

Literacy in a Culture of Delimitation and Provisionality

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Abstract

The concept of literacy has traditionally referred to the reading and writing of printed texts but it has later been widened to include powerful new media. Literacy refers to the competency of citizens to deal with public media. This definition depends on a complex interrelationship of actors as readers and writers in a public sphere characterized by mass communication and recognized media. A prerequisite of this definition is a more or less contingent perspective on the terms *reader*, *writer*, and *mass communication*, which leads to an educationally motivated practice of literacy as critique, creativity, participation, self-control of media consumption, and so on. But the emergence of the Internet and its social media, as well as the ubiquity of mobile devices require a rethinking of the definitional elements and their interrelationship. In view of these new conditions we define media—in particular, mobile devices—as cultural resources within flexible contexts. Our focus is on the mobile complex that generates a new dynamic of mass communication. The resultant educational practices we understand as being oriented toward new forms of appropriation and meaning-making in flexible contexts and of utilizing the cultural resources and multimedia practices of everyday life as relevant for the subjectivity and identity of learners and their modes of self-representation.

A “World in Flux” and the Impact on the Concept of Literacy

Normally, literacy is viewed as a capacity or competency of an individual in relation to media use. However, below the surface of such a competency-oriented definition lies a complex system of factors that suggests a definition of *literacy* as a relational category.

Literacy as Relational Category

We begin with what the complex system was like under the condition of television as the leading medium. At the beginning of the 1960s, the meaning of literacy depended on prefabricated television programs watched at home on the television screen by a passive viewer in his or her social situation. Education focused mainly on the passive situation of the viewer and the hidden ideology of programs. The “uses and gratifications” theory, the user-oriented theory of mass communication, was formulated at this time (Blumler and Katz 1974).

The “uses and gratifications” theory reflected a desire to understand audience involvement in mass communication in terms of the individual user’s own experience and perspective. The theory sought to replace the image of the audience member as a passive recipient, a notion often thought to be implicit in the framing of impact studies, with an image of a person who could actively utilize programs, articles, films, and songs for his or her own purposes. The theory rested on the assumption that interesting and important differences of orientation toward mass media are evident across different audience members, and variations in such orientations were thought to change together with numerous other relevant factors such as (1) people’s social circumstances and roles, (2) their personality dispositions and capacities, and, ultimately, (3) the process of effects itself (see Blumler 1979).

In relation to this idea of a user who could actively utilize programs, articles, films, and songs for his or her own purposes, education set out to support children and young people to develop adequate skills, attitudes, and competencies in relation to a dominant medium such as television. Education adopted further models of mass communication that focused on media use as a mode of culture- and meaning-making. Hall, viewing mass communication as culture, explained the interrelationship of the user and media through an “encoding/decoding” model as “circu-

lation of signs and meaning” in the “decoding and encoding discourses” of television (Hall 1980, 1997). In this mediated context Hall identified viewers as readers with typical modes of reading.

In line with these ideas, the European Charter for Media Literacy lists seven key competencies for media literacy:

Media literate people should be able to:

- use media technologies effectively to access, store, retrieve and share content to meet their individual and community needs and interests;
- gain access to, and make informed choices about, a wide range of media forms and content from different cultural and institutional sources;
- understand how and why media content is produced;
- analyse critically the techniques, languages and conventions used by the media, and the messages they convey;
- use media creatively to express and communicate ideas, information and opinions;
- identify, and avoid or challenge, media content and services that may be unsolicited, offensive or harmful;
- make effective use of media in the exercise of their democratic rights and civic responsibilities. (<http://www.euromedialiteracy.eu/charter.php?id=3>; see also Bachmair and Bazalgette 2007)

However, over the relatively short period of time of a single generation, mass communication has changed such that the term *mass communication* itself requires reframing. The new situation is qualitatively different to the decoding/encoding model described by Hall. In the following we explore the qualitatively new situation of mobile, individualized, convergent mass communication by considering what we have termed the “mobile complex.”

A generation ago, in the heyday of television, literacy focused on viewers’ competencies. Then, practical media education addressed viewers as citizens needing support in their passive, consumptive processing of the television programs they watched. The framing of viewers as citizens necessitated an appropriately critical and creative stance in respect of

media by means of formal media education. Literacy was defined as the competency to respond as a citizen to media in a specific mass media context characterized by the circulation of signs and meaning and an institutionalized media production (“encoding”) and individualized, personal “decoding.” Media users acted in their social and life contexts, to which education belongs.

This culturally and historically defined interrelationship of media and user in a contingent social context now needs to be viewed as historical. Education can no longer respond with a simple set of media education tasks. For example, what does the notion of “citizen” mean in relation to refugees from Africa, the Middle East, or Afghanistan in a European culture and an unfamiliar culture of teaching and learning but within a familiar Internet context? Furthermore, the circulation of signs and meaning is no longer divided into professional media production and consumptive media reception. Encoding and decoding are becoming blurred. The mobile Internet is open to user-generated content and, what is theoretically even more challenging and interesting, to user-generated contexts.

Context Awareness: Literacy and User-Generated Context

How are we to conceptualize the notion of literacy, building on its antecedents but taking full account of user-generated contexts made possible by convergent mobile devices? Under the current condition of mobile, individualized, convergent technological mediation, the concept of awareness becomes important: to become aware of my contexts and of the contexts of my social surroundings.

With reference to Dourish’s (2004) arguments about computer-mediated contexts, we view contexts as a frame under construction for optional combinations of actions, representational resources inclusive of media and attendant literacy, virtual and local sites, or social sites such as sociocultural milieus. With the trend toward individualization and mobility, users generate contexts from fluid frames (see Bachmair and Pachler 2014).

The affordances of convergence make mobile devices and services integral to the construction processes of these fluid frames. With particular reference to user activities, we understand user-generated contexts also as processes by which users of mobile digital devices are afforded the synergies of knowledge

distributed across people, communities, location, time and life-course, social contexts, sites of practice, networks and systems, and so on. Learners in user-generated contexts engage in the constant negotiation of a mutual understanding of their learning situations with others affiliated in increasingly loose configurations.

Of particular significance for us is the way in which mobile digital devices enable external representations of knowledge beyond the “here and now” to be drawn on and constructed to augment individual learners’ internal conceptualizations of knowledge and the social uses that are made of knowledge in specific sites—not only sites of formal learning but everyday life or sites of entertainment and self-representation. Of great significance for us is also the dynamic nature of these processes as well as their rootedness in social interaction as well as, often, cognitive reflection leading to meaning being emergent rather than predetermined.

An example is a scoping workshop as a preparatory activity for an introductory vocational training course for young people about to reenter formal education. The workshop was facilitated by one of the authors of this paper. The training course itself aimed to prepare young people to acquire media skills for getting work in the area of media design. During the scoping workshop participants were asked to investigate their learning environment by taking pictures with their personal mobile phones. The main educational idea was to appropriate the new site for learning with the help of a personal device linked to communication in everyday life contexts and normally excluded from formal learning in formal education. Second, participants were invited to select one of their photographs to be printed onto a T-shirt to represent themselves (thus becoming a visible sign within the new learning context). The learning context was also intended to become permeable to the lifeworlds of the participants. Therefore, participants were also given the option of bringing in photographs from outside and of selecting one of these for printing on their T-shirt. In this way, the participants’ wider frame under construction, their optional combinations of actions, representational resources inclusive of media and literacy, and virtual and local sites or social sites would be introduced into the workshop.

What did participants choose to print on the T-shirts? Which user-generated contexts were part of the participants’ self-representation? The T-shirts

suggested several contexts with different media competencies. Some of the participants printed images of the new formal learning environment in the tradition of artistic still lifes; for example, a calm garden environment with a bench and a tree. These images suggest a communicative intent around becoming familiar with the new formal learning environment through the creative use of a mobile device. Other participants used images taken from other media; for example, two characters from a manga cartoon. The participant who chose the manga characters presented herself as a connoisseur of a particular genre of comics. Another group referred to the context of the Internet and social media; for example, one young man depicted himself as a gifted dancer. Another group of T-shirts referred to the home, family, and peers. One of these T-shirts featured photographs with friends having a good time in the style of a private photo album. One young man featured his national colors on his T-shirt; perhaps his message was about political awareness as a migrant.

The T-shirts represented the visible coming together of diverse contexts due to individualization. Among them were T-shirts with familiar forms of individualization; for example, by lifestyle or intended profession. But some were typical of new modes and media, especially in combination with the Internet. How family backgrounds have changed as a result of migration remained hidden. In general, mobile devices enhance individualization; they focus on individualization of time and space through ubiquity. Individually commanded ubiquity blurs the familiar boundaries of learning in formal contexts by opening it to a wide range of learning in informal contexts.

Cultural De-delimitation—Concept and Phenomena

What trends are these changes to technological mediation, to which literacy belongs, part of? In 2009 the Beyond Current Horizons program (Facer 2009) reported on the potential futures for education that might result from current and projected social and technological changes. The research program was tasked to develop a range of scenarios for the future of education—in 2025 and beyond—based on evidence from a wide range of experts in the field. The final report posits several long-term trends:

- the information landscape will become “denser, deeper, and more diverse”;
- individuals will increasingly “‘wrap’ their information landscape around themselves” in the form of a “personal ‘cloud’” rather than managing it through institutions;
- “‘machines’” will take on “more and more roles previously occupied by humans,” and nonhuman bodies will become “more radically embedded into human bodies”;
- the importance of distance will decrease in terms of individuals’ engagement with “information resources,” although geography will remain important in a number of respects;
- learning about new and evolving technological environments will be a life-long endeavor;
- “the disaggregation of information from institution[s]” (broadly conceived) will continue to increase, and institutional boundaries will continue to weaken;
- demographic and technological developments will lead to increased polarization of the world of work;
- easy solutions “are not expected for complex educational problems.” (Facer 2009; quotations are from pp. 3–5)

Cultural sociology uses the term *delimitation* to describe these and similar developments (Beck, Bonss, and Lau 2003; Beck and Lau 2004). The actual process of societal and cultural transformation not only updates institutions and processes; it changes structures, agency, and practices together with their interrelationship, which is itself becoming increasingly unpredictable (Beck, Giddens, and Lash 1994) and provisional (Kress 2010). The assumption is that this happens by delimitation; that is, by way of a process of boundary blurring. One of the phenomena visible to schools is migration. Schools in inner-city areas especially may have high percentages of students who are migrants—some naturalized, some not, some with permission to stay only a short time, some with citizenship but with parents who do not have permission to work, some accepted as asylum seekers, some without official status, and so on. Another form of delimitation is the NEET categorization—“not in education, employment, or training.” In some Mediterranean regions of Europe, in excess of 40 percent of young people fall into this category.

Beck, Giddens, and Lash, proponents of the theory of “reflexive modernity,” discuss the issue of delimitation under the name of “detraditionalization,”

which appears as migration but also in the form of technically ubiquitous mobility:

To speak of detraditionalization in the present day at first seems odd, particularly given the emphasis of some forms of postmodern thinking upon the revival of tradition. To speak of detraditionalization, however, is not to talk of a society without traditions—far from it. Rather, the concept refers to a social order in which tradition changes its status. In a context of global cosmopolitanism, traditions are today called upon to defend themselves: they are routinely subject to interrogation. Particularly important in this respect, the ‘hidden substratum’ of modernity, involving traditions affecting gender, the family, local communities and other aspects of day-to-day social life, becomes exposed to view and subject to public debate. The implications are both profound and worldwide in scope. (Beck, Giddens, and Lash 1994, p. vi)

In the context of detraditionalization, literacy as a competency-based relationship with public media is becoming problematic, not least because of the manifold Internet-convergent mobile devices that are changing mass communication. The emergence of new institutions such as Google contributed to the dynamic of delimitation. Detraditionalization in the form of delimitation results from multimodality and provisionality of meaning-making in new mass communication. Social semiotics has explored multimodality: “Modes are semiotic resources which allow the simultaneous realisation of discourses and types of (inter)action. Designs then use these resources, combining semiotic modes, and selecting from the options which they make available according to the interests of a particular communication situation” (Kress and van Leeuwen 2001, p. 21).

The new “arrangements” to which mobiles and the Internet or apps belong make meaning “material” (Kress 2010). These arrangements are multimodally constructed as photograph, sound, printed characters, *mise-en-scène*, and so on. Mobile devices fit with this multimodality by virtue of the variety of applications they support: from the typed characters of a text message to videos amalgamated with characters. Kress and van Leeuwen (2001) discussed multimodality with reference to a child’s bedroom as a “multimodal text.” For today’s children, the mobile device–Internet mix

is the prevalent text. Mobile devices do not just fit with multimodality; they promote multimodality in a highly individualized way.

In this line of argumentation, education can focus on the affordance of specific modes of representation (Kress 2008), such as written text with characters in a printed book or several modes of representation created with mobile apps and residing in the mobile device and close to the Internet. In addition, education can question the affordances of specific modes of representation linked to specific competencies. This leads to the question whether “digital literacy,” “multimedia literacy,” “visual literacy,” “mobile literacy,” “media literacy,” or—in an attempt to avoid an undue inflation of terms—a general notion of “multimodal literacy” exists. The proliferation of different terms to describe emerging phenomena—for example, *visual literacy* within the broader notion of *multimodal literacy*—can be interpreted as evidence of a growing recognition of processes of delimitation. However, each of these terms restricts literacy to a specific cultural-historical episode characterized by a particular relationship of media and their users. The process of delimitation through mobile, individualized, convergent mass communication blurs any distinct relationship between competencies and types of modality. Our interim conclusion is that the concept of literacy retains a certain degree of legitimacy because it is widely used and linked to a wide range of pedagogical practices; however, to retain currency in the medium to long term, a redefinition of the term is necessary and must take full account of the underpinning paradigm shift away from contingency to relationality. The ubiquity of mobile devices goes beyond individualization and offers a specific orientation. Kress (2010) describes this orientation as “multimodal orchestrations . . . of meaning”: “The world arranged by me: the world arranged for me.” These mobile, individualized arrangements of meaning enhance the “social and semiotic blurring: the dissolution, abolition, disappearance of frames and boundaries” (Kress 2010, p. 24).

The impact of this development is fluidity, provisionality, and instability (Kress 2010), which suggests that to speak about a defined competency in dealing with texts is not appropriate. Our first educational response in this provisional situation and from the tradition of literacy is to support context awareness: becoming aware of the frames under my construction, constructed under the conditions of ubiquitous



- agency (the user's capacity to act on the world): appropriation, meaning-making, habitus of learning (self-representation, play, target orientation), naive native expertise
- cultural practices (the routines users engage in): normalization, self-expression, communication, traditional and flexible modes, learning in informal contexts
- structures (that govern users' being in the world): convergence, fragmentation, provisionality, discontinuity, user-generated content and contexts, de-traditionalization of learning, milieus

Fig. 1 Triangular structuration model of the mobile complex (Pachler, Bachmair, and Cook 2010, p. 25).

mobility at the interface of formal and informal contexts. This awareness raising is what the creation of T-shirts was intended to promote in the scoping workshop.

From the Circulation of Signs and Meaning to the "Mobile Complex"

Hall modeled mass communication with reference to the then-leading medium, television. Our argumentation about delimitation of mass communication through provisionality suggests the need for a revision of existing models, or the development of a new model, for mass communication. Consequently, we suggest the replacement of the flow model of mass communication developed by Hall—that is, the encoding/decoding model—with a semiotic model of media production and media use as meaning-making (see fig. 1).

From the Encoding/Decoding Model to a Triangular Structuration Model

At the time of the emergence of the Internet, Hall developed his circulation model into a general model of meaning-making: "The underlying argument behind the semiotic approach is that, since all cultural objects convey meaning, and all cultural objects depend on meaning, they must make use of signs; and in so far as they do, they must work like language works" (Hall 1997, p. 36).

We have to take into account that meaning-making is not only a complex but also a human ac-

tivity situated in specific practices. In the process of delimitation, a main feature is provisionality, mainly in relation to user-generated contexts. Our triangular structuration model explores the relevant sociocultural structures, agency, and cultural practices of technologically and publically mediated communication (Pachler, Bachmair, and Cook 2010). At this point in our argumentation we follow Giddens's (1991) structuration model and consider individualized, mobile, and convergent mass communication in the form of three interdependent spheres. We propose an analytical model of argumentation that guides interpretation under the aegis of cultural delimitation and provisionality. In the triangular structuration model, Hall's encoding and decoding are part of a discussion of structures that is widened by looking for the user's capacity to deal with new forms, and so on.

The Mobile Complex

In our work, in particular in the context of the London Mobile Learning Group (LMLG; <http://www.londonmobilelearning.net>), the ongoing transformations in the economy, culture, society, media, education, and technology also play a central role. Of particular interest to us are the implications of these changes for education in general and literacy in particular.

One important feature of the ongoing transformation is the structural changes—in particular, the transfer of responsibility for risk-taking and meaning-making increasingly from the state and its institutions

to the individual, who is framed as a consumer of services provided by a global market. (For a detailed discussion, see Pachler, Bachmair, and Cook 2010; and Kress and Pachler 2007.)

Another dimension of structures, quite apart from the technological infrastructure available, is dispositional and social milieu-related differences in learners. Drawing on Giddens (1991) and Schulze (1992), Bachmair (2007) observes that personal lifeworlds are characterized by the individualization of collective risks and a self-referential frame of personalized experiences of reality. Using empirical data from Germany, he shows the importance of the segmentation of society into milieus that act as sociocultural frames for the identification of media patterns.

Yet another aspect is the impact of structural changes on power, authority, and conventions, including the blurring of boundaries and the questioning of “canonicity” (see, e.g., Kress 2008).

A second key feature of the mobile complex is the changes to the nature, production, and use of cultural resources in society linked to a growing range of media and devices and rapidly changing media habits and social behavior in (young) people’s everyday lifeworlds, in particular in relation to friendship- and interest-driven online activity in which social and recreational media use become sites for (peer-based) learning through new genres of participation—in Ito and colleagues’ terms: “hanging out,” “messaging around,” and “geeking out” (Ito et al. 2008). We refer to this as “cultural practices.” Gee (2011) puts forward the term “passionate affinity-based learning” for people learning something connected to a shared endeavor, interest, or passion, often online. He notes that people associate with, are attracted to, or have an affinity for others because of a shared endeavor or interest and not because of other people’s “credentials” (i.e., formal qualifications). In the work of the LMLG, we similarly stress the importance of learners’ interests and appropriation in relation to individually constructed lifeworlds in order to be able to bring about transformative engagement with the curricular ground provided by educational institutions. (For a detailed discussion of appropriation, see Pachler, Cook, and Bachmair 2010.)

A third key feature of the mobile complex is the emergence of a new habitus of learning in which learners constantly view their lifeworlds with expectancy and contingency and see them framed both as a challenge and as a potential resource for learning in which their expertise is individually appropriated

in relation to personal definitions of relevance. We view learning as a socioculturally contingent process of meaning-making through communication among people across contexts utilizing various semiotic resources characterized by a range of affordances (for more, see Kress and Pachler 2007; Böck and Kress 2010). In the triangular structuration model of our sociocultural ecology (Pachler, Bachmair, and Cook 2010), this is termed “agency,” and we consider “cultural resources” to include various media, social networking sites, mobile devices and services, and so on, as well as related literacies and habitus. In their interrelationship these features determine the learners’ capacity to act on the world (agency), the stable routines in which they engage in their everyday lives (cultural practices), and the sociocultural and technological structures that govern their being in the world.

An Example of Becoming Aware of the New Learning Culture

In this example, 15-to-17-year-old teenagers, newly arrived in Germany from all over the world, were offered an opportunity to acquaint themselves with the unfamiliar German learning culture. They were invited to take part in a special program at a secondary school as part of which they were invited to undertake a 12-hour-long course (a bicycle or painting workshop), which took place outside of school across four afternoons and was organized professionally.

The facilitator of the workshop, one of the authors of this paper, invited participants to produce a portfolio consisting of photographs taken with their mobile phones. The final artifact, produced with presentation software, sought to reflect visually the workflow of the course. Participants were also encouraged to verbalize the workflow based on their photographs. Back at school, they summarized their experiences on slides, which they presented during a public event.

The facilitator recommended that participants model their artifacts on instructional leaflets. The focus was to be target-oriented with an emphasis on the components of bikes—for example, on wheel bosses or transmissions—and on the workflow involved in repairing a bicycle tube. The participants, a mixture of young men and women, focused on the technical aspects. At first they dealt successfully with wheel bosses or transmissions; then they added keywords in German to the pictures and a short description of the activities. In a second phase, back at school, they used presentation software to summarize, rethink,

and verbalize their experiences. Presentation software requires short written statements to explain what the photographs depict. Taking photographs supported learning from the perspective of personal action in cooperation with peers and an expert. The activities undertaken by participants were analytic (What are the elements of a gear transmission system?) and synthetic (showing the repaired transmission). Thinking and practical action started with visual perception, which did not require any knowledge of technical vocabulary (this was supplied by the German-language environment in which the participants operated). Because students took photographs, no memorization of abstract vocabulary was required. Instead, the focus was on speaking and learning by doing on the basis of self-selected visuals. The presentation of the results in the form of slides was a further step toward the acquisition of new language; it required participants to write short statements. The presentation ran only a few pages and fit in with image-oriented learning of key vocabulary but was enhanced to reach the level of articulation of a full statement in the new language.

The question of how to integrate the joy of learning into a target-oriented workflow arises. Participants were invited to take photographs for their *presentation* as well as for a personal diary. The mobile portfolio consisted of the process- and outcome-oriented presentation and the diary, which was like a collection of holiday photographs. The photographs from the diary allowed the integration of students' *fun*-oriented attitudes. By taking photographs that captured their attitudes, the participants became aware of these attitudes and could integrate them into their learning processes. The diary offered the facilitator a perspective on participants' attitudes that are usually excluded from learning in formal contexts, although these *informal elements* are an integral part of a successful learning process.

The multimodal artifact created by the painting group, which comprised only young women, was oriented toward self-representation as being dynamic and happy. This contrasts with their disciplined work ethic during the workshop. But the slides they created foreground another side of their learning habitus: to be self-confident as a group. In an individualized society, self-representation requires that we make overt who we are and how we can be socially integrated or how we integrate ourselves into a specific context. Self-representation is a context-related form of conversation in a society of individualized risks. In-

stitutions such as schools still presume a contingent social environment, something that is not necessarily true for young people from different learning cultures. This argument also applies to the out-of-school socio-cultural milieus to which NEETs often belong. Young migrants also need integration by self-representation.

The young women in the painting group used their mobile phones to take photographs, and they presented themselves as dynamic, active, and powerful but in line with the work process and with reference to the intended outcomes of their workshop.

The Impact of the Mobile Complex on Literacy

Literacy

Literacy is an established concept in education and in the public sphere. However, we wonder about the continued value of the term in its traditional sense and consider it to have become unhelpfully proliferated and overused. The keen interest in literacy is evidenced *inter alia* by the myriad of terms used in the specialist discussion in academia and the blogosphere alike (e.g., *literacies*, *new literacy*, *new literacies*, *digital literacy*, *digital literacies*, *electronic literacy*, *visual literacy*, *critical media literacy*, *21st-century literacies*). As a result, we consider a reinterpretation of the notion of literacy to be desirable.

One of the prime reasons why literacy is so central to the current debate about processes of transformation is the fact that learners do not act directly on the world when making meaning of and in it and when they seek to augment their inner, conceptual resources. Learners' actions are mediated by sociosemiotic tools such as language as well as by material artifacts such as technology. Literacy is seen as an essential and core element of education and schooling because it plays a crucial role in empowering learners to gain access to and effectively utilize key cultural resources (see Kress 2008; Cope and Kalantzis 2009) and because it has a significant impact on the personal welfare of individuals (as well as more widely on society and the economy) (Kirsch et al. 2002).

Literacy is not merely a cognitive phenomenon—that is, governed by mental processes—but comprises a set of social practices with cultural resources that differ across domains/genres and social groups (see Gee 2010). Gee (2010) also stresses the importance of situated cognition and argues that human understanding is not the result of storing general concepts in the head or applying abstract rules but instead is based on

using prior experiences, which differ across social and cultural groups, as a guide for action.

Carrington and Marsh (2008) explore changes in literacy as part of the Beyond Current Horizons project. They posit that the range of texts will expand together with the “repertoires of practice” required to develop mastery in the consumption, production, and distribution of texts. At the same time they remind us that established models of literacy, such as Freebody and Luke’s (1990) four resources model—code breaker (coding competence), meaning maker (semantic competence), text user (pragmatic competence), and text critic (critical competence)—continue to apply. Carrington and Marsh (2008, pp. 7–9) outline the following key concepts for the future of literacy:

- ubiquity: building connections between people and spaces within which people live and work through access to texts at the point of need;
- convergence: integrated forms of digital text;
- personalisation: a bricoleur approach towards textual construction;
- mobility: use of portable and personal technologies for more authentic and engaging learning experiences bridging school and community contexts and opening up new forms of inquiry;
- remix, mashups and copyright.

From the work of the LMLG similar issues and themes emerge; in particular, convergence. In comparison with Carrington and March, the LMLG considers convergence important for two main reasons: (1) because it captures the multifunctionality of mobile devices, combining a wide range of tools in one device that is characterized by important resources and affordances for meaning-making, representation, and content generation, such as copy-and-paste; (2) because of the access they afford to Internet-based services, tools, resources, networks, and related context generation. (For a more detailed discussion of user-generated contexts, see Cook, Pachler, and Bachmair 2011; Bachmair and Pachler 2014.)

The normalization of mobile devices has attracted a mixed response from educational institutions, practitioners, policymakers, and the popular media. Educational institutions and practitioners tend to be worried about issues such as e-safety, cyberbullying, and associated crime. Policymakers and the popular media frequently express concern about an alleged negative impact on standards of literacy.

Researchers have taken up the gauntlet in recent years to investigate such assertions, and evidence is starting to emerge that takes issue with them: various contributions to a special issue of the *Journal of Computer Assisted Learning*, for example, conclude that—according to the limited amount of experimental research available to date—the link between “textese” use and literacy skills in children “actually seems to be positive” (Kemp 2011, p. 1).

As Kress (2008) notes, the changes in structures, agency, and cultural practices discussed above manifest themselves in a range of significant changes in forms of text-making, knowledge production, and in the disappearance of a number of boundaries: around epistemology and ontology; concerning social interactions; around power, authority, and convention; and between knowledge and information. The “world” of communication has seen significant changes in recent decades, with the medium of screens and the mode of image becoming increasingly important and leading to a reduction in the significance of the mode of writing and print media. New media and social structures lead to texts becoming increasingly multimodal, dynamic, fluid, contingent, multiply authored, and “shared” and, as a consequence, more provisional. The question arises, what cultural techniques are appropriate in encoding and decoding (etc.) artifacts relating to a wide range of fragmented and individualized practices across different and heterogeneous groups. In the context of communication practices involving mobile devices, this includes the need to develop an understanding of the affordances and limitations of these devices and to acquire practices such as identifying, evaluating, and installing applications that augment the basic, predetermined functionality of devices (i.e., factory settings) to personalize and enhance access, storage, and retrieval to information. The mobile phone and related genres such as texting, for example, require a redefinition of linguistic principles in relation to redundancy and recursivity due to limitations in representational resources imposed by the technology on, for example, maximum message length and the relative complexity of inputting text on some models (e.g., menu-based, navigational input versus textual input), which leads to text-generation by selection. At the same time, the camera function enables the easy capturing of aspects of users’ lifeworlds as digital artifacts in the form of still or moving images for subsequent recontextualization.

(For a detailed discussion, see Pachler, Bachmair, and Cook 2010.)

Adami shows that user-generated content with mobile phones is mainly produced through a process of selection and transformation of (snippets of) text that are combined and recombined into new texts and recontextualized in new contexts that in turn lead to a “scattering of traditional coherence patterns between its so-formed representation and its new context” (Adami 2010, p. 45). The latter is a concept also used by Hug (2010) in his discussion of mobile learning with mobile devices. Adami likens these processes to the techniques of pastiche and bricolage. In addition, she argues that instead of coherence determining the success of communication, in the context of “mobile text” “the usability of forms (re-signified in different contexts)” is foregrounded rather than the intended meaning; as “a consequence, communication becomes an individualized participation in chains of semiosis according to the participants’ interests” (Adami 2010, p. 47).

Implications for Pedagogy

The importance of an effective response by schools to the mobile complex is regularly underlined by the results of the Programme for International Student Assessment (PISA), which suggests that reading is an aspect of schooling most influenced by families and practices in everyday life, and that low socioeconomic and migration backgrounds particularly affect literacy outcomes for young males (see, e.g., Kirsch et al. 2002).

A number of pedagogical responses to the transformations discussed earlier in this paper have been put forward, notably by the New London Group (1996; Cope and Kalantzis 2009) and Kress (e.g., Kress 2005).

The New London Group (1996) advanced the notion of a pedagogy of multiliteracies that emphasizes a lateral definition of texts and argues for the need to ensure all forms and resources of representation are included and that views learners as makers and remakers of signs and transformers of meaning. In so doing they frame the learner as designer of meaning rather than recipient and/or reproducer of “received, sanctioned and authoritative representational forms” (Cope and Kalantzis 2009, p. 175).

In various publications from the 2000s, Kress argues the need for a curriculum of “navigational aids”

Parameter A: Learning sets

Pole: Practice of the school — Pole: Practices of mobile media

Parameter B: Relationship to the object of learning

Pole: Mimetic reproduction — Pole: Personal reconstruction

Parameter C: Institutional emphasis on expertise

Pole: School curriculum — Pole: Personal expertise

Parameter D: Modes of representation

Pole: Discrete (mono media, mono modal) — Pole: Convergent

Fig. 2 Four parameters (Source: Pachler, Bachmair, and Cook 2010, p. 298).

to support text-making, reading, discernment, and discrimination. By that he means a curriculum that focuses on judgment and evaluation in ethical and aesthetic issues and moves from critique to design as learners design and redesign based on their interests (see, e.g., Kress 2008). For Kress (2009) the learner who brings his or her interest to the material in order to reshape it—that is, the learner as interpreter—is central. Also important in this context is an issue frequently raised in the field of media education; namely, that texts, especially commercially produced ones, come “branded” and “shaped through an economics of sponsorship, if not overt advertising” (Jenkins 2006, p. 16).

Böck (2010) proposes a pedagogy of social inclusion and mobile devices without fully delineating its constituent parts. Drawing on Freire (1972), her proposal aims at “changing horizons, potentials and affiliations of individuals and groups at the margins of a society . . . in order to connect them with groups in the mainstream of society” (Böck 2010, p. 32).

The LMLG also works with a didactic model around a number of parameters and focal points (fig. 2). Pachler, Bachmair, and Cook (2010) identify four parameters—learning sets, relationship to the object of learning, institutional emphasis on expertise, and modes of representation—in relation to which pedagogical decisions can be made along a continuum between different poles.

For example, a decision can be made to focus on convergent modes of representation while focusing on the school curriculum. In subsequent work (Bachmair, Pachler, and Cook 2011; Friedrich, Bachmair, and Risch 2011), LMLG members have started to elaborate on and exemplify the four parameters, in particular by delineating focal points for teachers and scenarios of use:

- to integrate informal learning by means of the mobile phone;

- to set up episodes of situated learning;
- to generate learning and media contexts;
- to construct conversational bridges;
- to support students as experts of media use in everyday life within the school; and
- to set up responsive contexts for development and learning.

Two important dimensions of a pedagogical response to the ongoing transformations in the work of the LMLG are a focus on composition and narratives (including learning trails) as participatory meaning-making. Both are dynamic phenomena with an experiential dimension (imagination, performance, self-expression, engagement in social and cultural practices, etc.) and that function as aids for meaning-making by which what is known is reconfigured for making sense of experiences and for “learning how to be” in particular contexts (see, e.g., Polkinghorne 1988). In Kress’s terms “navigational aids” can be seen as mechanisms to mediate and scaffold learners’ individualized view of the world within existing structures. Notably for us, discontinuity is an important cultural and textual feature in the engagement with and production of contemporary texts, one that needs to be addressed in the field of (language) education.

Recognizing Cultural Resources for Composition as Multimodal Bricolage

The examples presented here involve the relationship of learners to their contexts: T-shirts that make visible the learners’ user-generated contexts; presentations about a bicycle and painting workshop that are a kind of portfolio. These image products support simple forms of awareness. But they can also be read as narration, even if, at a first glance, they do not meet the established ideas of literacy for narration. The conceptual frame of “deference” is useful for helping us widen our expectations about the cultural resources that children and young people use for self-expression and narration. In the dynamic of individualization, keeping cultural resources standardized is also not easy. The concept of deference promoted by Rymes (2011), which focuses on embracing mass-mediated youth cultural practices, is helpful to make educators aware of the individualization of cultural resources for literacy. Formal learning institutions should recognize the variety of cultural resources that include visual and graphic forms. A deference approach

supports the assimilation of resources of the international youth culture, seeing learners as naive experts of their everyday life.

A second helpful perspective is that of Jocson (2012), who views text production as narrative bricolage. She valorizes the text production of young people from nondominant racial and ethnic backgrounds, recognizing that their literacy is changing and that the separation of the world of learning in school from everyday life is dissolving in a “proliferation of spaces” (Jocson 2012, p. 298). Young people traverse spaces and use different interfaces for their communication. Further, they copy and paste prefabricated material to produce “assemblages” that contain their stories and narratives.

The following section reports on Text + Images, a voluntary, after school workshop that took place in a town in southern Germany. Facilitated by one of the authors of this paper, the workshop involved seven 14–16-year-old participants, most of whom were first- or second-generation migrants with or without an asylum background. The main aim of the workshop was to offer an opportunity for creative writing using the media of youth culture. Intended learning outcomes were

- to appropriate cultural resources of the youth culture for creative and purposeful literacy-related activities;
- to gain an insight into processes of text production of high culture, exemplified by the poems of Herta Müller, Nobel Prize winner for literature; and
- to link associative text production with target- and object-oriented learning.

The intended focus of text production was the personal lifeworld of participants. Participants had access to the Internet, and a YouTube clip of a group of local migrants performing a hip-hop song was used as stimulus material. In addition, poems by Müller were presented on slides. The participants were invited to use their mobile phones, in particular their phones’ photo and video functions, for exploration and documentation, and they were asked to work in groups to create a slide presentation of the artifacts they produced.

Space constraints allow us to discuss only the boys in the group, although notable differences were observed between the boys and girls. For example, the

girls paid more attention to the social context of the workshop.

A brief analysis of the participants' composition from the perspective of representational resources, contexts, and appropriation suggests that the boys' presentation is clearly framed by Müller's poem. Their opening slide links their composition to the workshop by using the common logo as title. On the second slide, which introduces the group members, they set out their focus: friends/friendship. They then define the key notion of friendship with the help of a text they found on the Internet.

They link this definition to themselves by adding a photograph, which they had taken during the workshop. This photograph depicts one of the three group members joining hands with the other two. The level of abstraction of the definition of the notion of friendship and the presentation of the group correspond. The photograph does not show plain self-representation but explains with the help of an icon the meaning of the word *friendship*. Under the heading "social cohesion," participants show how they worked systematically. This is evidence that they were aware of the abstraction inherent in their pictures. They express target orientation and show that they had not acted "just for fun." The next slide is made up of written text and an image from the Internet. The issue being problematized in a general way is the relationship between wealth and life chances. The image retrieved from the Internet shows a hand holding a blue gem, which symbolizes the world.

A collage of typed text and photographs followed. The text-image collage is in the style of Müller's poems. The typed text was taken from the Internet and is in the style of a traditional poem. The boys selected a poem in Albanian, the family language of two of the boys. (The third boy's family language was Russian.) During the public presentation one of the boys read the poem and translated it into German for the audience. At the heart of the poem are emotions and feelings. With images from their own childhood the boys framed the typed text and its theme by referring to their personal history and lifeworld. Part of that lifeworld was Albanian as a family language, a fact that became visible within the school through the presentation. The boy who translated the Albanian text into German did so perfectly, presenting the translation, which he had practiced in advance, from memory. The poem was followed by a slide that shows a German text (also taken from the Internet) dealing with

values. Two recent photographs of the boys frame the German text.

The audience was able to witness multilingualism in action, and the final slide underlines their ability to use different languages. With this slide the boys refer to the facilitator's photograph about their play with words, and they reflect on what they now know about their own literacy (i.e., their ability to operate with and across different languages) under the heading "a collage of our languages."

What is the main feature of this text collage as a composition and its corresponding literacy? The boys portrayed themselves as sensitive, using such sentimental touches as the blue gem. In the foreground of their composition were the issues of collaborating as friends, working cooperatively, and the development of a value-oriented community. The boys referred to the text structure of the poems of Müller but placed more emphasis on images. In contrast to Müller, they did not reduce language to single words as units of meaning but to texts of several lines. They used images as units of meaning within statements. The boys started to develop a meta-level awareness of their composition, referring to it as a collage. Furthermore, they became aware of the breadth of languages. They were guided in their compositional technique by the rationale underpinning presentation software; namely, the integration of different semiotic resources into a multimodal representation.

The sequential nature of the program and the presentation of their composition on a public screen led participants to break up complex issues into pithy statements. Participants were aware of the aesthetic dimension of their composition, but they were not fully aware of the consequences of having chosen certain representational resources. The use of Albanian and German reflected different ethnic contexts but remained by and large in the sociocultural contextual milieu of migrant and low-income groups. Participants accepted without question different languages within relevant contexts. In addition to switching between language contexts, they also switched easily to the Internet as a context for their resources.

Conclusion

Do the features of multimodal presentations or T-shirt compositions in the mode of single images, short reports, or narrative bricolage outlined in this paper meet the expectations of the school and its agents, the teachers, the parents, the administration, and so

on? Are they valid forms of literacy within the school curriculum? Our line of argumentation around the cultural development of resources for representation and learning is not able to give a clear-cut answer.

The structures of a world in flux with dramatically changing cultural resources require new approaches to define literacy as a relational category within provisional structures, agency, and the cultural practices of individualized, mobile, and convergent mass communication.

Similar processes can be diagnosed for learning with its changing structures, agency, and practices. Provisionality is becoming a relevant, perhaps even dominant feature for appropriation and learning as well as for communication and expression. New modes of habitualized activities are combined with new cultural resources such as mobile devices within provisional sociocultural structures.

School-based educational practices arguably lag behind this transformation of societal structures and agency and are often critically disposed toward them. A critical approach is a necessary stance of pedagogy and education, which has to act in students' developmental interests. But the developmental interests of children and young people in a cultural and technological world in transformation also require a supportive attitude on the part of school-based education toward a new habitus of learning and expression, a new habitus of appropriating and using mobile cultural resources.

Which are the didactic tools of a critical but supportive attitude toward education? Our discussion of context awareness and composition as multimodal bricolage proposes to assimilate the habitus features of play, self-representation, and target orientation into the school curriculum. The input provided by students to the task of composition—that is, their provocative word play—is one example. The facilitator's input of recent poems from the realm of high culture, which the students assimilated by adopting copy-and-paste strategies for their own compositions, is another.

A necessary didactic prerequisite for reaching the intended workshop outcomes was to problematize the context of learning and teaching. In particular, the workshop meant to explore the relevance of the new cultural features of context generation through mobile devices within media convergence as legitimate school-based learning activities.

The proposed parameters and focal points try to comprise and condense the complex educational dis-

ussion into the form of didactic instruments for planning and analysis.

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