practices of media of reception and performative media practices. Based on the following question: 'If you think of last week, try to remember how many times you have used [the media] ...', responses were given using the Likert scale 1 = 'not at all', 2 = 'once in the week', 3 = 'two or three times in the week', 4 = 'four to six times in the week', 5 = 'once per day' and 6 = 'several times per day'. The following analysis focuses first on mean differences in media uses across three groups of respondents: Danish descendents ($n = 2018$), Children of migrants ($n = 102$) and Migrants ($n = 89$). A series of ANOVAs were conducted followed by Bonferroni post hoc tests to show differences in detail.

Then, we hone in on content creation and communication via SNS, two performative media practices that are of particular relevance for developing advanced forms of MIL as noted. To determine the conceptual validity of these two practices, we conducted an exploratory factor analysis to see whether patterns would emerge. Through the factor analysis, we tested whether it would make sense to treat the variables as indicators of the two performative media practices: content creation and communication via SNS. MANOVA was then used to create a multivariate general linear model to analyse what impacts, that is, variations in means, can be found as a result of the variables gender, educational level, parental education and ethnicity when their interaction is taken into consideration (Meyers, Gamst, and Guarino 2006).

Ethnic minority youth topple discourses on print media

Applying an inclusive approach to media technologies (print, audio–visual and digital) and to media activities is the key to capture how MIL are resourced through everyday media practices. Analysing our results from the ANOVA with a view to ethnicity, we find clear differences in terms of respondents' most popular media practices as given in Table 1.

The ANOVA shows statistical significant differences between the groups for 'texting', 'watch TV', 'SNS chat via computer', 'write or read email', for 'chat via other computer services' and 'internet use for leisure'. In overall terms, this pattern shows that, relative to ethnic minority groups, ethnic majority groups have a higher frequency in using texting, SNS via computer (in Denmark *Facebook* is a primary choice) and watching TV. Conversely, ethnic minority groups have a higher frequency of chatting via computer, of using internet for leisure pursuits, and – for migrants – of using email. The latter results are mirrored by Bonfadelli, Bucher, and Piga (2007), who find that minority and majority (Swiss-born group) youth are different in their use of online resources. Naturally, most media technologies may serve a range of functions such as

Table 1. Most popular media accessed on a daily basis, mean comparisons across three ethnic groups of Danes aged 13–23 years.

Activity	Danish descent	Children of migrants	Migrants	$F(2)/df$ within groups	Effect size (η_p^2)	P
Texting	5.6 ^{a,b,***}	5.3	5.2	9.847/2195	.010	.01
SNS via computer	5.0 ^{a,b,**}	4.8	4.9	22.33/2195	.020	.01
Watch TV	4.9 ^{a,b,***}	4.7	4.1	17.56/2199	.016	.01
Telephone	5.5	5.7	5.8	3.347/2195	.003	.035
Internet use for education	4.0	4.0	4.1	1.369/1761	–	.255
SNS chat via computer	3.9	4.6 ^{c,*}	4.3	9.294/2022	.010	.01
Write or read email	3.8	3.9	4.5 ^{c,*}	9.251/2185	.008	.01
Listen to radio	3.7	3.3	3.3	3.975/2199	.004	.019
Chat via other computer services	3.2	4.1 ^{c,*}	4.0 ^{c,*}	20.482/2186	.020	.01
Internet use for leisure	2.2	2.8 ^{c,*}	2.7 ^{c,*}	14.21/2186	.013	.01

^aStatistically significantly higher than Children of migrants.

^bStatistically significantly higher than Migrants.

^cStatistically significantly higher than Danish descendents.

* $p < .01$.

** $p < .05$ ($n = 2209$).

information, entertainment and communicative contact, and our survey allows no specification of these functions. Still, based on audience studies of television, of the internet and of SNS (Buckingham 2000; Ito et al. 2010; Livingstone et al. 2011) our results suggest that for leisure entertainment informants of Danish descent orient themselves towards traditional television while minority youth are more attuned to adopting the internet. Moreover, minority youth are keener users of instant communication such as chatting.

In terms of print media, ethnic minority youth are more active daily as readers in out-of-school contexts than are majority youth. Overall, the ANOVA shows statistical significant differential reading of 'books' and 'cartoons' across the three groups of ethnicity (Table 2). Although effect sizes are rather small, the result is worth noting since it suggests differences in book reading, the epitome of traditional literacy training in formal education, that are at odds with received notions of literacy as expressed, for example, by Truszczyński earlier. Interestingly, our result is corroborated by a study, conducted in 2010 on 9–12-year-old Danes' book reading in out-of-school contexts demonstrating that 66% of minority children against 59% of majority children read almost every day or several times a week. Moreover, markedly more minority children read to gain information: 71% against 51% majority children (Hansen 2012, 8, 12).

These findings topple Danish PISA results on literacy that systematically document underperformance of ethnic minority youth. The PISA performance results have impacted the Danish discourse on literacy achievement which is divided along binary lines of ethnicity (Danes/non-Danes = achievers/under-achievers) and marked by an intense focus on book reading in school, in addition to mathematics and science.

The latest Danish PISA report on ethnicity and education is based on the 2009 study. The authors briefly note 'a remarkable result', namely that 'pupils of immigrant background demonstrate a larger engagement in leisure

Table 2. Use of print media, mean comparisons across three ethnic groups of Danes aged 13–23 years.

Reading activity	Danish descent	Children of migrants	Migrants	$F(2)/df$ within groups	Effect size ()	P
Books	2.8	3.0	3.4 ^{a*}	5.975/2199	.005	.01
Newspapers	2.4	2.5	2.6	1.543/2199	–	.21
Magazines	1.9	2.0	2.1	1.157/2199	–	.31
Cartoons	1.4	1.6 ^{a**}	1.7 ^{a**}	1.585/2199	.005	.01

^aStatistically significantly higher than Danish descendents.

Statistically significantly higher than Children of migrants.

Statistically significantly higher than Migrants.

* $p < .01$.

** $p < .05$ ($n = 2209$).

reading [than pupils of Danish descent], and there are no significant disparities of engagement between first and second-generation immigrant pupils' (Egelund, Nielsen, and Rangvid 2011, 24). Nothing is made of this finding, however. It does not figure in the resumé of overall results for ethnic minority pupils; it does not enter public discourse; and it has not changed the PISA research design in any way, as is evident from the 2012 PISA reports.

The question of what counts as relevant literacy practices looms even larger when media practices other than reading are involved. As already noted, performative practices to do with the mediated shaping, editing and sharing of semiotic content are among the most advanced forms of MIL and the most difficult to attain. So, it seems of particular interest to uncover how media practices resourcing these forms play out relative to variables such as gender, education and ethnicity.

Performative media practices and ethnicity: a combined perspective

A recurrent issue in studies of ethnicity and media uses is which background variables have the biggest effect on patterns of use (d'Haenens et al. 2002; Bonfadelli, Bucher, and Piga 2008). For the reasons given above, we wanted to examine this issue with regard to the advanced performative media practices of content creation and of communication via SNS. To explore relationships among variables of these media practices, we conducted an exploratory factor analysis. The analysis demonstrates that practice indicators for SNS communication (factor 1) and content creation (factor 2) have internal correlation. The results are given in Table 3.

So, the result suggests that it is meaningful to analytically separate two factors and analyse SNS communication (factor 1) and content creation (factor 2) as two distinct media practices, because relationships within each of the groups of variables are quite strong. Although the result should be regarded as only indicative, it supports the idea that each of these two media practices can be conceptualized into a model that takes interaction effects into account. MANOVA was chosen because we wish to understand the joint relational effect on background variables of each of these practices: (1) SNS communication and (2) content creation. Since we aimed at optimizing differences in terms of the background variables, one model was built for SNS and another for content creation. Only main effects are included in the models, post hoc tests were performed using least significant difference, and Pillai's trace is used to account for explained proportion of variance (eta square). The models are built with means for each category of the following independent background variables: gender, educational level, parental education (mother and father) and ethnic group membership. The mean effect of the independent background variables on the dependent social media communication and content creation variables is calculated on the basis of an underlying

Table 3. Rotated component matrix of exploratory factor analysis and descriptives of practice indicators, Danes aged 13–23 years.

Media use for content creation and SNS communication	Factor 1	Factor 2	<i>M</i>	STD
Uses computer design software		0.80	1.77	1.30
Uses images from the web		0.74	2.30	1.57
Download/edit digital content		0.75	2.39	1.64
Takes pictures (photo and video)	0.35	0.44	2.22	1.41
Update profile	0.74		2.71	1.69
Read others' profiles	0.75		4.16	1.64
Comment on others' profiles	0.83		3.45	1.70
Send private messages	0.64		3.04	1.68
Member of new group	0.70		2.07	1.48
Active in groups (add material, etc.)	0.55		1.89	1.41
Proportion of explained variance pct.	39.2	14.0		

Notes: Extraction method was PCA with varimax rotation. Kaiser Meyer Olkin Measure was .87 and Bartlett's test of sphericity was significant with $X^2 = 5682.09$ ($df = 45$) at $p < .01$ which suggests suitability of the factor analysis ($n = 2209$).

combination of variables which for the SNS model include 'updating profile', 'read others' profiles', 'comment on others' profile', 'send private messages', 'member of new group' and 'active in group's profile'. In order to balance inequalities of ethnic group size, an adjustment was made to subsamples by randomly selecting 100 respondents among Danish descendents and using this as representative of the Danish population when conducting the MANOVA (Shaw and Mitchell-Olds 1993, 1641).

Ethnicity and educational level have biggest effect on SNS communication

In the first model of relationships between the combined perspective of SNS communication and background variables, ethnicity ($F(12, 370) = 2.656$, $p < .01$, $\eta_p^2 = .08$), educational level ($F(24, 768) = 3.302$, $p < .01$, $\eta_p^2 = .09$), father's education ($F(24, 748) = 2.733$, $p < .01$, $\eta_p^2 = .08$) and mother's education ($F(24, 748) = 1.695$, $p < .02$, $\eta_p^2 = .05$) show multivariate statistical significance in accounting for differences in use. This means that ethnic group membership, educational level and parental education can be regarded as explanatory factors in accounting for variations across media practices concerning SNS communication. Gender is not significant (Table 4).

Overall, educational level, mother's and father's education and ethnicity show clear disparities in relation to SNS communication: young people in primary and high school and vocational training tend to be more active than students at the university level, and children of migrants and migrants tend to be

Table 4. Use of SNS, mean comparisons across gender, individual educational level, parental education and ethnic group membership in a combined perspective. Danes aged 13–23 years.

	Update profile	Read others' profiles	Comment on others' profiles	Send private messages	Member of new group	Active in groups
<i>Gender</i>						
Female	3.0	4.3	4.2	3.6	2.5	2.5
Male	3.2	4.1	3.8	3.3	2.8	2.5
<i>Educational level</i>						
Primary school (ps)	3.0 ^{ma,**}	4.4	4.0 ^{ma,*}	3.5 ^{ma,*}	3.0 ^{ma,*}	2.1
High school (hs)	3.1 ^{ma,ba,**}	4.7	4.3 ^{ma,*}	3.6 ^{ma,**}	2.7 ^{ma,*}	2.0
Vocational training (vt)	4.4 ^{ps,hs,ba,ma,*,**}	4.3	4.8 ^{ma,*}	3.8	3.3 ^{ma,*}	3.4 ^{ps,hs,**}
Bachelor level (ba)	2.7	3.7	4.4 ^{ma,*}	3.4	2.4	2.5
Masters level (ma)	2.2	3.9	2.4	2.7	1.6	2.5
<i>Mother's education</i>						
Primary school (ps)	2.8	4.4	3.7	2.9	2.4	2.3
High school (hs)	2.6	3.9	3.3	2.3	2.0	2.6
Vocational diploma (vd)	3.3	4.6 ^{hs,**}	4.4 ^{hs,**}	3.7 ^{hs,*}	3.1 ^{hs,**}	2.9
Bachelor degree (ba)	3.6 ^{hs,**}	4.3 ^{hs,**}	4.5 ^{hs,*}	4.3 ^{ps,hs,*}	3.1 ^{hs,*}	2.5
Masters degree (ma)	3.2	4.0	3.9	3.8 ^{hs,*}	2.4	2.3
<i>Father's education</i>						
Primary school (ps)	3.6 ^{hs,ma,**}	4.0	3.9	3.9 ^{ba,**}	2.6	2.5
High school (hs)	2.7	4.7	4.1	4.0 ^{ba,**}	3.4 ^{ps,ma,*,**}	2.3
Vocational diploma (vd)	3.0	4.2	3.8	3.5	2.6	2.0
Bachelor degree (ba)	3.4	4.1	4.2	2.6	2.6	2.8
Masters degree (ma)	2.8	4.2	4.0	3.0	1.8	2.8
<i>Ethnic group</i>						
Danish descendents (d)	2.8	4.0	3.4	2.9	2.4	2.0
Children of migrants (c)	3.4	4.3	4.1 ^{d,**}	3.6 ^{d,**}	2.8 ^{m,d,**}	3.0 ^{d,*}
Migrants (m)	3.0	4.4	4.5 ^{d,*}	3.8 ^{d,*}	2.7	2.5 ^{d,*}

Notes: $n = 371$. Abbreviations of response categories in independent variables, for instance 'ma' which stands for masters level, are used in superscripts to denote significant difference.

* $p < .01$.

** $p < .05$.

more active than those of Danish descendants. In particular, it should be noted that youth of Danish descent are less active than migrants and children of migrants in all of their SNS communication activities. In commenting on

others' profiles, private messaging and group membership and activity on social networks ethnic minority youth is substantially more active than ethnic majority youth. Moreover, the results suggest that parental education plays a role in that youth whose mothers have vocational diploma or bachelor degrees seem more active on SNS except for group membership. In terms of fathers' education, it seems that there is significant higher activity among youth whose fathers achieve no academic degree or vocational diploma.

Of particular relevance is the fact that ethnic minority groups are more active than youth of Danish descent in joining new groups and being active in groups. The last two activities are of particular relevance because they suggest that ethnic minority youth orient themselves, more than do majority youth, towards networks and discourses beyond immediate friendships. For them, SNS may offer means of encountering what may be termed symbolic 'othernesses', by which we mean differences of interests, physical locations, and discursive frames and sites.

Our study gives no grounds for drawing firm conclusions on the substance of these orientations. But others have demonstrated that being active in online groups are central to what the Swedish media researcher Peter Dahlgren terms 'learning for democratic participation' (Dahlgren 2010; see also Loader 2007), that is a training in civic interaction which is the key to new forms of digital citizenship and democratic mobilization. Such results run counter to popular, domestic discourses that focus on ethnic minority males as radicalized extremists with no interest in dialogue or interaction (Hussain 2000). It may equally be posited that these encounters with symbolic othernesses are important for nurturing two of OECD's three core competencies, namely interaction in heterogeneous groups and autonomous action. This is because the choice to join new online groups and actively solicit material to groups allow and enforce reflection on contents and contexts of interaction, and this practice facilitates a negotiation of perspectives.

Ethnicity, educational level and gender have biggest effect on content creation

In terms of variation for content creation variables, the overall results are multivariate statistically significant for ethnic group membership ($F(8, 424) = 2.62$, $p < .01$, $\eta_p^2 = .05$), educational level ($F(16, 856) = 3.021$, $p < .01$, $\eta_p^2 = .05$) and gender ($F(4, 211) = 2.673$, $p < .05$, $\eta_p^2 = .05$) (Table 5).

Evidently, results suggest that educational level, ethnicity and gender have an effect on media use for content creation as conceptualized by the activities of recording, editing and using computer design software. Furthermore, the findings show a statistically significant impact of mother's education on all content creation activities. Also, children of migrants more frequently create digital content across all four items than do young people of Danish descent. In comparison with youth of Danish descent, migrants are statistically significantly

Table 5. Content creation, mean comparisons across gender, educational level, parental education and ethnic group membership in a combined perspective. Danes aged 13–23 years.

	Takes pictures (photo and video)	Uses computer design software	Uses images from the web	Download/ edit digital content
<i>Gender</i>				
Female	2.5**	1.8	2.7	3.0
Male	2.0	2.0	2.5	2.7
<i>Educational level</i>				
Primary school (ps)	3.0 ^{hs,vt,ma,*}	1.9	2.9 ^{ma,**}	2.9 ^{ma,**}
High school (hs)	2.3	2.2 ^{ma,**}	3.3 ^{ba,ma,*,**}	3.1 ^{ma,*}
Vocational training (vt)	1.5	2.0	2.6	3.0
Bachelor level (ba)	2.8 ^{vt,ma,**}	1.9	2.2	3.0
Masters level (ma)	1.8	1.3	2.2	2.1
<i>Mother's education</i>				
Primary school (ps)	2.3	1.6	2.1	2.5
High school (hs)	1.9	1.5	2.3	2.4
Vocational degree (vd)	2.1	1.9	3.0 ^{ps,**}	2.8
Bachelor degree (ba)	2.4	2.2 ^{hs,**}	2.9	2.9
Masters degree (ma)	2.6 ^{hs,**}	2.1	2.8	3.3 ^{ps,hs,**}
<i>Father's education</i>				
Primary school (ps)	2.3	1.7	2.4	2.9
High school (hs)	2.3	2.0	2.4	2.9
Vocational degree (vd)	2.5	1.9	2.8	2.7
Bachelor degree (ba)	2.3	2.0	2.9	3.0
Masters degree (ma)	2.0	1.7	2.7	2.5
<i>Ethnic group</i>				
Danish descendents (d)	1.8	1.4	1.9	2.2
Children of migrants (c)	2.5 ^{d,*}	2.0 ^{d,*}	2.9 ^{d,*}	3.1 ^{d,*}
Migrants (m)	2.5 ^{d,*}	2.1 ^{d,*}	3.1 ^{d,*}	3.1 ^{d,*}

Notes: $n = 371$. Abbreviations of response categories in independent variables, for instance 'hs' which stands for high school, are used in superscripts to denote significant difference.

* $p < .01$.

** $p < .05$.

higher in mean use on all the measured activities; and females are significantly more frequent users in recording digital content than are males. While the study cannot account for reasons behind these differences, our results indicate that educational level and ethnicity have equal effect on young peoples' media use, and that mothers' education, unlike fathers', impact their children's active engagements through media networks.

MIL discourses and practices

Results of the Danish survey clearly indicate that ethnic minority youth are more active than youth of Danish descent in practicing key aspects of MIL. This goes for reading of books, for online group engagement and for digital content creation and distribution. For particular media and practices, our findings endorse results found by other studies including white American college students having the lowest rate of online content creation (Hargittai and Walejko 2008), and Dutch–Moroccan youth demonstrating markedly higher participation rates in terms of online discussion fora than is the case for majority Dutch youth (Leurs and Ponzanesi 2011). Bonfadelli, Bucher, and Piga (2007), whose research design comes closest to the study reported on here, find that education is the strongest predictor in terms of online uses (Bonfadelli, Bucher, and Piga 2007, 162). What marks the Danish study is a statistically robust sample and an inclusive cross-media design that allows illumination across media and modes of use. Still, as indicated by the analysis above, results must be interpreted and understood within the discursive and policy contexts of those practices

In terms of MIL, our results do not affirm celebratory claims to a radical shift from passive receivers to active media ‘producers’ (Bruns 2008) and digital natives (Prensky 2001) who are all engaged in participatory cultures (Jenkins 2006). Still, the results do point to necessary reconfigurations of what it takes to ‘do’ audiencing – hence the use in this article of media ‘practices’ rather than ‘audience reception’ or ‘uses’ to indicate the blending of mediated modes of reception, production and communication. Our study equally points to the need for an inclusive definition of MIL based on an understanding that user-led media practices are resources, training grounds, for the development of MIL. For like proficiency with text and numbers, the possession of MIL requires a good deal of sustained training; and sustained training by and large implies schooling. Far from eliminating formal competence formation through schooling, an inclusive definition of MIL indicates that educational authorities must widen and recast current literacy priorities in order to minimize differentials among students. They must focus on diverse media practices and modes of reflection rather than on access to digital technologies. For example, in Denmark, intensive investments have been made over the last two decades in educational computer hardware, internet access and in the training of teachers in information and computer literacy; but relatively little headway has been made in terms of integrating MIL beyond access to the technology. Media, apart from print, is defined as a ‘neutral’ tool whereby students may gain access to information and optimize individual learning styles rather than as constitutive modes of knowledge transformation. In domestic terms, the results of this approach to literacy and to media are that the higher the educational level, the less we see a deviation from traditional literacy and numeracy literacies in Danish schools (Drotner and Duus 2008; Drotner 2013).

Continuing such educational approaches to MIL may risk widening, rather than limiting existing differentials, if not always in anticipated ways. For, at least in terms of ethnicity, our results illuminate a fundamental disparity between youthful media practices as exercised in everyday, out-of-school contexts and in formal contexts of schooling, as evidenced by the PISA tests. This disparity is rarely addressed in policy circles for the simple reason that here focus is very much on formal schooling, as the introductory sketch of the 2012 PISA results illuminates. Still, the present study indicates that benefits can be reaped by building on the media practices exercised beyond the school gates, and by widening received definitions of literacy. An obvious starting point might be for the education system to acknowledge the disparity; to harness everyday MIL resources as developed by ethnic minority youth; and to address why this group, not least boys and young men, currently ends up at the bottom of standard literacy tests.

Inclusive research: options and obstacles

The Danish study also has important implications in terms of research. In theoretical terms, the study points to the need for inclusive research approaches that cross boundaries of media, ICT and education studies. Since training of MIL obey no neat institutional boundaries, and since these practices can no longer be defined in simple terms as means of either citizenship, consumerism or employment, so scholars must adapt to this complexity. Moreover, researchers need to treat normative binaries of celebration or caution in terms of ethnicity with due reflexivity. Perhaps the best way to check easy assumptions is to adopt inclusive research approaches. For in empirical terms, our results point to the urgent need to adopt a dual perspective on both media and users (Drotner 2000) when studying MIL. This includes attention to not only particular media or genres, but to the entire media ensemble.

Since media practices are inscribed into wider discourses on knowledge formation, MIL take centre stage and must be studied across different contexts of learning and across learners' life trajectories. While this has been an ambition of, for example, lifelong learning approaches, the digital environment serves to complicate ways in which networked practices of digital learning actually take shape across time and space. Hence, the digital environment also challenges methodological approaches to study networked learning practices that are traditionally based on stable definitions of space and location. We may still approach media practices and networked learning from people's point of view, but we face a choice of defining users as online textual materializations or as offline social entities – or as a co-construction of both positions. Such co-constructions call for 'connective ethnography' (Hine 2000; Leander and McKim 2003) or 'processual methodologies' (Drotner 2012) in tracing shifting, yet situated, meaning-making practices from a holistic perspective that encompasses both modes of representation and use.

Last, but not least, researchers must be on the alert in terms of the necessary policy implications of any research result in this domain. Questions must be asked about, for example, the power of legitimating some, and not other, semiotic practices as literacies; some, and not other, settings as proper training grounds; and some, and not other, facilitators of learning as proper teachers. The diverse and intense media practices of minority youth offer important illustrations of the challenges facing future-directed MIL. At the same time, the analytical inscriptions of these practices illuminate the importance of dismantling easy oppositions between public discourses and everyday practices, and hence open new spaces for action.

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References

- Adoni, Hanna, Akiba Cohen, and Dan Caspi. 2006. *Media, Minorities and Hybrid Identities: The Arab and Russian Communities in Israel*. New York: Hampton Press.
- Arafeh, Sousan and Doug Levin. 2002. “The Digital Disconnect: The Widening Gap between Internet-Savvy Students and their Schools.” The Pew Internet and

- American Life Project. <http://www.pewinternet.org/Reports/2002/The-Digital-Disconnect-The-widening-gap-between-Internetsavvy-students-and-their-schools.aspx>
- Bonfadelli, Heinz, Priska Bucher, and Andrea Piga. 2007. "Use of Old and New Media by Ethnic Minority Youth in Europe with a Special Emphasis on Switzerland." *Communications* 32 (2): 141–170.
- Bruns, Axel. 2008. *Blogs, Wikipedia, Second Life, and Beyond: From Production to Producers*. New York: Peter Lang.
- Buckingham, David. 2000. *After the Death of Childhood: Growing up in the Age of Electronic Media*. Cambridge: Polity Press.
- Cottle, Simon. 1997. *Television and Ethnic Minorities: Producers' Perspectives. A Study of BBC in-House, Independent and Cable TV Producers*. Aldershot: Avebury.
- Dahlgren, Peter. 2010. *Young Citizens and New Media: Learning for Democratic Participation*. London: Routledge.
- d'Haenens, Leen, Cindy van Summeren, Madelon Kokhuis, and Johannes W. J. Beentjes. 2002. "Ownership and Use of 'Old' and 'New' Media among Ethnic Minority Youth in the Netherlands: The Role of the Ethno-Cultural Position." *Communications* 27 (3): 365–393.
- Dhoest, Alexander, Kaarina Nikunen, and Marta Cola. 2013. "Exploring Media use among Migrant Families in Europe: Theoretical Foundations and Reflections." *Observatorio (OBS*) Journal* 7 (1): 13–31.
- Drotner, Kirsten. 2000. "Difference and Diversity: Trends in Young Danes' Media Cultures." *Media, Culture and Society* 22 (2): 149–166.
- Drotner, Kirsten. 2007. "Leisure is Hard Work: Digital Practices and Future Competences." In *Youth, Identity and Digital Media*, edited by David Buckingham, 167–184. Cambridge, MA: MIT Press.
- Drotner, Kirsten. 2008. "Informal Learning and Digital Media: Perceptions, Practices and Perspectives." In *Informal Learning and Digital Media*, edited by Kirsten Drotner, Hans S. Jensen, and Kim C. Schrøder, 10–28. Cambridge: Cambridge Scholars Publishing.
- Drotner, Kirsten. 2012. "Processual Methodologies and Digital forms of Learning." In *Identity, Community, and Learning Lives in the Digital Age*, edited by Ola Erstad and Julian Sefton-Green, 39–56. Cambridge: Cambridge University Press.
- Drotner, Kirsten. 2013. "National Report Denmark." In *ANR TRANSLIT and COST "Transforming Audiences/Transforming Societies" Media and Information Education Policies in Europe*, edited by Divina Meigs. Paris: Sorbonne. http://ppemi.ens-cachan.fr/data/media/colloque140528/rapports/DENMARK_2014.pdf
- Drotner, K., and V. Duus. 2008. *Digitale læringsressourcer i folkeskolen og de gymnasiale ungdomsuddannelser* [Digital Learning Resources in Primary, Lower- and Upper-Secondary Education]. Odense: DREAM and Læremiddel.dk. <http://www.dream.dk/sites/default/files/communication/Rapport-laeringsressourcer.pdf>
- Drotner, Kirsten, and Ola Erstad. 2014. "Sharepoints on Media Literacies: Interlacing Media Studies and Education Studies." *International Journal of Learning and Media* 4 (2): 19–31.
- Egelund, Niels, Chantal P. Nielsen, and Beatrice S. Rangvid. 2011. *PISA etnisk 2009: etniske og danske unges resultater i PISA 2009* [PISA Ethnic: PISA Scores for Ethnic and Danish Youth]. Copenhagen: AKF. http://www.edu.au.dk/fileadmin/www.dpu.dk/viden/Pisa_etnisk_2009.pdf
- Elias, Nelly, and Dafna Lemish. 2008. "Media uses in Immigrant Families: Torn between 'Inward' and 'Outward' Paths of Integration." *International Communication Gazette* 70 (1): 21–40.

- Erstad, Ola. 2010. "Content in Motion: Remixing and Learning with Digital Media." In *Digital Content Creation: Perceptions, Practices and Perspectives*, edited by Kirsten Drotner and Kim C. Schröder, 57–74. New York: Peter Lang.
- European Commission. 2013. "EU School Report: Some Improvement in Science and Reading, but Poor in Maths." December 3. file:///Users/drotner/Desktop/pisa-press-release.webarchive
- Everett, Anna, ed. 2008. *Learning Race and Ethnicity: Youth and Digital Media*. The John D. and Catherine T. MacArthur Foundation series on digital media and learning. Cambridge, MA: MIT Press.
- Fuglesang, Minou. 1994. *Veils and Videos: Female Youth Culture on the Kenyan Coast*. Philadelphia, PA: Coronet Books.
- Georgiou, Myria. 2006. *Diaspora, Identity and the Media: Diasporic Transnationalism and Mediated Spatialities*. Cresskill, NJ: Hampton Press.
- Gillespie, Marie. 1995. *Television, Ethnicity and Cultural Change*. London: Routledge.
- Graham, Philip W., and Abby Goodrum. 2007. "New Media Literacies: At the Intersection of Technical, Cultural, and Discursive Knowledges." In *The Oxford Handbook of Information and Communication Technologies*, edited by Robyn Mansell and Crisanthi Avgerou, 473–493. Oxford: Oxford University Press.
- Hansen, Stine R. 2012. "Når børn læser bøger: en undersøgelse af børns læsevaner" [When Children Read Books: A Study of Children's Reading Habits]. In *Børnelitteratur i skolebiblioteket* [Children's Literature in the School Library], edited by Anna K. Skyggebjerg, 6–19. Copenhagen: Dansk lærerforeningens forlag.
- Hargittai, Eszter. 2007. "Whose Space? Differences among Users and Non-Users of Social Network Sites." *Journal of Computer-Mediated Communication* 13 (1): 276–297.
- Hargittai, Eszter, and Gina Walejko. 2008. "The Participation Divide: Content Creation and Sharing in the Digital Age." *Information, Communication & Society* 11 (2): 239–256.
- Hine, Christine. 2000. *Virtual Ethnography*. London: Sage.
- Hobbs, Renée. 2008. "Debates and Challenges Facing New Literacies in the 21st Century." In *International Handbook of Children, Media and Culture*, edited by Kirsten Drotner and Sonia Livingstone, 431–447. Thousand Oaks, CA: Sage.
- Hull, Glynda A., and Nora L. Kenney. 2008. "Hopeful Children, Hybrid Spaces: Learning with Media after School." In *Informal Learning and Digital Media*, edited by Kirsten Drotner, Hans S. Jensen, and Kim C. Schröder, 70–101. Cambridge: Cambridge Scholars Publishing.
- Hussain, Mustafa. 2000. "Islam, Media and Minorities in Denmark." *Current Sociology* 48 (4): 95–116.
- Ito, Mizuko, Sonja Baumer, Matteo Bittanti, danah boyd, Rachel Cody, Becky Herr-Stephenson, Heather A. Horst, et al. 2010. *Hanging out, Messing around, and Geeking Out*. Cambridge, MA: MIT Press.
- Jenkins, Henry. 2006. *Convergence Culture: Where Old and New Media Collide*. New York: New York University Press.
- Kobbernagel, Christian, Kim C. Schröder, and Kirsten Drotner. 2011. *Unge medie- og museumsbrug: sammenhænge og perspektiver* [Young People's Media and Museum Uses: Patterns and Perspectives]. Odense: DREAM. http://www.dream.dk/files/pdf/DREAMrapport_juli2011.pdf
- Leander, Kevin M., and Kelly K. McKim. 2003. "Tracing the Everyday 'Sittings' of Adolescents on the Internet: A Strategic Adaptation of Ethnography across Online and Offline Spaces." *Education, Communication & Information* 3 (2): 211–240.

- Leander, Kevin M., Nathan C. Phillips, and Katherine H. Taylor. 2010. "The Changing Social Spaces of Learning: Mapping New Mobilities." *Review of Research in Education* 34 (1): 329–394.
- Leurs, Koen, and Sandra Ponzanasi. 2011. "Mind the Gaps: Space Invaders! Migrant Youth Online and the 'Internetworked' Experiences of Transition." Paper at the MIT 7.0 Media in Transition conference, May 12–15. <http://www.web.mit.edu/comm-forum/mit7/papers/Leurs%20%20Ponzanasi%20-%20Mind%20the%20gaps%20%20Space%20invaders!.pdf>
- Livingstone, Sonia, and Leslie Haddon. 2009. *Young People in the European Digital Media Landscape*. Gothenburg: The International Clearinghouse on Children, Youth and Media.
- Livingstone, Sonia, Leslie Haddon, Anke Görzig, and Kjartan Ólafsson. 2011. *EU Kids Online: Final Report 2011*. London: EU Kids Online Network. <http://eprints.lse.ac.uk/45490/1/EU%20Kids%20Online%20final%20report%202011%28lsero%29.pdf>
- Loader, Brian D., ed. 2007. *Young Citizens in the Digital Age: Political Engagement, Young People and New Media*. London: Routledge.
- Meyers, Lawrence S., Glenn Gamst, and A. J. Guarino. 2006. *Applied Multivariate Research: Design and Interpretation*. Thousand Oaks, CA: Sage.
- Park, Sora. 2012. "Dimensions of Digital Media Literacy and the Relationship with Social Exclusion." *Media International Australia*, no. 142: 87–100.
- Peeters, Allerd L., and L. d'Haenens. 2005. "Bridging or Bonding? Relationships between Integration and Media Use among Ethnic Minorities in the Netherlands." *Communications* 30 (2): 201–231.
- Prensky, Marc. 2001. "Digital Natives, Digital Immigrants." *On the Horizon* 9 (5): 1–6.
- Rychen, Dominique S., and Laura H. Salganik, eds. 2003. *Key Competencies for a Successful Life and a Well-Functioning Society*. Göttingen: Hogrefe and Huber Publishers.
- Säljö, Roger. 2000. *Lärande i praktiken: ett sociokulturellt perspektiv* [Learning in Practice: A Socio-Cultural Perspective]. Stockholm: Prisma.
- Shaw, Ruth G., and Thomas Mitchell-Olds. 1993. "Anova for Unbalanced Data: An Overview." *Ecology* 74 (6): 1638–1645.
- Sreberny, Annabelle. 1999. *Include Me In: Rethinking Ethnicity on Television. Audience and Producer Perspectives*. London: Broadcasting Standards Commission. <http://www.ofcom.org.uk/static/archive/bsc/pdfs/research/Include.pdf>
- Truszczyński, Jan. 2013. "Speech: Launch of 2012 OECD PISA Results." December 3. http://ec.europa.eu/commission_2010-2014/vassiliou/headlines/press-releases/docs/20131204-oecd-pisa-2012-results.pdf
- UNESCO. 2012. "Media and Information Literacy." <http://milunesco.unaoc.org/>
- Wertsch, James V. 1998. *Mind as Action*. New York: Oxford University Press.
- Wildermuth, Norbert. 2010. "Empowerment: The Real Challenge of Digital Inclusion." In *Digital Content Creation: Perceptions, Practices and Perspectives*, edited by Kirsten Drotner and Kim C. Schröder, 267–285. New York: Peter Lang.
- Wilmsen, Edwin N., and Patrick McAllister, eds. 1996. *The Politics of Difference: Ethnic Premises in a World of Power*. Chicago, IL: University of Chicago Press.
- Zickuhr, Kathryn. 2010. *Generations 2010*. Washington, DC: Pew Research Centre. http://www.pewinternet.org/~media/Files/Reports/2010/PIP_Generations_and_Tech10.pdf