



Visual Competence, Media Literacy and "New Literacies" - Conceptual Considerations in a Plural Discursive Landscape

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Abstract

Debates on media competence and media literacy have been going on now for a few decades. Many concepts have been developed in various disciplines. Along with that, discourses on visual literacy have been intensified, too, although visuals have been used in educational contexts throughout history. But only recently, after almost three thousand years of historiography, turns like the iconic turn, pictorial turn or mediatic turn have been claimed. "Competencies of Visuals" (Ratsch et al. 2009) and their epistemological relevance are intensively discussed in arts, architecture and philosophy as well as in educational, communication and media studies. In this situation, we are facing new conceptual challenges for media education and media literacy discourses.

The paper starts (1) with an outline of some points of departures, followed (2) by a discussion of selected concepts of 'visual competence,' 'media competence' and 'media literacy.' In part (3), "new literacies" are questioned. Finally (4), the contribution aims at conceptual clarifications and the relativization of literacy concepts. In this context, medial forms sensu Leschke (2010) are being considered as a fruitful framework not only for future developments in media theory but also in media education and educational theory.¹

Keywords: mediatic turn, visual competence, visual literacy, media theory, media education

Points of Departure

From the cave paintings of the Cro-Magnon people to Plato's Allegory of the Cave and its ideology, from the prohibition of images to imaging techniques, from the "biblia pauperum" to the digital presentation media, from the first illustrations in scientific textbooks to the visual sociology of knowledge (Raab

2008) and the "networks of emerging iconocracy" (Faßler 2010, p. 9) – visuals and questions of visibility have always been relevant to processes of human communication. The trends and popularities have been quite variable, just like the corresponding relations between sense and sensuality, mediation and dissemination dynamics of knowledge, and not least epistemological and pedagogical hopes and significances. No matter which shape we give to the disruptions and continuities here in view of long-term dynamics, new emphases and developmental dynamics, qualitatively and quantitatively different from earlier ones, have been emerging for a while. The proliferation of digital image editing technologies and not least the mass use of web-based image and video platforms have been accompanied by a quantitative increase of images, unlike with any other historical advance of visualization. In qualitative respect, ways of using visuals and viewing practices have changed in many areas of life. Their significance in processes of knowledge and communication is reassessed, the "logic of the pictorial" (*Logik des Bildlichen*, Heßler/Mersch 2009) is addressed, and processes of "visualizing imaginary things which do not exist for our senses" and forms of "micrologicizing perception" (Faßler 2009, p. 290f) are reflected. And with a view to biocybernetic reproductive technologies, W. J. T. Mitchell writes:

[T]he oldest myth about the creation of living images, the fabrication of an intelligent organism by artificial, technical means, has now become a theoretical and practical possibility, thanks to new constellations of media at many different levels. The convergence of genetic and computational technologies with new forms of speculative capital has turned cyberspace and biospace (the inner structure of organisms) into frontiers for technical innovation, appropriation, and exploitation—new forms of objecthood and territoriality for a new form of empire. (Mitchell 2005, p. 309; italics in original)

The history of the imaginary images (*Vorstellungsbilder*) of the possibilities and boundaries of the realization of imaginary images and their reflection is thus set in motion again. New forms of the intentional materialization of imaginary images are coming into consideration; at least that is suggested by multi-billion investments in genetic engineering research.

Examining the previous research results more closely, the metaphor "coming into consideration" turns out to be misleading insofar as we are rather dealing with typical technological promises here and less with concrete scopes for design or choice, for instance in the treatment and generation of diseases. To phrase it slightly more carefully: In the interplay of bio- and computer technologies, computed images can become alive in a material sense which goes beyond esthetically motivated forms of the digital technogenesis of the visible, for instance in the movie industry.ⁱⁱ The metaphor at least suggests a new way of reading the antecedence of images. In his book *Ein Bild ist mehr als ein Bild (An image is more than an image, 2002)*, Christian Doelker lists several variants of the well-known dictum "In the beginning, there was the image": "writing was preceded by the petroglyph, articulated language by the mimic expression, rational thought by the mythical belief" (*ibid.*, p. 16). In the age of biocybernetic reproducibility, add to that: the creation of synthetic cells is preceded by the vision of artificial life on the drawing board, or better, via computers programmed by bio-engineers.ⁱⁱⁱ

Even if the biocybernetic developments are just beginning and costly in many ways, along with them, new challenges for media anthropology, media epistemology,^{iv} media criticism and not least for media communication and media pedagogy are beginning to show. This is about more than the interaction of bio- and infospheres and questions concerning the co-evolution of natural and cultural processes. For the discourses of visual competence, media competence and "new literacies," a new structural change of the public

is significant as well, as Heinz Moser (2008) points out in the wake of Appadurai (1996). This concerns the role of imaginary images which circulate in the area of conflict between media and migration, as well as a flexible framework of networked "scapes" which is suitable for studying cultural phenomena in globalized economies that cannot be adequately examined using center-periphery models (cf. Appadurai 1996, p. 32). The neologisms introduced in this context by Appadurai (ibid., p. 33) are "ethnoscape" (in the sense of the transnational mobility of persons), "technoscape" (global configurations of technological networks), "financescape" (landscapes of global cash flows), "mediascape" (flow of images and media offers of every kind) and "ideoscape" (politically relevant imaginary images, ideologemes such as liberty, wealth, sovereignty, etc.). The individual "landscapes" are regarded as disjunctive areas with their own dynamics which function as building blocks for imaginary worlds.

Excluding, for one thing, the fact that these descriptive perspectives lack differentiation, the interdependence of the developmental dynamics deserves more attention here, in my opinion. This does not only concern the interactive dynamics between cash flows and "technoscapes" or between "ideoscapes" and medialized forms of communication; it applies to all mentioned areas and, furthermore, to other forms of capital^v and to bio- and infoscapes. We are dealing here with complex relations and no less complex, networked dynamics, all of which are not made possible, developed, limited, unleashed, critiqued and reflected in a media-free space but under the conditions of medialization and mediatization.

This introductory sketch already makes clear how important the reflection of perspectives for describing present times is for treating questions of visual competence and media competence. They open up different horizons for reflection and possibilities of contingency processing, and they suggest various conceptual differentiations and problem layouts (cf. Hug 2008, p. 46-48). The focus here is less on maximally influential definitions of transformation diagnoses or claims about the "true" state of societal or medial reality than on the tentative, temporary and context-sensitive application of well-founded descriptive perspectives and the gradual review of their connectivity, usefulness and viability. Of the numerous concepts of societal self-description currently available, the following appear particularly relevant to me:

- The perspective *media-culture society* brings into focus the co-evolution of media-related, social, political, economic and cultural changes. Historically, the introduction of new media has time and again created new scopes for communication and cognition as well as for politics and economy. The historical media constellations, then, represent the structural socializing conditions and the construction of reality for certain periods of time (cf. Schmidt 2000, p. 175ff).
- The perspective *knowledge society* deals with the dimensions regarding the creation, disposition, dissemination and transmission of knowledge. A key aspect is the significance of different forms of knowledge as well as their interaction and their status as production factors. Precisely the polymorphic quality of knowledge, of its representational forms and social distribution pose a special challenge for pedagogy. This challenge cannot be met with euphoric proclamations of the knowledge society but only with differentiated offers of reflection and orientation (cf. Stehr 1994, Höhne 2004).
- In the perspective *network society*, an age-old human practice is developed further (cf. Castells 2001; Faßler 2001). Through the influence of information technologies, traditional networks today are evolving into information networks which have launched far-reaching transformation processes in the educational, working and life-worlds.

I view these perspectives of describing analyses of present times in a complementary relationship to one another. They turn out to be sustainable from an analytical and creative standpoint and correspond moreover to recent proclamations of a "turn" which are relevant to the subject matter of this article. Even if such turns have been announced in ever shorter intervals over the past few decades and consistently remain very limited in their impact, I consider worth discussing in particular the methodological and epistemological challenges linked with the pictorial turn (Mitchell 1994) and the iconic turn (Boehm 1994, p. 13f). The same holds true for the issues put up for debate together with the proposals of mediatic turns. While over long stretches during the linguistic turn, the emphasis was on linguistic dimensions and, in its approaches based on linguistic analysis, on conceptual analyses, the mediatic turn puts a heightened focus on symbolic, material, social and digital dimensions. Accordingly, the discourse on one or several mediatic turns means, on a meta-theoretical level, an alternative and addition to the established paradigms that is characterized by an emphasis on media, mediality and medialization (cf. Margreiter 1999; Friesen/Hug 2009; Hug 2009). On an empirical level, the significance of the media for processes of communication, knowledge-building and the construction of reality receives emphasis. The expression "medialization of life-worlds" in a way includes both aspects: the experienceable common-sense world and observations of media saturation, on the one hand, and the uncircumventability (*Unhintergebarkeit*) of medialized worlds and their function as starting points for our efforts to gain knowledge, on the other.

Visual Competence and Media Competence – Visual Literacy and Media Literacy

The current state of research in visual and media studies in general and concerning questions of visual competence and media competence in particular is extremely disparate. This does not only apply to the large number of involved disciplines together with the corresponding concepts of science, methodical preferences, terminologies and combinations of use- and/or knowledge-oriented research interests.^{vi} It also concerns tendencies of

- the call for inter- and transdisciplinary research projects without the establishment of adequate funding instruments and gratification systems,
- the cultural dynamics of knowledge and reception in different language areas (Who in the EU region takes serious notice of research results from Africa, Asia or Latin America? Who in North America receives scientific texts written in Spanish, French or German? etc.)
- the threefold proximity to everyday life, technology and politics in mainstream discourses.

The latter is valid not least for the mainstream of the relevant discourses on media competence. They tend to be focused on technology and are primarily oriented on application, regardless of the state of research achieved so far in media and communication studies and especially in media pedagogy. Their proximity to everyday life, technology and politics is apparent (1) in the everyday-theoretical use of expressions which are also applied in the theories and models of learning and in didactics, (2) in the modalities of the selection and representation of topics insofar as they are more or less oriented on the status quo of the industrial development of mobile equipment, instruments and relevant technologies, and (3) in the reductionist conjunction of free-market orientations with instrumental notions of learning and fictions about the computability of learning outcomes and academic achievements, as they become apparent from the ICT grant programs where the spending on learning- and education-oriented activities is in the range of interest of the total expenditure. Here, the proportionality of the means is important. It is not subsidies for technology as such, which are problematic *per se*, especially since they are necessary. Rather, the issue here is the inadequate distribution of the

means to different purposes, the fictions of control as well as the *pars pro toto* tendencies and hegemonic claims displayed by some special discourses.

They who promote and support learning and education technologies have, in the favorable case, accomplished a prerequisite for successful processes of learning and education. Yet many misinvestments in the area of e-learning have long demonstrated that the sowing of software products does not necessarily lead to a successful harvest of learning and educational achievements. Conversely, it is also true for critical concepts of education that they may be used for the mediation of ideologies or may revert to such. In contexts of everyday life, school and science, it can be observed time and again that, and how, justified criticism turns into the dogmatization of individual aspects, dogmatic blindness or missionary strategies for conviction and persuasion. Where technophobia becomes a habit, "critical" concepts of education become no less questionable than ICT programs in which new software technologies are sold as didactic innovations or educational measures.

My point here is not to illustrate what 'successful processes of learning and education' can mean in detail and which authorities regard such processes as more desirable than routines of superficial knowledge or lack of knowledge that are rarely called by their names. I am concerned with the question of the double dynamics of metaphorical expansions and pragmatic focuses. What does this mean?

I use 'double dynamics' for the complementary process of expanding areas of meaning, conceptual usages and routines of the figurative transfer of contexts, on the one hand, and use-oriented concretizations, mainstreaming activities and hegemonic claims of asserting particular interests, on the other. These double dynamics affect processes inherent to science and such in other "scapes" as well as in everyday-life practices or political discursive contexts. The interplay of expansionary dynamics and focusing tendencies in this context goes beyond the familiar question regarding many options and few ligatures insofar as, in times of epistemological pluralism, the diffusion of events and perspectives as well as the contingency of methodologies and scientific forms of knowledge are frequently associated with expanded possibilities of the "escape from arbitrariness" (*Flucht aus der Beliebigkeit*, Mitterer 2001). In short, if experts argue, it may enliven the scientific discourses and encourage new alternatives of problem solving. Incidentally, however, elusive ties and binding non-commitments are in fashion to the extent that they are considered useful in view of the general non-commitment. The argument concerning metaphorical expansions can be illustrated in the context of the development of discourses and programs on media competence. The term 'media competence' (*Medienkompetenz*) has been popular in the German language area for about twenty years. The origin of the debates dates back further, to the 1970s, as is well-known. The term 'communication competence' was introduced into the pedagogical discourse by Dieter Baacke (1973a), who subsequently refined the concept and named it "compound media competence" (*Kompositum Medienkompetenz*; see also Baacke 1996). Baacke thus gave the crucial impetus not only for the media-pedagogical debates on media competence but also for interdisciplinary connections and advancements. The term, in varied differentiations, has remained significant until today beyond the scope of media pedagogy, in the context of the theory and practice of education, social and cultural work as well as in the discourses of economy, politics, law, psychology, information science and technology (cf. Gapski 2001).

While the majority of efforts in the area of media competence, both the practically and theoretically motivated, over many years remained mostly limited to regional or national perspectives, the area of tension between media competence and media education (*Medienbildung*) (cf. for example Schorb 2009; Spanhel 2010) and attempts at international communication have

recently gained significance. In this context, particularly designations from the English-speaking world are attracting attention, such as the following definition by NAMLE:^{vii}

media literacy is seen to consist of a series of communication competencies, including the ability to ACCESS, ANALYZE, EVALUATE, and COMMUNICATE information in a variety of forms, including print and non-print messages.^{viii} (emphasis in original)

In addition and for the purpose of clarification, NAMLE offers further definitions such as:

- Media refers to all electronic or digital means and print or artistic visuals used to transmit messages.
- Literacy is the ability to encode and decode symbols and to synthesize and analyze messages.
- Media literacy is the ability to encode and decode the symbols transmitted via media and the ability to synthesize, analyze and produce mediated messages.
- Media education is the study of media, including 'hands on' experiences and media production.
- Media literacy education is the educational field dedicated to teaching the skills associated with media literacy. (ibid.)

It becomes increasingly obvious in the debates that the European exchange is hardly facilitated not only by the language-theoretical roots of the literacy concept but also by the various linguistic and cultural traditions as well as the performative characteristics. This is apparent particularly from the integrative efforts in the context of the European Charter for Media Literacy,^{ix} which pointedly describes the following, among other things:

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."(ibid.)

Even though representational and conceptual as well as practical and application-oriented aspects remain to be discussed in detail, the international communication efforts have set in motion important debates which can be related to discourses of educational theory, life competence and the art of life. Similar extensions and differentiations can be reconstructed by means of the terms 'visual competence' (*visuelle Kompetenz*),^x 'image competence' (*Bildkompetenz*), 'visual education' (*visuelle Bildung*) and 'visual literacy' (*visuelle Literalität*). In the German-speaking world, Christian Doelker in 1997 was the first to use the terms with a media-pedagogical intention and propose a differentiated concept (cf. Doelker 2002) which included receptive and creative dimensions. A core part of his concept is the image-semantic layer model. Visual competence here refers to those abilities and skills which are necessary for exploring the tectonics of subjective, inherent and intended meanings and of the qualities of visuals (validity, comprehensibility, coherence, tenability). In regard to the literality of images, Doelker's argument is based on an extended notion of reading (cf. Doelker 2002, p. 151), which is significant not least for the clarification of artistic claims.

"he term *Literalität* [*literality*] is not to be confounded with 'Literalität' as the 'German' counterpart of *literacy* = reading competence. (transl. from Doelker 2002, p. 151; italics in original)

Accordingly, Doelker works with a broad definition of 'reading' which relates to all forms of recorded configurations in and with which meanings can be discerned. What Doelker here considers to be an expansion based on visual-theoretical and educational-policy motivations, others, among them Müller (2008), view as a relatively narrow 'literacy approach' which does not cover many aspects relevant for their (broader) idea of 'visual competence' (ibd., p. 102). Their research group regards the latter as an interdisciplinary concept, more specifically, a paradigm for "basic research on the production, distribution, perception, interpretation and reception of visuals, aimed at understanding visual communication processes in different contemporary social, cultural and political contexts" (Müller 2008, p. 103).

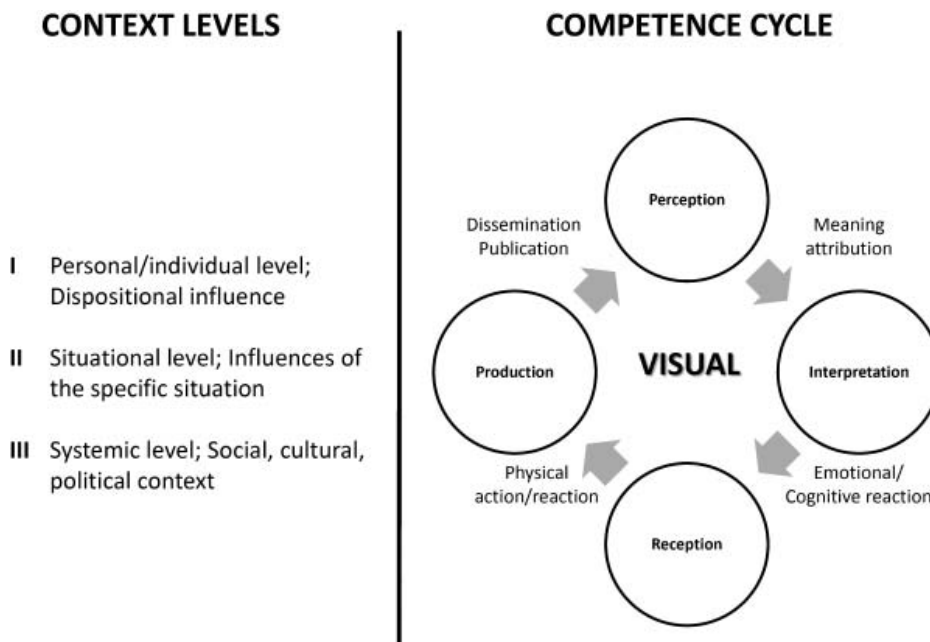


Fig. 1: Visual competence cycle (Müller 2008, p. 103)

This model distinguishes four areas of competence which are dynamically related:

Visual competence, as defined by Jacobs University's research group, is subdivided into four intertwined, but still distinct competencies: perceptual competence, decoding and interpretation competence, production competence, and intra- as well as intercultural perception competence. (ibd., p. 105)

Correspondingly, pedagogical standards of dissemination are located as subordinate aspects in a comprehensive concept of visual communication. Lothar Mikos, on the other hand, regards visual competence as a precedent area of media competence. He argues for paying more attention to non-discursive esthetic experiences and adding presentation elements to discursive media competence (cf. Mikos 2000, p. 10). He bases his argument on Mannheim's notion of 'conjunctive experiential space' (ibd., p. 2) and emphasizes aspects of socialization theory that pertain to the subject matter.^{xi} I want to leave it at exemplary references at this point. They already point out some terminological and translational problems and difficulties concerning the relation between the various conceptualizations. Moreover, they clarify that connotative aspects are also important in the attempt to relate more narrow concepts to broader ones. Thus, the role of visuals and visual concepts

in educational, socializing and perceptive processes is considered to be controversial not only in regard to media system contexts. With the question as to the "competences of visuals" (*Kompetenzen der Bilder*, Ratsch et al. 2009), the further differentiation of the discourse on competence and the expansion of the competence metaphors has reached a point that suggests rethinking the role of visuality in the structure of perception.

New Literacies – Unlimited?

In the current debates, not only English terms such as 'information literacy,' 'visual competence' or 'digital fluency' are increasingly significant. Recently, calls for new skills and abilities, so-called new literacies, have entered the picture. What does this mean? How do "traditional" areas of reading, writing, information, image and media competence relate to new skills such as multitasking, transmedia navigation or networking?

Renee Hobbs (2008), in her latest synopsis of debates about new literacies, distinguishes four approaches: "media literacy, information or ICT literacy, critical literacy, and media management" (ibid., p. 433). On the one hand, these approaches are quite similar to one another in regard to the following aspects:

1. The constructed nature both of authorship and of audiences within an economic, political and sociocultural context.
2. The circulation of messages and meanings, and the relative contribution of audience interpretation and specific features of message design, format and content.
3. An exploration of questions about how texts represent social realities, reflect ideologies, and influence perception, attitudes and behaviors about the social world and one's place in it. (Hobbs 2008, p. 437)

On the other hand, they are linked with various framings and focusings of problems together with correspondingly different proposals for solution. As an example, let me mention the white paper by Henry Jenkins et al. (2006), which—based on current social challenges of media convergence, participation and collective intelligence—favors a (media-)ecological approach:

Rather than dealing with each technology in isolation, we would do better to take an ecological approach, thinking about the interrelationship among all of these different communication technologies, the cultural communities that grow up around them, and the activities they support. Media systems consist of communication technologies and the social, cultural, legal, political, and economic institutions, practices, and protocols that shape and surround them. (Jenkins et al. 2006, p. 8)

Forms of problem solving and learning with a playful approach hold a special importance.^{xiii} The authors list the new skills and abilities as follows:

- Play** — the capacity to experiment with one's surroundings as a form of problem-solving
- Performance** — the ability to adopt alternative identities for the purpose of improvisation and discovery
- Simulation** — the ability to interpret and construct dynamic models of real-world processes
- Appropriation** — the ability to meaningfully sample and remix media content
- Multitasking** — the ability to scan one's environment and shift focus as needed to salient details
- Distributed Cognition** — the ability to interact meaningfully with tools that expand mental capacities
- Collective Intelligence** — the ability to pool knowledge and compare notes with others toward a common goal
- Judgment** — the ability to evaluate the reliability and credibility of different information sources
- Transmedia Navigation** — the ability to follow the flow of stories and

information across multiple modalities

Networking – the ability to search for, synthesize, and disseminate information

Negotiation – the ability to travel across diverse communities, discerning and respecting multiple perspectives, and grasping and following alternative norms. (Jenkins et al. 2006, p. 4; emphasis in original)

The authors emphasize the crucial role of "social skills" and "collaboration and networking" (ibid.). They gear their remarks at "average consumers" and point out the connections to traditional forms of literacy:

These skills build on the foundation of traditional literacy, research skills, technical skills, and critical analysis skills taught in the classroom. (Jenkins et al. 2006, p. 4)

There is no doubt this white paper presents important aspects that are worthy of discussion and attention in the context of contemporary debates about media competence and media literacy. However, my statement is meant in the sense of critical considerations rather than in a simple affirmative sense because the focus on popular cultural developments (for example, remix cultures, modding, fan fiction, videogames) points to an understanding of the problem that is primarily directed to Northern American circumstances and in which intercultural, education-policy and economic aspects receive extremely little attention.

To what extent do the new literacies represent trend-setting concepts and inevitable innovations in the light of media-cultural developments? To what extent do the new literacies constitute the problem that they are pretending to solve? I do not think there are general or easy answers to these questions. First of all, paradoxes and ambivalences such as the following must be kept in mind:

- Europeanization and internationalization of the education system – resistance to reform, lacking readiness for innovation
- economic capability, new work order and market-oriented qualification – equal opportunity and character building
- theoretical and science-systematic standards – economic and practical exploitation orientations
- modalities of science-internal recognition, performance testing and profile establishment – use-oriented expectations of benefits and dependencies caused by the policies regarding grants and subsidies.

They delineate contexts which are significant for assessing what makes sense and what does not in the area of conflict between trend-setting innovation and the marketing of empty clichés.

Secondly, I attach importance to the distinction between continuities, new areas of phenomena and transitions and changes. A re-evaluation of playful ways of learning is in order just as much due to historical-anthropological considerations and forms of play intended to be purpose-free, as it is in view of new medialized forms. It should not be ignored that the relation of education and entertainment was addressed not just in the century of the mass media or the "digital age" but repeatedly in the course of the entire history of education. Questions concerning desirable and problematic ways of living learning or the desirable and problematic aspects of entertaining didactics – with or without the use of technical aids – are not as new as they may seem from some accounts and critiques of edutainment.

The case is similar with the focus on participatory culture as argued by Jenkins et al. (2006) in their white paper. On the one hand, following Manuel Castells and Sonia Livingstone, they rightly point to new problems caused by excluding

subgroups (ibid., p. 14) and emphasize media-cultural interrelations, setting their argumentation apart from technology-oriented variants. On the other hand, historical and systematic considerations are clearly neglected here. The popularity of questions regarding participatory opportunities should not hide the fact that they have always been significant at least in the media-pedagogical debates on media competence in the German-speaking world. Even Baacke referred to the relevance of this aspect in his theoretical statements at the beginning of the 1970s (cf. Baacke 1973b, p. 219). – Yet, participatory culture must also be critically weighed under systematic aspects insofar as questions of the commercialization of communication require consideration. Even though it is true that educational values of pop-cultural offers are hardly taken into account in the German-speaking world and the proverbial baby is often thrown out with the bath water there, the euphoria about participating in Northern American popular culture appears one-sided and criticizable. To pick one prototypical example of the "Challenges of Participatory Culture" (Jenkins et al. 2006): If twelve-year-old girls create their pop stars online,^{xiii} perform in competitions, judge each other and can win a cheap backpack for their amazing creations every now and then, I see it rather as an example of a truncated argumentation and not a carefully balancing deliberation concerning the status of commercial dimensions in so-called new media cultures. Such a shortened argumentation could not withstand critical objections particularly in the sense of critique of knowledge and governmentality (cf. Heel 2005).

Outlook – Beyond Literacies?

Finally, I want to highlight some further conceptual difficulties. In the context of the discourses on media competence, the language-theoretical roots of the competence concept have long represented a blind spot and in many places continue to do so, and the situation is similar with the roots of the literacy concept. Especially the "new literacies" show that the figurative transfer of literacy to many different contexts is debatable since it is less about writing than about aspects of educability, orientation and the ability to act appropriately in a given situation.

Without a doubt, along with the media-cultural developments particularly in the past twenty years, the spectrum of questions and topics pertaining to the skills of written culture has expanded as well. In this respect, it is also a concern to further define literacy as an educational task (cf. Bertschi-Kaufmann/Rosebrock 2009). Yet the basic assumption that social life "is overall determined by forms of written communication" (Günther/Ludwig 1994, p. VIII) must be qualified today in light of processes of medialization and mediatization (cf. Lundby 2009). I think that many contemporary authors would approve of such a relativization. Opinions are divided over the question of *how* it can and should happen and which conceptualizations appear useful for which purposes.

It has been fashionable for a while to generate new concepts of literality and literacy, transfer them to various areas and apply them in metaphorical ways (cf. Gee 1999; Leu 1999; Sting 2003). The spectrum ranges from numerical, visual and musical to family and environmental to emotional and sexual literacies. No end of the new creations is in sight. Many descriptions of new literacies are pragmatically motivated, many are kept very simple (cf. Sheridan 2000), others are quite differentiated (Richardson et al. 2009) and clearly focused (cf. Institute of Museum and Library Services 2009).

By and large, a need for clarification emerges. Street & Lefstein (2007, p. 46-47) suggest to resolve the conceptual confusion by means of two strategies: On the one hand, they encourage separate studies in which the analyzed objects are clearly defined and terminologies clarified by means of ethnographic methods in the sense of a "closeness to the ground" (ibid., p. 46). On the other hand, they argue for reflecting the significance of (new) literacies for the

persons concerned by the area of conflict between life-world aspects and "new work orders" (ibd.). As to the terminological differentiations claimed by the authors, there are definitely studies available in which also epistemological dimensions beyond single-discipline aspects receive attention (cf. for example Olson/Torrance 1991, 2009). In addition, numerous points of contact exist in regard to the political dimensions, ranging from considerations of ideological critique (cf. Gee 1996) to critical visual-pedagogical approaches in the context of political education (cf. Holzwarth 2008) to approaches of "Visual Activism" (Sheridan et al. 2009), of media activism (cf. Meikle 2002) and *Tactical Biopolitics* (Da Costa/Philip 2008).

This does not exhaust the need for clarification, however. Even though the epistemological dimensions are often highly neglected in single-discipline studies and the call for application-oriented concepts is virtually ubiquitous, not least in media pedagogy, I do not see a way around basic theoretical reflections here. In my opinion, they reach beyond (questions of) literacies at least in a twofold sense. Widespread modalities of the "universal pragmatic" connection of literacy to various areas of phenomena, such as outlined above, all too easily hide the fact that letters, words, images,^{xiv} numerals, formulas, etc. are linked with various forms of meaning creation, significance attribution and knowledge building. Maybe we had better clarify the characteristics literacy, numeracy or mathemacy and picturacy and their relations than create expansions in the sense of mathematical, quantitative and visual literacy or apply metaphorical uses in the manner of everyday theory. In this regard, Gunther Kress proposes the following naming practice:

1. words that name resources for representing and their potential – speech, writing, image, gesture;
2. words that name the use of the resources in the production of the message – literacy, oracy, signing, numeracy, (aspects of) 'computer literacy' and of 'media literacy', 'internet-literacy'; and
3. words that name the involvement of the resources for the dissemination of meanings as message – internet publishing, as one instance. (Kress 2003, p. 23)

This suggestion has not yet been taken up on a broad basis, although it establishes useful ideas for a differentiated handling of the subject matter. Moreover, it could be further refined – for instance based on the media-philosophical considerations by Schmidt (2008) – and it can be connected to questions concerning design theory (cf. Krippendorff 2006) and the logic of images (cf. Nyíri 2004; Heßler/Mersch 2009).

The elaboration of corresponding differentiations has consequences that should not be underestimated. One or two odd formulations^{xv} are likely to be the least problem as long as the descriptions are comprehensible. What is more difficult, from my point of view, is the overcoming of self-evident assumptions, such as the distinction of five senses, which on closer examination is anything but self-evident (cf. Surana 2009). Presumably, these and similar basic distinctions relevant to perception can be relativized most likely in the context of polylogic approaches to research (cf. Wimmer 2001).

True, media pedagogy and art pedagogy cannot be limited to examining the results of media-philosophical or cultural-semiotic projects. In that regard, it is certainly essential to find a balance between theoretical and practical motives and demands. Overall, at present certain tendencies seem to emerge that prefer studying competences over esthetic experiences and educational processes since they are easier to verify. This does not mean that all relevant efforts already resemble those of the proverbial drunkard who looks for his lost keys under the streetlight because the light is better there. It does mean, however, that we should make the prerequisites and conceptual assumptions as explicit as possible and put them into context if we want to communicate about the significance of mediality and constructiveness and about "gains and losses" (cf. Kress 2005) in new media configurations.

Such efforts at communication are not exactly easy under the assumption that the forms of knowledge are contingent and on the conditions of transversal connections in the media system (not to mention of widespread interests of the strategic implementation and tactical overcoming). Institutionalized education as an example demonstrates how much literacy-based forms of the communicative stabilization of learning cultures can restrict the probing of creative, conceptual and critical-reflexive scopes. While media literacy is being discussed as an alternative to media regulation (cf. Hobbs 2008, p. 443-444), school is largely administered in the sense of a "monomedial province" (Böhme 2006). Suggestions for *Media Education in New Cultural Spaces* (cf. Bachmair 2010) have led to school trials and pilot projects here and there, but over large parts, school is designed in terms of a "literal counterculture" or a "media-resistant polis" (cf. Böhme 2006). Admittedly, Franz Pöggeler wrote almost twenty years ago:

The fact that pedagogy and educational science these days pay closer attention than in the past to images, next to print media, is certainly a result of the new weighting of the verbal-literary component of education in relation to the visual one: In our society's communication and information system, visualization is playing an ever increasing part. Print media are losing some of their prestige and impact even within the school system, whose history was largely identical with that of the spread of writing. (Pöggeler 1992, p. 11; translated by the author)

However, it seems to be a long way from the pedagogical iconology envisaged in this text to the realization of new educational potentials of transmedia network cultures (cf. Böhme 2006). In this regard, I consider two aspects to be important for further consideration:

- The debates about media competence have reached a point at which the opposition between technophobic humanities and cultural studies, on the one hand, and techno-euphoric engineering and natural sciences, on the other, has become historically obsolete.
- There is reason to doubt "whether it [...] makes sense that the internal differentiation of a knowledge system continues to be oriented on the individual media and their apparatuses" (Leschke 2010, p. 303).

The key function of media forms in a transversally integrated media system is relevant not only to media theory. To the extent that they represent "just as well the material of media communication as the aspect of the ideal of media technology," they are connected with objections "to the cultural-scientific neglect of technology and to a monovalent techno-determinism" (Leschke 2010, p. 300). What is even more, the theory of the dynamics of media forms also offers trend-setting perspectives of how to account for demands concerning the conceptualization, composition and critique of visual competence as well as of media competence and media education. These are not established once and for all on the basis of (un)critical statements but consistently developed anew as moments in the (co-)evolution of medialized configurations.

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Film

Gattaca. Director: Andrew Niccol, 1997.

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ⁱ Translated by Mag. Susanne Toelken-Mettauer.

ⁱⁱ Cf. for instance the science fiction movie *Gattaca* (director: Andrew Niccol, 1997) about genetically engineered strategies of "optimizing" human life and their impact on society.

ⁱⁱⁱ After all, in 2010 Craig Venter and his team succeeded in creating a living bacteria cell which is controlled by a chemically synthesized genome (see http://www.ted.com/talks/lang/eng/craig_venter_unveils_synthetic_life.html) – "A first breeze of artificial life," said the title of Sven Stockrahm's article in the online edition of *Die Zeit* from May 20, 2010 (see <http://www.zeit.de/wissen/2010-05/Bakterium-kuenstliches-Leben>).

^{iv} Cf. especially Schmidt (1999) and Faßler (2009, p. 293). This also presents new challenges to approaches of third-order cybernetics, such as the ones brought forward in the context of the theory of organizational development (cf. Kenny/Boxer 1990).

^v Cf. the forms of cultural capital in the sense of Pierre Bourdieu and also the new informational capital formats emerging from the concurrence of "digital capitalism" (Peter Glotz), "cognitive capitalism" (Hanno Pahl, Lars Meyer), "topological capitalism" (Maristella Scampa et al.) and "bio-political capital" (Toni Negri et al.; cf. Faßler 2010, p. 19).

^{vi} Cf. the expansion of the influential distinction between applied research and basic research by Vannevar Bush from the 1940s into a matrix model with four quadrants (Stokes 1997). That model includes (1) pure basic research with differentiated knowledge-constitutive interests with no intended application ("Bohr's Quadrant"), (2) application- or use-inspired basic research ("Pasteur's Quadrant") and (3) applied research without epistemological demands ("Edison's Quadrant"). Stokes (1997) leaves the fourth quadrant vacant; it could be filled with examples for the isolated determination of facts or the unsystematic exploration of phenomena. These distinctions serve primarily political purposes of research funding. In the empirical and philosophical study of science, they represent only one slice of the panorama containing relevant distinctions of knowledge forms and knowledge-constituting interests.

^{vii} *National Association for Media Literacy Education* (<http://namle.net/>), previously *Alliance for a Media Literate America* (AMLA).

^{viii} Cf. <http://namle.net/publications/media-literacy-definitions/> accessed February 18, 2011.

^{ix} Cf. <http://www.euromedialiteracy.eu/charter.php> accessed November 12, 2010.

^x For an overview of recent developments on the subject of visual competence cf. Anschöber (2005).

^{xi} In the context of art pedagogy, Peez (2005) calls for basing research on an expanded concept of visuals (ibid., p. 24) and accordingly consider productive and receptive as well as active and contemplative aspects of image- and presentation competence; the mentioned examples demonstrate that this demand is definitely met in adjacent discursive contexts. In my opinion, this makes the operative dimensions come to the fore as well. The call for a performative turn thus appears at least partially redundant, the more so as in the context of earlier debates on the pictorial turn and the iconic turn, not only narrow understandings of visuals had been dealt with.

^{xii} Cf. for instance the applications of the "Education Arcade," available online at <<http://www.educationarcade.org/>>.

^{xiii} Cf. <<http://mypoostudio.com/>>.

^{xiv} Cf. the distinction of pictures, images and icons and the problematization of the "world's readability as caretaker of the written universe against the invading images" (Faßler 2009, p. 29).

^{xv} Cf. for example "visual empowerment" ("visuelle Selbstbefähigung") as well as "visuality-competence" ("Bildlichkeits-kompetenz") and "visuality-in-competence" ("Bildlichkeits-in-kompetenz") by Faßler (2002, p. 21 and p. 95).