Part I

Media, Modalities and Modes
1

The Modalities of Media: A Model for Understanding Intermedial Relations

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What is the problem?

Scholars have been debating the interrelations of the arts for centuries. Now, in the age of electronic and digital media, the focus of the argumentation has somewhat shifted to the intermedial relations between various arts and media. One important move has been to acknowledge fully the materiality of the arts: like other media, they are dependent on mediating substances. For this reason, there is a point in not isolating the arts as something ethereal but rather in seeing them as aesthetically developed forms of media. Still, most of the issues discussed within the interart paradigm are also highly relevant to intermedial studies. One such classical locus of the interart debate concerns the relation between the arts of time (music, literature, film) and the arts of space (the visual arts). In the eighteenth century, Gotthold Ephraim Lessing argued famously in *Laocoön* that there are, or rather should be, clear differences between poetry and painting,¹ but for the moment there is a tendency rather to deconstruct the dissimilarities of various arts and media. W. J. T. Mitchell is perhaps the most influential contemporary critic of attempts to find clear boundaries between arts and media. Many important distinctions have thus been made, and then successfully erased; much taxonomy has been construed, and then torn down, and this process has led to many valuable insights – Is that not enough? What is the problem?

The problem is that intermediality has tended to be discussed without clarification of what a medium actually is. Without a more precise understanding of what a *medium* is, one cannot expect to comprehend what *intermediality* is. This is not only a terminological problem. On the contrary, the understanding of what a medium is and what intermedial relations actually consist of has vital implications for each and every inquiry in old and new fields of study concerning the arts and media: ekphrasis, cinema, illustration, visual poetry, remediation, adaptation, multimedia and so on. I find it as unsatisfying to continue talking about ‘writing’, ‘film’, ‘performance’, ‘music’ and ‘television’ as if they were like different persons that
can be married and divorced\(^2\) as to find repose in a belief that all media are always fundamentally blended in a hermaphroditical way. The crucial ‘inter’ of intermediality is a bridge, but what does it bridge over? If all media were fundamentally different, it would be hard to find any interrelations at all; if they were fundamentally similar, it would be equally hard to find something that is not already interrelated. Media, however, are both different and similar, and intermediality must be understood as a bridge between medial differences that is founded on medial similarities.

The most important aim of this essay is to present a theoretical framework that explains and describes how media are related to each other: what they have in common, in what ways they differ and how these differences are bridged over by intermediality. In order to accomplish this, it must be understood that the concept of medium generally includes several types or levels of mediability that have to be correlated with each other. ‘Medium’, of course, is a term widely employed and it would be pointless to try to find a straightforward definition that covers all the various notions that lurk behind the different uses of the word. Dissimilar notions of medium and mediability are at work within different fields of research and there is no reason to interfere with these notions as long as they fulfil their specific tasks. Instead, I will circumscribe a concept that is applicable to the issue of intermediality. Since intermediality will be understood as a general condition for understanding communicative and aesthetic mechanisms, events and devices, rather than a peripheral exception to ‘regular’ mediability, such a concept must actually include most of the media notions circulating in the academic world. Hence, I will not produce a two-line definition of ‘medium’. I find such definitions counterproductive when it comes to complex concepts and any clear-cut definition of medium can only capture fragments of the whole conceptual web. Instead, I will try to form a model that preserves the term medium and yet qualifies its use in relation to the different aspects of the conceptual web of mediability. As a term, ‘medium’ should thus be divided into subcategories to cover the many interrelated aspects of the multifaceted concept of medium and mediability. As my arguments unfold, I will distinguish between ‘basic media’, ‘qualified media’ and ‘technical media’. Basic and qualified media are abstract categories that help us understand how media types are formed by very different sorts of qualities, whereas technical media are the very tangible devices needed to materialize instances of media types. Consequently, when talking about a medium without specifications, the term can refer to both a media category and a specific media realization.

Evidently, it is important to note that qualified, basic and technical media are not three separate types of media. Instead, they are three complementary, theoretical aspects of what constitutes media and mediality. The wide concept of medium that will be presented here thus comprises several intimately related yet divergent notions that will be terminologically distinguished.
I believe that intermediality cannot fully be understood without grasping the fundamental conditions of every single medium and these conditions constitute a complex network of both tangible qualities of media and various perceptual and interpretive operations performed by the recipients of media. For my purpose, media definitions that deal only with the physical aspects of mediality are too narrow, as are media definitions that strongly emphasize the social construction of media conceptions. Instead, I will emphasize the critical meeting of the material, the perceptual and the social. Media of production and storage are not really relevant for the forthcoming discussion and although I recognize the relevance of the aspect of communication in its widest sense, my aim is not to discuss intermediality within the framework of communication models. Instead, I want to treat mediality from a hermeneutical point of view. I bracket much of the conditions of media production and focus on the perception, conception and interpretation of media as material interfaces situated in social, historical, communicative and aesthetic circumstances.

The material of my theoretical framework consists of the notions of modality and mode. Intermedial studies have their historical roots in aesthetics, philosophy, semiotics, comparative literature, media studies and, of course, interart studies. During the last few decades, however, the notion of multimodality has also gained ground, while the roots of this new plant have grown in different soils; social semiotics, education, medicine and language and communication studies. There are seldom cross-references between the two research fields of intermedial and multimodal studies and the notions of intermediality and multimodality are surprisingly seldom related to each other. Also, in qualified texts of recent date, it is far from clear how ‘intermedial’, ‘multimodal’, ‘intermodal’ and ‘multimedral’ are related. Since it is a waste of intellectual energy to develop two closely related research fields separately, it is a matter of priority to straighten things out as far as core concepts and basic terminology are concerned.

What is a medium?

Medium means ‘middle’, ‘interval’, ‘interspace’ and so on. The standard definition found in dictionaries stresses that a medium is a channel for the mediation of information and entertainment. Art might be seen as a complex blend of information and entertainment (Horace’s utile dulci) so it should be fully possible to include the art forms among other media. As we know, however, the term ‘medium’ is used in many related but different ways and it is also applied in contexts that are not relevant here. According to Marshall McLuhan’s influential ideas, media are the ‘extensions of man’ and he suggestively argues that not only the spoken word, the photograph, comics, the typewriter and television are media, but also are money, wheels and axes. Within the framework of McLuhan’s own sociological theory, this
notion works rather well, but in order to take the step from ‘medium’ to ‘intermediality’, more accuracy is needed.

The term ‘modality’ is related to ‘mode’ and these terms are also widely used in different fields. A ‘mode’ is a way to be or to do things. In the context of media studies and linguistics, ‘multimodality’ sometimes refers to the combination of, say, text, image and sound, and sometimes to the combination of sense faculties; the auditory, the visual, the tactile and so forth. In the work of Gunther Kress and Theo van Leeuwen, a mode is understood as any semiotic resource, in a very broad sense, that produces meaning in a social context; the verbal, the visual, language, image, music, sound, gesture, narrative, colour, taste, speech, touch, plastic and so on. This approach to multimodality has its pragmatic advantages but it produces a rather indistinct set of modes that are very hard to compare since they overlap in many ways that are in dire need of further theoretical discussion.

It is no wonder, then, that the discourses on media and modalities tend to be either separated or mixed up. Why bother to combine, or to keep apart, notions that seem to be fuzzy in rather similar ways? A medium is a channel, one might say, and of course there are many media, that is, modes of mediating information and entertainment. In ordinary situations, this language use is rather unproblematic. If one wants to understand the complexity of individual media in a more precise way, however, I think it is wise to differentiate between medium/intermediality and mode/multimodality. As far as I can tell, there is nothing in the etymology of the words ‘medium’ and ‘mode’, or in the established conceptual uses of them, that clearly determines how they should be related to each other, so here I will see it as my task to raise a theoretical construction and propose how to use the central terms in relation to each other.

Earlier efforts to describe the relations between different media and art forms as a rule start off with conceptual units such as image, music, text, film, verbal media or visual media, presuming that it is appropriate to compare these entities. The complexity resulting from such comparisons is often slightly confusing, I would say, because of two limitations. The first problem is that the units compared are often treated as fundamentally different media with little or nothing in common. Thus, every intermedial relation seems to be more or less an anomaly where the supposedly essentially different characteristics of allegedly separate media are presumed to be more or less transformed, combined or blended in a unique way. Mitchell has successfully criticized this way of thinking by pointing to the way various important traits are in fact shared by art forms that are generally seen as opposites, yet Mitchell’s discourse is also paradoxically but profoundly trapped in the tradition of treating art forms as separate entities. In spite of the efforts to erase most of the differences between poetry and painting, he anthropomorphizes the two art forms and emphasizes the ‘struggle’ between them, which makes it difficult to grasp the exact nature of the similarities of media as conceived.
by Mitchell.\textsuperscript{9} Media are both similar and different and one cannot compare media without clarifying which aspects are relevant to the comparison and exactly how these aspects are related to each other.\textsuperscript{10}

The second problem with many comparisons between conceptual units such as ‘dance’ and ‘literature’ is that the materiality of media is generally not distinguished from the perception of media. This is understandable since it is, in practice, impossible to separate the two. For human beings, nothing exists outside perception. Nevertheless, it is crucial to discriminate theoretically between the material and the perception of the material if one wants to understand how media can be related to each other. One must be able to determine to what extent certain qualities belong to the material aspects of a medium and to what extent they are part of the perception. This is a slippery business, no doubt, but one must acknowledge that, for instance, the quality of ‘time’ in a movie is not the same as the ‘time’ that is necessary to contemplate a still photograph, and that ‘time’ can be said to be present in many forms in one and the same medium. If one avoids taking notice of this intricacy, one is left with a featureless mass of only seemingly identical media that cannot be compared properly.

I therefore consider it a matter of urgency to put forward a model that starts at the other end, so to speak: not with the units of established media forms, or with efforts to distinguish between specific types of intermedial relations between these recognized media, but with the basic categories of features, qualities and aspects of all media. My point of departure will be what I call the modalities of media. The modalities are the essential cornerstones of all media without which mediality cannot be comprehended and together they build a medial complex integrating materiality, perception and cognition. Separately, these modalities constitute complex fields of research and they are not related to the established media types in any definite or definitive way; however, I believe that they are indispensable in all efforts to describe the character of every single medial expression. They are all very familiar although their interrelations have not been systematically accounted for. I call them the material modality, the sensorial modality, the spatiotemporal modality and the semiotic modality, and they are to be found on a scale ranging from the tangible to the perceptual and the conceptual.

Media and art forms are constantly being described and defined on the basis of one or more of these modalities.\textsuperscript{11} The categories of materiality, time and space, the visual and the auditory, and natural and conventional signs, have been reshaped over and over again, but they tend to be mixed up in fundamental ways. Hence, in insightful essays, such as Jiří Veltruský’s ‘Comparative Semiotics of Art’, it remains unclear what the ‘material’ of an art form is.\textsuperscript{12} According to Veltruský, materials can be divided into the ‘auditory and visual’; the material of music is said to be ‘tones’ and the material of literature is said to be ‘language’. Furthermore, the material of literature is supposed to oscillate between materiality and immateriality.\textsuperscript{13} Although
this categorization is fairly representative, it is not at all illuminating. The
category of ‘material’ is fundamentally untenable since it includes aspects of
the arts that cannot be treated as equals; tones, language and even the immate-
rial. ‘Tones’ must be seen as related primarily to the sensorial modality
whereas ‘language’ must be understood in semiotic terms; however, language
actually also consists of some sorts of ‘tones’. What the ‘immaterial’ material
is, I do not know. Perhaps the most common mistake in intermedial com-
parisons is to confuse the notions of ‘visual’ and ‘iconic’: the visual is about
using a specific sense, as will be discussed later, whereas the iconic is semiosis
based on similarity (that only sometimes can be seen).

I thus propose that we distinguish between the four modalities mentioned
above to enable a clearer view of how media are constituted by both the
physical realities and the cognitive functions of human beings. I want to
stress that all media, as I understand the concept, are necessarily realized in
the form of all four modalities; hence, it is not enough to consider only one
or a few of them if one wants to grasp the character of a particular medium.
In this respect, there is a fundamental difference between my approach and
the systematic, often hierarchic, but necessarily simplistic classifications and
divisions of the arts that were put forward from the eighteenth century
and well into the twentieth century.14 The proposed model can be used to
highlight both crucial divergences and fundamental parallels between all
sorts and variants of media forms, which gives a firm ground for understand-
ing, describing and interpreting the most elementary intermedial relations.
Of course, the complexity of the innumerable intermedial relations that can
be derived from the four modalities, not least from the semiotic modality,
can only be hinted at.

When I speak of modalities henceforth, I mean these four necessary catego-
ries in the area of the medium ranging from the material to the mental,
and when I speak of modes, I mean the variants of the modalities as described
below. Entities such as ‘text’, ‘music’, ‘gesture’ or ‘image’ are not seen as
modalities or modes. The modalities are obviously interrelated and depend-
ent on each other in many ways, but nevertheless they can be rather clearly
separated theoretically. Also, the modes are entangled with each other in
many different ways, depending on the character of the medium.

Before discussing the four modalities, a preliminary distinction must be
made. All media need technical media to be realized. Our knowledge of the
outer world is always limited by and dependent on our senses but, unless
one gives oneself up to solipsism, one must assume that all media have a
material ground. The notion of a technical medium will be discussed and
defined later in this essay, since a more delineated explanation of what a
technical medium is requires an understanding of the four modalities; here,
it must suffice to say that a technical medium is not the same as the material
modality. The modes of the material modality, like the modes of the three
other modalities, must be understood as latent properties of media, whereas
the technical medium is the *actual* material medium, the ‘form’, that realizes and manifests the latent properties of media, the ‘content’.

**The four modalities of media**

The order in which the four modalities will be presented is not arbitrary. I would not say that the order from the material, the sensorial and the spatiotemporal to the semiotic is ‘temporal’ or ‘hierarchical’ in any clear-cut way, but I do suggest that there is a point in starting with the material aspect since this is what would exist even if all living creatures were to be wiped out from the surface of our planet. The sensorial is the next stage since it is a prerequisite for the more ‘advanced’ spatiotemporal and semiotic modalities. Without sensory impressions there cannot be any conceptions of time, space or meaning. The semiotic modality is the ‘last’ modality since it can be said to include, or at least be based on, the other three. It is hence also the most complex modality.

The **material modality** can thus be defined as the latent corporeal interface of the medium. The material interface of television programs and motion pictures, for instance, consists of a more or less flat surface of changing images (in a wide sense of the notion) combined with sound waves. The interface of most kinds of written text also consists of a flat surface, but the appearance of the surface is not changing. The interface of music and radio theatre consists of sound waves. Regular theatre, on the other hand, must be understood as a combination of several interfaces: sound waves, surfaces that are both flat and not flat and that have both a changing and static character, and also the very specific corporeal interface of human bodies. The interface of sculptures normally consists of extended, generally solid materiality.

The materialities of media can differ in many ways that cannot always be clearly separated, of course, but I think it is proper to make an approximate distinction between three modes of the material modality: human bodies, other materiality of a demarcated character such as flat surfaces and three-dimensional objects, and material manifestations of a less clearly demarcated character such as sound waves and different sorts of laser or light projections.

The **sensorial modality** is the physical and mental acts of perceiving the present interface of the medium through the sense faculties. Media cannot be realized: that is, cannot mediate, unless they are grasped by one or more of our senses. Usually, we talk about the five senses of humans, which may here be described as the five main modes of the sensorial modality: seeing, hearing, feeling, tasting and smelling. Still, the issue is, as usual, more complex. At least three levels of the sensorial must be discerned. The first level is *sense-data* that originate from objects, phenomena and occurrences but that can never be captured in isolation without a perceiving and interpreting agent. Often, but far from always, sense-data tend to cause inter-subjective
sensations. The sense-data of media come from the realized material interface. The second level of the sensorial consists of our receptors: cells that when stimulated cause nerve impulses that are transferred to a nervous system. The third level is the sensation, meaning the experienced effect of the stimulation. All our sensations consist of integrated experiences of the way a variety of receptors perceive and interpret an array of sense-data.

The exact nature of sense-data and sensations, and the relation between them, is very much disputed, whereas the physical receptors have been studied and described in detail. Exteroceptors register changes in the external environment, interoceptors are sensible to the internal conditions and proprioceptors give us information regarding length and tension in muscle fibres and sinews. Our five senses are thus actually, to be more precise, the five sense organs that register changes in the exterior environment: eyes, ears, olfactory organ, gustatory organ and skin. For the moment we witness an increased interest in the interoceptors and the proprioceptors but most media are still primarily understood as exterior channels of information. Chiefly sight and hearing, the two cognitively most advanced faculties, deserve our attention in the context of media and arts, but not exclusively. Music and speech are first and foremost heard, but there is a clear physical link between exterior hearing and inner balance that cannot be ignored. A sculpture is mainly seen, but it is impossible to grasp its entity without moving and hence also involving the inner senses. Even if one does not actually touch its surface one sees and indirectly feels its tactile qualities. The reactivation of memories of sensorial experiences plays a certain part in the perception of media. Reading a text, for instance, often involves the creation and recollections of visual experiences that are very remote from the way the alphabetic letters look, and it also involves an inner hearing of the sounds of the words. New sensations are thus frequently a complex web of perceived and conceived sense-data combined with retrieved sensations.

Sense-data cannot be grasped, cannot be conceived as sensation, unless they are given some sort of form, Gestalt, in the act of perception. The spatiotemporal modality of media covers the structuring of the sensorial perception of sense-data of the material interface into experiences and conceptions of space and time. Media, like all objects and phenomena, receive their multilayered spatiotemporal qualities in the act of perception and interpretation; thus, the spatiotemporal cannot be identified with the properties covered by the material modality, although there is certainly a strong link between these two modalities. I basically adhere to Kant’s idea that space and time are a priori sensory intuitions ‘that must precede all empirical intuition (i.e., the perception of actual objects)’. Thus, because of cognitive conditions, all media necessarily in some respect receive both spatial and temporal qualities. Furthermore, the principles of physics teach that the spatiotemporal relationship is indeed very complex: time and space interact not only on the level of perception but as physical phenomena as such, but we
do not have to bother about that when it comes to media modalities. In this context, it suffices to state that all media have aspects of the two basic modes of space and time which must theoretically be kept apart in some respects and brought together in other respects. The closer we come to the sense-data, the more time and space seem to be able to be considered separately and the more they can be said to be part of the material modality; the closer we come to the sensations, the more the distinction between space and time loses its relevance. This critical difference is often overlooked, which has led to some confusion in the discussion of intermediality.

Spatiotemporal perception can be said to consist of four dimensions; width, height, depth and time. The corporeal interface of a photograph has only two dimensions; width and height. A sculpture has three material dimensions, all of them spatial; width, height and depth. A dance has four dimensions; width, height, depth and time. Every dance performance has a beginning, an extension and an end situated in the dimension of time, while a photograph, as long as it exists, simply exists. If one closes one’s eyes in the middle of a dance performance, something is missed and the spatiotemporal form cannot be grasped in its entirety. If one closes one’s eyes while watching a photograph, nothing is missed and the spatial form remains intact. In this respect, considering the material modality through the spatiotemporal modality, there are very distinct and certainly relevant spatiotemporal differences between media.

Hence, media that lack the fourth dimension, time, can be said to be static, considered as material objects: their sense-data remain the same. For media that do incorporate the dimension of time in their physical manifestation, meaning that their sense-data change, some further distinctions can be made. Motion pictures and recorded music, for instance, have fixed sequentiosity. Hypertexts and much music accompanying computer games can be said to have partially fixed sequentiosity. Mobile sculptures, truly improvised music and a performance broadcast live on television have (at least potentially) non-fixed sequentiosity. There are certainly no definite borders between these categories, and for some media one must also consider the semiotic modality in order to understand the spatiotemporal nature of the medium. Listening to a recorded poem is like listening to recorded music: the interface of the medium must be said to have fixed sequentiosity. Listening to a poem being read live is to perceive a medium hovering between the fixed sequence and the non-fixed sequence. Reading a printed poem is to perceive a medium with a clearly spatial material interface, but as soon as the conventional semiotic aspect of language is considered, the perception also incorporates temporality and fixed sequentiosity (for most standard poems) or at least partly fixed sequentiosity (for poems lacking clearly distinguishable lines). However, this kind of sequentiosity, being attributed not to the material interface but to the realization of sequential sign systems, has a less definite character.
The most basic form of spatiality is hence the manifestation of the material modality in terms of physical width, height and depth, but that is far from the whole story since our cognition to a large extent works in terms of spatiality. Also, abstract concepts and experiences of time have spatial characteristics. Thinking in terms of spatiality is a fundamental trait of the human mind that has a significant effect on the way we perceive and describe media. Experiences and interpretations of, for instance, narratives and music are also conceived of as spatial relations and patterns.  

Some such conceptions are closely connected to certain types of primarily visual sense-data. The notion of virtual space covers the effects of media that are not three-dimensionally spatial on the level of the material interface but that nevertheless receive a spatial character of depth in the perception and interpretation. Paintings and photographs actually have only two dimensions, width and height, but often, by means of resemblance of certain visual qualities in the perceived world they give the illusion of a third, depth, which creates a virtual space in the mind of the beholder. The interface of a movie, correspondingly, has three dimensions: width, height and (fixed sequential) time, but usually an illusion of depth is created. The virtual space created by a computer is undoubtedly slightly different, since we can choose to a certain extent how to move within it, but it nevertheless consists of width, height and (partly fixed sequential) time, together also creating the illusion of depth. Indeed, verbal narratives also create various sorts of virtual spatiality in the mind of the listener or reader – not only abstract, conceptual spatiality but virtual worlds within which the reader can navigate.  

Consequently, at least three levels of spatiality in media can be discerned: space as a trait of the interface of the medium (the material modality considered through the spatiotemporal modality), space as a fundamental aspect of all cognition and space as an interpretive aspect of what the medium represents (virtual space).

Temporality in media can be understood in a similar way. The most fundamental form of time consists of the way the medium’s material modality is manifested through its sense-data. Some media have corporeal interfaces that are simply not temporal. Yet, it is important to note that all media are obviously realized in time: all perception and interpretation of media and what they mediate are necessarily inscribed in time, which complicates the modal relations between time and space. Also, media that are not basically temporal become situated in time as soon as they catch our attention, which of course has implications for our conception and interpretation of such media.

As a counterpart to virtual space, the notion of virtual time might furthermore be introduced. Some specific media have spatial characteristics that encourage the interpretation of the spatial in terms of time passing. To some extent, there are conventions that make us look at pictures, in a comic strip for instance, in a certain temporal order. However, this is not a case of virtual time, but rather an instance of pictorial sequentiality produced by
merging conventions of decoding symbolic and iconic signs. Virtual time is rather characterized by the capacity of individual pictures to depict not only one static moment but a series of occurrences. Interpretations of still images of what we, on iconic grounds, take to be moving objects or creatures always include an interpretation of where the object or creature was ‘before’ and ‘after’ the frozen time in the image. Some still images, for instance photographs, may have qualities in the image, such as objects represented with blurred contours or stretched and transparent objects, that we take to be indexical depictions of objects moving in space and time. These ‘illusions’ of partly fixed sequential time might be called virtual time, which is the case also for all sorts of time represented by verbal narration. In short, virtual space and virtual time can be said to be manifest in the perception and interpretation of a medium when what is taken to be the represented spatiotemporal state is not the same as the spatiotemporal state of the representing material modality considered through the spatiotemporal modality.

Again, we have at least three levels of temporality in media: time as a trait of the interface of the medium (the material modality considered through the spatiotemporal modality), time as a necessary condition of all perception and time as an interpretive aspect of what the medium represents (virtual time).

Consequently, there are certainly fundamental differences between media when it comes to time and space. If one does not acknowledge these differences, one cannot understand the complexity of interpreting media in terms of clashes, fusions and mutual exchanges between the categories of time and space. The difference between media with various forms of spatiotemporal interfaces is never dissolved, of course, but it is certainly crucial to note the tension created in a medium lacking, for instance, temporal qualities in the interface, and yet provoking temporal aspects in the perception and interpretation.

So far nothing has been said about meaning, which I think primarily belongs to the semiotic modality. Since the world is meaningless in itself, meaning must be understood as the product of a perceiving and conceiving subject situated in social circumstances. All meaning is the result of an interpreting mind attributing significance to states of affairs, actions, occurrences and artefacts. In its widest sense, semiotics is a theoretical field aiming at understanding how the processes of signification work. For me, the most prolific endeavours of semiotics are those bordering on hermeneutics, such as the pragmatic sign discussions of Charles Sanders Peirce. Following Peirce, meaning can be described as the result of sign functions, and although there are no signs until some interpreter has attributed significance to them, one can distinguish between different sorts of signs, or sign functions.

The material interfaces of media have no meaning in themselves, of course, but the process of interpretation already begins in the act of perception. Conception and cognition do not come after perception; rather, all interpretations are the results of an interpreting, meaning-seeking mind.
The moment we become aware of a visual sensation, for instance, the sensation is already meaningful at a basic level. Seeing a dancer is to become aware of a visual sensation of a body being inscribed in a spatiotemporal continuum. The sensation may also include apprehended similarities with other phenomena in the world and gestures that we recognize from other performances. The dancer may wave her arms like a bird, jump like a frog and then bow. What we take to be imitations of animals may be described as iconic sign functions, whereas the bow is primarily a conventional sign denoting ‘the end’.

The semiotic modality thus involves the creation of meaning in the spatiotemporally conceived medium by way of different sorts of thinking and sign interpretation. The creation of meaning already starts in the unconscious apprehension and arrangement of sense-data perceived by the receptors and it continues in the conscious act of finding relevant connections within the spatiotemporal structure of the medium and between the medium and the surrounding world. There are two different but complementary ways of thinking: on the one hand, some cognitive functions are mainly directed by propositional representations, while other cognitive functions mainly rely on pictorial representations. Brain research has shown that to a great extent the two ways of thinking can be located in the two cerebral hemispheres. We think both in an abstract way and in a concrete (visual and spatial) way. These interrelated but nevertheless different ways of cognition are deeply correlated, I would say, with the semiotic categories. Earlier, it was common to distinguish between conventional or arbitrary signs and natural signs. Peirce’s most important trichotomy – symbol, index and icon – has the advantage of avoiding the slightly misleading idea that some signs exist ‘in nature’, but obviously the symbol is a conventional sign, as Peirce states, and the index and the icon are in a way natural signs. The indexical sign function is based on cause and closeness, while iconicity is based on similarity: capacities that are part of the outer world as it is perceived and conceived by us. In semiotic terms, thinking based on propositional representations can be described as meaning created by conventional, symbolic sign functions, whereas thinking based on pictorial representations can be described as meaning created by indexical and iconic sign functions. The indexical and the iconic sign functions are deeply related to the way the mind conceives sense-data as spatiotemporal structures, which is why especially this kind of meaning is the result of interpretation also on the subliminal level. The spatiotemporal structures conceived by our mind are ‘designed’ to be meaningful – not in a propositional way, but in a pictorial way.

I thus propose that convention (symbolic signs), resemblance (iconic signs) and contiguity (indexical signs) should be seen as the three main modes of the semiotic modality. According to Peirce, who stresses that the determinate aspect of all signs are ‘in the mind’ of the interpreter, the
three modes of signification are always mixed, but often one of them can be said to dominate.\textsuperscript{27} In most written texts, the symbolic sign functions of the letters and words dominate the signification process. Instrumental music and all kinds of visual images (for instance, drawings, figures, tables and photographs) are generally dominated by iconic signs, although photos also have an important indexical character. The iconic qualities of music and images differ, of course, since the musical signs are auditory signs that mainly refer to motions, emotions, bodily experiences and cognitive structures, while the visual signs of images largely refer to other visual entities, but all of these sign functions are based on resemblance.\textsuperscript{28} The semiotic character of all media is exceedingly complex but there is no doubt about the basic semiotic differences between, for instance, a written text and a moving image.

These semiotic modes, together with the spatiotemporal, the sensorial and the material modes, form the specific character of every medium. Let us briefly and rudimentarily examine a few examples. Traditional sculpture has a three-dimensional, solid and static material interface. It is primarily perceived visually but it also has tactile qualities. Generally, the iconic sign function dominates. An animated movie consists of a fixed sequence of moving images and sounds. Its corporeal interface is a flat surface with visual qualities combined with sound waves, and the combination of two-dimensional images and sound often creates an effect of virtual space. The images are first and foremost iconic and they lack the specific indexical character of images produced by ordinary movie cameras. The sound generally consists of voices, sound effects and music: the musical sounds, but often also much of the voice qualities, are very much iconic, while the parts of the voices that can be discerned as language are mainly decoded as conventional signs. Printed poetry has a solid, two-dimensional material interface, or a sequential combination of such interfaces (if realized in the technical medium of a book). It is perceived by the eyes, but also when read silently it becomes apparent that it also has latent auditory qualities in the conventional system of signification called language. Most poetry gains its meaning through these conventional signs, but there may also be substantial portions of iconicity in both the visual form of the text and the silent, inner sound experiences produced by the mind. In terms of spatiotemporality, printed poetry is essentially spatial. Very rarely, virtual space is perceived as a result of illusive depth in the two-dimensional visual appearance of the poem, whereas virtual space in the sense of illusionary worlds is often created. Printed poems that are dominated by readable words, rather than, for instance, clusters of letters, are indirectly (partly) sequential since the conventional signs (partly) determine the temporal realization of the written language.

As one can see from these few examples, the modes of different media clearly differ and the modalities always interact in more or less complex
ways. Since the modalities cannot be seen as isolated entities, the proposed model offers no simple, mechanical way of checking off the modes of the modalities, one after another, but it suggests a method of investigating minutely the features of various media and how they may be interpreted. The model roughly supports ideas about media always containing other media (McLuhan29), or media always being mixed media (Mitchell30), but it also accounts for, in some detail, what it can mean to say that media are always entangled in each other, and in which respects, in fact, media are not contained by or mixed with other media: it is about media necessarily sharing the four basic modalities, but having the shifting modes of the modalities only more or less in common; it is also about seemingly having modes in common when in fact many media features come into existence on different levels, ranging from the material interface to the perception and interpretation of the medium.

There are thus media similarities and media dissimilarities. All media are mixed in different ways. Every medium consists of a fusion of modes that are partly, and in different degrees of palpability, shared by other media. Every medium has the capacity of mediating only certain aspects of the total reality. Since the world, or rather our perception and conception of the world, is utterly multimodal, all media are more or less multimodal on the level of at least some of the four modalities, meaning that they in some respect include, for instance, both the visual and the auditory mode, both the iconic and the symbolic mode, or both the spatial and the temporal mode (materially or virtually). I think it is fair to say that all media are multimodal as far as the spatiotemporal and the semiotic modalities are concerned, whereas some media, such as computer games and theatre, are multimodal on the level of all four modalities.

The two qualifying aspects of media

The four modalities are thus necessary aspects of all conceivable media, but it is not always sufficient to consider only the modes of the modalities to reach a proper understanding of how media are actually realized and understood. A deeper understanding of individual media realizations, their infinitely many qualities and their way of taking part in a world of constant change, requires additional perspectives. There are at least two other aspects involved in media constructions and media definitions. These aspects complement the modalities, but they are also to some extent involved in the character of the modes. I propose they be called qualifying aspects of media.

The first of these two qualifying aspects is the origin, delimitation and use of media in specific historical, cultural and social circumstances. This may be called the contextual qualifying aspect. Modal combinations and blends can be performed in very many ways and often there is no manner of automatically deciding, on the basis of the modal properties, where the limits of a medium
are to be found. That can be determined only by way of investigating historically determined practices, discourses and conventions. We tend to talk about a medium as something that begins to be used in a certain way, or gains certain qualities, at a certain time and in a certain cultural and social context. ‘Visual art’, ‘Morse messages’, ‘sign language’ and ‘e-mail’ are not eternal media although they may be neatly described as far as the modal properties are concerned – they appear and (perhaps eventually) disappear and are intelligible only in certain cultural and social contexts. Sometimes it is a more or less radical change on the material and technical level, such as the invention of a new printing technique or a new technological device, that triggers the genesis of what is taken to be new media. Sometimes it is rather old techniques that are seen as new media when adopted in new contexts, as when photographs are exhibited at galleries and museums or when letters are used to perform ‘mail art’.

The second of the two qualifying aspects that define media includes aesthetic and communicative characteristics. This may be called the operational qualifying aspect. There is a strong tendency towards treating a medium as a medium, or an art form as one form of art, only when certain qualitative aspects can be identified. Such aspects are, of course, not eternally inscribed but formed by conventions. In fact, Lessing’s notorious assertions concerning the rigorous difference between poetry and painting are clearly normative and deal with qualifying aspects of the arts of time and space. Lessing’s claims regarding very distinct differences between the temporal art of poetry representing action and the spatial art of painting representing objects do not really concern the basic, modal aspects of media. He recognizes important semiotic differences between the arts, of course, but constantly demonstrates not least how (allegedly bad) poetry can represent objects. Poetry, however, should not be as ‘speech and its signs in general’ he claims. According to Lessing, then, the restrictions concerning spatiality and temporality in poetry and painting, respectively, are primarily a question of qualifying aspects.

Another example of how the operational qualifying aspect works would be ‘cinema’ which, it has been argued, did not become ‘cinema’ the day the technique was invented. Cinema, like other new media, borrowed aesthetic and communicative characteristics belonging to old media, and although the first films also had distinct communicative and aesthetic characteristics, of course, it took a while before the many qualifying characteristics of the mediated content developed into recognizable media forms. Eventually, there came to be two notions attached to the same term: cinema as a set of techniques and cinema as a multifaceted qualified medium developed within the frames of, but not determined by, the technical aspects. Music, on the other hand, can be mediated by a variety of technical media, but most people would not include simply any kind of sound in the notion of music. Music, as an art form, a qualified medium, must be produced within assured
communicative circumstances and fulfil certain conventional aesthetic criteria to be accepted as music. These circumstances and criteria vary, no doubt, but if they were to be annihilated, few people would find it meaningful still to talk about the medium of music.

Dance is also a qualified medium governed by aesthetic standards, yet this art form is closely related to gesture, which might be seen as a qualified medium of another kind. The primary modes involved in both dance and gesture are the body, visuality and spatiotemporality. As far as the semiotic modality is concerned, both dance and gesture include iconic and symbolic signs. I presume there is a tendency towards more indexical sign-functions in gesture but the main difference between dance and gesture is to be found in the operational qualifying aspect: dance adheres to conventions of aesthetic expression whereas gesture is primarily part of communicative situations.

These two qualifying aspects often interact, of course (and I guess it would be feasible to split them into three, four or even more specific aspects). As emphasized by Jürgen E. Müller, the aesthetic and the communicative features of a medium often arise, or become gradually accepted, or disappear, at a certain moment in history and in certain socio-cultural circumstances. The relativity in many definitions of particular media is thus strongly related to the relativity of defining genres and subgenres of media. A genre cannot be circumscribed as an abstract entity without considering how both ‘form’ and ‘content’ are related to both aesthetic and social changes and sometimes it is an open question whether a new aesthetic or communicative practice should be called a medium or a genre.

The two qualifying aspects thus cannot be left out when trying to delineate the contours of a medium. A painting consists of paint on a two-dimensional (or weakly three-dimensional) surface that can be seen (and to a lesser degree felt and smelled). Generally, the iconic signs dominate. The iconic signs, together with conventions for representation, very often make us perceive virtual space in the depiction. In order to be counted as a painting instead of only paint spread around, however, the picture must be produced and presented within generally accepted social and artistic frames and it should have some aesthetic qualities. None of these qualifying aspects are truly stable, though. Like all art forms and other qualified media, the nature of ‘painting’ can only be circumscribed ad hoc. The modalities of the shifting notions of painting are rather stable, however, and provide a useable starting point for discussing the limits of the medium. If the material surface of an alleged painting is strongly three-dimensional, it can consequently be argued straightforwardly, on the basis of conventional genre and media borders, that it in fact should be seen as a sculpture due to its material modality. Of course, this ‘redefinition’ leaning on modality properties may have an impact on the way the painting or sculpture is conceived when taking into account the qualifying aspects of media definitions.
All of the four modalities, and as a rule also the two qualifying aspects, must hence be considered when attempting to find the core of one medium or another – if there is one. However, I think there is a lot to gain in acknowledging not only the existence of modalities and qualifying aspects but also their different natures. There is no point in comparing different media if the media in question are described or defined on the basis of only a selection of modalities and qualifying aspects that are not properly related to each other. There is a point in defining ‘music’ as a medium since it can be delimited rather unambiguously by way of the four modalities and the two qualifying aspects, notwithstanding the open character of the aesthetic qualities. ‘Literature’ and ‘alphabetic text’ are not media as such though, I would say, since there is a distinct and extensive modal difference between the material, sensorial and spatiotemporal modalities of visual text and auditory text. ‘Visual text’ and ‘visual literature’ (based on printed or otherwise inscribed signs), however, might be seen as media, since they are both categories that include fairly similar medial objects (if ‘visual text’ is understood to be a written sequence of linguistic signs on a spatial surface). On the other hand, there is a difference between the media ‘visual text’ and ‘visual literature’: visual literature is heavily dependent on the two qualifying aspects while visual text is a sort of medium that can largely be defined by way of only the four modalities. Media that are mainly identified by their modal appearances I propose to call basic media. Art forms and other cultural media types always rely strongly on the two qualifying aspects and hence can be called qualified media.

The distinction between basic media and qualified media is not absolute and, since the modes of the modalities are not easily isolated entities, there is no definite set of basic media, I think. However, if we define ‘text’ as any conventional sign-system, media such as ‘auditory text’, ‘tactile text’, ‘still image’, ‘moving image’, ‘iconic body performance’ and ‘organized non-verbal sound’ would be examples of what can be seen as basic media. ‘Visual text’, however, should be seen as a cluster of basic media that differ depending on whether they are produced by material signs or body movements, whether they are fixed in space or inscribed in a temporal flow and perhaps also whether they consist of singular sign units or sequences of signs. Apart from being defined by the two qualifying aspects, qualified media can consist of both single basic media, for instance documentary photography being based on still images, and combinations of basic media, for instance motion pictures being primarily based on moving images, auditory text and non-verbal sounds.

What is intermediality?

It has been argued, for good reason, that intermediality is a result of constructed media borders being trespassed; indeed, there are no media
borders given by nature, but we need borders to talk about intermediality. Werner Wolf emphasizes that media borders are created by conventions and Christina Ljungberg stresses the performative aspect of border crossings.40 Intermediality would thus be something that sometimes ‘happens’; an effect of unconventional ways of performing medial works.

Media borders are of at least two kinds, however: media differ partly because of modal dissimilarities and partly because of divergences concerning the qualifying aspects of media and the conventionality of media borders is mainly a facet of the qualifying aspects.41 Intermedial relations between basic media such as ‘moving image’ and ‘still image’ can thus be relatively clearly described within the framework of the four modalities, whereas intermedial relations between qualified media such as ‘auditory literature’ and ‘music’ to a great extent also rely on the two qualifying aspects. In the first case, the border between the two basic media of ‘moving image’ and ‘still image’ is mainly to be found in the spatiotemporal modality, since still images are spatial whereas moving images are both spatial and temporal. In the second case, the border between ‘auditory literature’ and ‘music’ is partly of a modal character, considering that all literature is primarily (but not exclusively) symbolic and music is primarily (but not exclusively) iconic, and partly of a qualified character, since the boundaries between what is counted as literature and music are also largely dependent on cultural and aesthetic conventions. A ‘normal’ reading of a poem is generally seen as literature, whereas a singing performance of the same poem counts as music – and there are many performance variants in between the literary and the musical that cannot be classified as either literature or music in a clear-cut way since there is no definite border to be crossed. Sometimes it is rather a question of whether the poem is being performed in a ‘poetry reading’ or a ‘concert’. This cultural and aesthetic ambiguity of the difference between auditory literature and music is clearly linked to the semiotic modality, however. Also, a rather neutral reading of a poem has some iconic potential, and what is taken to be the increasing ‘musicality’ of a more varied, rhythmic and melodic reading is in fact strongly linked to an increase of the iconic sign function.

Both kinds of media borders, the modal and the qualified, can be crossed in two rather dissimilar ways. I think it is appropriate to distinguish between, on the one hand, combination and integration of (basic or qualified) media and, on the other hand, mediation and transformation of (basic or qualified) media.42 Theatre, for instance, normally combines and integrates, to varying degrees, basic media such as auditory text, still image and body performance. The aesthetic aspects of these combinations and integrations of basic media are part of how theatre is understood and defined as a qualified medium. Each basic medium has its own modal characteristics and when combined and integrated according to certain qualitative conventions the result is what we call ‘theatre’, consisting of different kinds of material
interfaces, appealing to both the eye and the ear, being both profoundly spatial and temporal, producing meaning by way of all kinds of signs and, certainly, being circumscribed by way of historical and cultural conventions and aesthetic standards. Theatre may thus be said to be a qualified medium that is very much multimodal and also, in a way, very much intermedial since it combines and integrates a range of basic and qualified media. The pop song, to take another example, is a qualified medium that includes the two basic media ‘auditory text’ and ‘organized non-verbal sound’. The consequences of the combination and integration of these two basic media are not as far-reaching as the combination of several basic media in theatre. Auditory text and organized non-verbal sound have the same material interface: sound waves that are taken in by the organs of hearing. Their way of being fundamentally temporal, but also to a certain degree spatial, is similar. The difference between auditory text and organized non-verbal sound is clearly to be found in the semiotic modality: the process of signification in auditory texts is mainly a question of decoding conventional signs, whereas the meaning of the organized non-verbal sound first and foremost is a result of interpreting the sounds in terms of resemblance and contiguity.

An unqualified combination and integration of these two basic media is not enough to produce a pop song, however. Normally, both the auditory text and the non-verbal sound need to have certain qualities that confer on them not only the value of ‘lyrics’ and ‘music’ but also of ‘pop lyrics’ and ‘pop music’. The qualities of qualified media become even more qualified, so to speak, when aspects of genre are involved; a genre might therefore be called a sub-medium. Indeed, we usually deem that the lyrics produced by the singer are in themselves music, as is the sound produced by the mechanical and electronic instruments. The integration of the two basic media in a pop song is consequently in effect very deep, since the two media are more or less identical when it comes to three of the four modalities, and concerning the fourth modality, the semiotic, it is perfectly normal to integrate the symbolic and the iconic sign-processes in the interpretation of both literature and music. Texts are generally more symbolic and music is generally more iconic, but the combination and integration of words and music stimulates the interpreter to find iconic aspects in the text and to realize the conventional facets of the music.

Whether it is relevant to talk about the combination and integration of media is thus a question of degree: media that share no or few modes, such as music and visual literature, can only be combined or weakly integrated, whereas media that have many modes in common may be deeply integrated. In fact, one may certainly say that media consisting of many different modes in a way are ‘integrated’ or even ‘mixed’ already as ‘isolated’ media, as Mitchell emphasizes. However, it is imperative to note that every medium is modally ‘mixed’ in a way that is more or less unique, allowing
different kinds of intermedial mixtures with other media consisting of dissimilar modal combinations.  

Similarly, whether it is reasonable to talk about the mediation or transformation of media is a question of grade. In order to understand this properly, the notion of technical medium, which has already been used tentatively, must be discussed further. I define a technical medium as any object, physical phenomenon or body that mediates, in the sense that it ‘realizes’ and ‘displays’ basic and qualified media. In this sense, paper is a technical medium since it can mediate written words, whereas a pen, which can only produce and not display written words, is not a technical medium. A guitar, however, which can both produce and at the same time realize musical sound, can also be said to be a technical medium if one considers especially its sound-realizing aspects. Basic and qualified media can exist only as ideas without technical media. A technical medium can thus be described as realizing ‘form’ while basic and qualified media are latent ‘content’. The crucial connection between the ‘form’ and the ‘content’ of media is found in the relation between the technical medium and the material modality: the material modality of a medium consists of a latent corporeal interface that can be realized in actual manifestations by technical media.

Like all form–content relations, the relation between technical media and the material modality is very tight: the theoretical distinction can and must be made, but in practice the two cannot be separated. For instance, the material modality of sculpture consists of (an idea of) extended, generally solid materiality that can be realized by technical media such as bronze, stone or plaster. As an abstract notion, sculpture is not connected to specific technical media. Actual sculptures, however, are always necessarily realized by particular technical media, for instance, metal or plastics. Accordingly, when talking about media, many aspects are involved: ‘a medium’ may mean both a basic or qualified medium with latent qualities and a particular realization of a basic or qualified medium in a specific technical medium. We generally say that both ‘sculpture’ and ‘a sculpture’ are media, although it would perhaps be more lucid to say that the latter is an instance of a medium or a ‘medial configuration’ in the phrasing of Irina Rajewsky. Hence, intermediality is both about abstract relations between basic and qualified media and about connections between and features of specific works, performances and media products.

Every technical medium can be identified according to the range of basic media it has the capacity of mediating: that is, which modal variants of the four modalities it can mediate. The defining features of a technical medium are its capacity to realize specific material interfaces and the perceiver’s capacity to interact with these interfaces and with other users of the medium, whereas the more or less hidden technical properties of the technical medium (the means of production and storage in a wide sense) are of subordinate interest as far as this proposed conception is concerned. 
Mass media should be understood as a kind of technical media that have the capacity of permitting, say, ‘simultaneous participation of many people in some significant pattern of their own corporate lives’, as McLuhan suggests. The television set is an illuminating case in point: it is a technical medium able to mediate a range of basic media, primarily ‘moving images’, ‘auditory texts’ and ‘organized non-verbal sound’, but also ‘still images’ and various sorts of ‘visual texts’. There is a decisive difference between television screens being able to transmit images in colour or in black-and-white only, since the latter sort limits the range of potential interfaces. In contrast, the procedural difference between analogue and digital technologies has no importance in itself when focusing on how the senses meet the material impact. The computer, another technical medium, can mediate the same basic media as the television set. Furthermore, it provides the opportunity to interact with the material interfaces and to communicate with other computer users. The orchestra is a technical medium that realizes ‘organized non-verbal sound’. The singer is a technical medium, being able to mediate both ‘auditory texts’ and ‘organized non-verbal sound’, and certainly also ‘body performance’. Stereo equipment is a rather ‘pure’ technical medium that mediates, without having the capacity to produce, ‘auditory texts’ and ‘organized non-verbal sound’. Some technical media combine the human and the non-bodily materiality: a man playing a Jew’s harp might be seen as a cyborg able to mediate unusual fusions of ‘auditory texts’ and ‘organized non-verbal sound’.

Every technical medium, accordingly, can fully mediate certain basic and qualified media but only partly mediate other media. Basic and qualified media can hence be mediated more or less completely and successfully by different technical media. A theatre performance can only be realized by a combination of technical media such as, for instance, human bodies, an orchestra and properties. A television set, which mediates a feature film very well (except for the size of the screen), is only capable of partly mediating a theatre performance: the complex corporeal interface of the theatre appealing to many senses is reduced to a flat screen and a concentrated source of sounds and the true visual three-dimensional spatiality is transformed to virtual spatiality. A solo dance is mediated quite well by a television set, not very well by still photographs and only in a radically altered form by a radio – all depending on the shifting modal capacities of the technical media. Of course, qualified media can be mediated many times by a row of technical media, which might be called remediation.

Some terms, we must remember, hover in a slightly confusing way between denoting technical and qualified media. We have already noted that ‘cinema’ did not become cinema in a qualified way the day the technology was invented. The term ‘photography’, which I recently used to denote rather vaguely a technical medium, is also the name of a qualified medium which has in fact been mediated by various technical media through history.
Cameras are technical devices of production (with the capacity to register light chemically or physically) which can be said to be attached, more or less distantly, to technical media with shifting properties, for instance, silver-plated sheet copper, photographic paper or a screen (a computer screen or a display on the camera itself).

Certain technical media can mediate basic or qualified media that may represent other technical media, which is the case, for instance, when we see a book or a dancing body on the television screen, but I would not say that a technical medium as such can be mediated by another technical medium. The technical medium of a body can be represented on the television screen, but it is rather the qualified medium of dance that is being mediated. Similarly, seeing a representation of a book on the screen has very little in common with interacting with a real book since the technical medium book is not mediated. However, the basic media that a book can mediate – certain visual texts and still images – can also be mediated very well by the television screen. Seeing parts of a book in a television program may thus be described as seeing a representation of the technical medium ‘book’ mediating certain basic media which are actually also being mediated by the technical medium ‘television set’. To put it more straightforwardly, the technical medium ‘television set’ mediates the qualified medium ‘television program’ that represents the technical medium ‘book’ that mediates the basic medium (visual, verbal, static) ‘text’. If one brackets a few links in the chain one can also say, correctly, that the technical medium ‘television set’ mediates the basic medium (visual, verbal, static) ‘text’.

It is thus important to realize that mediation and representation are closely associated and yet distinct. Mediation is a relation between technical media and basic or qualified media whereas representation (in this context) is a relation between basic or qualified media and what they signify (which may be almost anything, including technical media and other qualified media). The issue of representation thus belongs to the semiotic modality, which is only one of the many aspects of media and mediation. Sometimes, however, when the process of mediation is very smooth; that is, when the material, the sensorial and the spatiotemporal modalities do not cause any friction in the mediating procedure, representation and mediation seem to come very close: a photograph of a landscape painting is definitely a question of mediation and when asked what the photograph represents one is inclined to say ‘a landscape’ whereas it actually represents ‘a painting’: the photograph mediates a painting that represents a landscape. To be even more detailed: the technical photographic medium, for instance, photographic paper, mediates the qualified medium of photography that represents the technical medium of a coloured surface that mediates the qualified medium of, say, oil painting that represents a landscape. No doubt it is easier, and often sufficient, to simply say that the photographic image
represents a landscape, but when wrestling with intermedial issues there are no short cuts!

The relation between technical media and basic media is thus a question of technical media being able or not being able to mediate certain modes of the modalities. Consequently, an important facet of the relation between technical media and qualified media is about technical media also being fit to realize the qualifying aspect of aesthetic and communicative characteristics. As I stated earlier, all qualified media are characterized by their origin, delimitation and use in specific historical, cultural and social circumstances (the contextual qualifying aspect). Since the existence of specific technical media is an essential facet of every historical moment and cultural space, all qualified media (qualified ideas of mediality) are more or less strongly determined by specific technical media (realizations of mediality). Some qualified media are actually fundamentally linked to irreplaceable technical media. Hence, technical media inevitably also play a crucial part in the forming of the characteristic aesthetic and communicative qualities of qualified media (the operational qualifying aspect). Oil painting can be described as a qualified medium characterized not only by certain modes but also by unique aesthetic qualities linked to the technical medium of oil colour, which was invented and developed at a certain time and in a certain cultural context. Similarly, qualified media types such as computer games are inconceivable without the resource of recently invented technical media that allow advanced interaction with the displayed interface.

When the mediation of basic and qualified media through technical media is restricted by the modal capacities of the technical media, or when the technical media allow of modal expansion, that is, when the mediation brings about more or less radical modal changes, it may rather be described as transformation. A solo dance being mediated by a radio is drastically transformed by the mediation. I can think of two ways to perform such mediation: either the dance is transformed to auditory text or to organized non-verbal sound. In both cases, the human body of the dancer, which is normally considered to be a vital part of dance, is substituted by sound waves and the visual mode is substituted by the auditory mode. In the case of a dance being transformed to an auditory text, the spatiotemporal furthermore is reduced to a primarily temporal mode, and, perhaps most importantly, the iconic mode is transformed to a symbolic mode.

The qualified medium photography being mediated by a book is another example of potentially radical mediation. Again, I can think of at least two ways of mediating photography by way of the technical medium of a book. If reproduced as an image, the book is an ideal technical medium for mediating a photograph, and certainly other still images as well, presenting virtually no modal limitations at all compared with how photography is usually presented. In fact, the book must be seen as one of the technical
media that originally determined the qualifying aspects of photography. If mediated as a verbal description, however, the book offers the possibility of a smooth mediation of visual texts. However, the visual text is in itself a radical transformation of the photography: the two-dimensional spatiality (involving virtual depth) of the primarily iconic and indexical still image has been transformed to two-dimensional spatiality that, because of the mainly symbolic character of the visual text, also involves the temporal aspect of fixed sequentiality.

It is hence not necessarily the technical medium that ‘forces’ the transformation. Ekphrasis, for instance, is part of the general habit of transforming basic and qualified media to other basic and qualified media, which is sometimes a result of the modal constraints of technical media (as when a football match is covered on the radio) and sometimes a result of aesthetic or communicative choices to take advantage of modal possibilities (as when a verbal narrative is transformed to a symphonic poem or when a movie is transformed to a computer game). The classical ekphrasis, a poem describing a painting, is characterized by a certain kind of medial transformation: the factual space and the virtual time of the painting’s visual iconicity are being transformed to the virtual space of the poem’s sequentially arranged symbolic signs.54

Obviously, there are very many kinds of intermedial transformations.55 Sometimes these involve fairly clear and complete relations between specific art works or media productions, as when a particular newspaper article is clearly recognizable in its Internet version (although with fewer words and added animations and hyperlinks) or when a specific novel can be identified as the source of a movie (although the narrative has been abridged and visual and iconic qualities have been added). Sometimes it is rather a question of less definitive and fragmentary media traits that travel between modes and media types, as when musical form is traced in a short story or when visual traits associated with comic strips can be said to have found their way to the moving images of motion pictures.

In her book Intermedialität, Irina O. Rajewsky operates, on different levels of distinction, with three notions that I find relevant when discussing media transformation: transmediality (Transmedialität, phenomena that are not media specific, such as parody), medial transposition (Medienwechsel, media transformations such as adaptation) and intermedial references (intermediale Bezüge, for instance narrativization of music or musicalization of fiction).56 These distinctions are valuable as long as one does not force them. In practice, however, it is not always clear when a medium is actually a distinct transformation of another medium, exactly when some of the indistinct media borders have been transgressed, or which traits are to be considered as belonging to the one medium or the other. Intermedial transformations can only partly be described as a fixed set of media relations. Ultimately, it is a question of hermeneutics: when finding traces of another medium, whether
it is a basic medium or a specific qualified medium, it sometimes makes sense to say that the initial medium is very much recognizable and that it has been transformed to the other medium. Sometimes, if the connection seems more fragile, one might prefer to say that the one medium simply refers to the other. The only method of deciding whether it is a case of ‘strong’ transformation or ‘weak’ reference is to interpret. Actually, it even makes sense also to talk about the transformation of fictive media. There is no fundamental difference between the descriptions of, for example, an existing photo and a non-existent photo. At times, the most important issue is not at all to determine the transformational direction and specific relation between two specific media instances but rather to compare traits, structures and forms of meaning that are to be found in many qualified media, within a specific historical context or crossing historical and social boundaries, where they ‘circulate’ without being definitely linked to the one or the other medium. Such transmedial phenomena are best captured by transmedial notions and concepts.  

What is the conclusion?

The starting point of this essay was the simple idea that if the notion of medium is not specified, the notion of intermediality cannot be understood properly. Media must be understood to be both similar and different and the notion of multimodality can be used to describe in a rather strict way what the many similarities and differences are. There are four modalities that underlie all conceivable media but each modality encloses several modes that vary between media. The modes of the modalities are not always easily detectable properties; rather, they are to be found on a scale from the material to the perceptual and the conceptual. Understanding the modal qualities of media is not a question of simple observation; it also includes cognition and interpretation.

The model presented for understanding intermedial relations is a bottom-up model. Instead of beginning with a small selection of established media and their interrelations, which is the usual method, it starts with the modalities and modes that are shared by all media. The relations between the four modalities and the modes that are most easy to track down are illustrated in Figure 1.

Apart from the modalities, two qualifying aspects must be considered in order to understand the notion of medium. The contextual qualifying aspect is the origin, delimitation and use of media in specific historical, cultural and social circumstances. The operational qualifying aspect is the aesthetic and communicative characteristics of media. What I propose to call basic media, are defined by the four modalities whereas qualified media are defined by the four modalities and the two qualifying aspects. All qualified media are based on one or more basic media.
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<thead>
<tr>
<th>Modality</th>
<th>What the modality is</th>
<th>The most important modes of the modality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material modality</td>
<td>The latent corporeal interface of the medium; where the senses meet the material impact</td>
<td>☐ human bodies</td>
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<td></td>
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<td>☐ not demarcated materiality</td>
</tr>
<tr>
<td>Sensorial modality</td>
<td>The physical and mental acts of perceiving the interface of the medium through the sense faculties</td>
<td>☐ seeing</td>
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<td></td>
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<td>☐ smelling</td>
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<tr>
<td>Spatiotemporal modality</td>
<td>The structuring of the sensorial perception of the material interface into experiences and conceptions of space and time</td>
<td>☐ space manifested in the material interface</td>
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<tr>
<td></td>
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<td>☐ cognitive space (always present)</td>
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<td></td>
<td>☐ virtual space</td>
</tr>
<tr>
<td></td>
<td></td>
<td>☐ time manifested in the material interface</td>
</tr>
<tr>
<td></td>
<td></td>
<td>☐ perceptual time (always present)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>☐ virtual time</td>
</tr>
<tr>
<td>Semiotic modality</td>
<td>The creation of meaning in the spatiotemporally conceived medium by way of different sorts of thinking and sign interpretation</td>
<td>☐ convention (symbolic signs)</td>
</tr>
<tr>
<td></td>
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<td>☐ resemblance (iconic signs)</td>
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<td></td>
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<td>☐ contiguity (indexical signs)</td>
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Figure 1 The modalities and modes of media

Thus, intermedial relations can be found both between basic media and between qualified media. Intermedial relations consequently include both modal relations and qualified relations founded on conventions and a range of historically changing circumstances. Furthermore, intermediality is about both basic and qualified media as such and about specific works and performances. Intermedial relations have been categorized in many intricate systems but for the purpose of this essay I find it sufficient to differentiate between two main types, each holding a variety of merging variants: on the one hand, combination and integration of media and, on the other hand, mediation and transformation of media. Depending on their modal character and to a certain extent also on their qualifying properties, media can be both rather loosely combined and intimately integrated. Media consisting of many modes are in a way ‘integrated’ in themselves.

Basic and qualified media must be understood as abstractions that need technical media to be materially realized. The material modality is the latent corporeal interface of a media type that can be realized in actual manifestations by technical media. The relation between technical media and basic media is consequently very much a question of technical media being able
to or not being able to mediate certain modes, and all technical media must be defined in relation to the range of basic media they have the capacity of mediating. When mediation involves more or less radical modal changes, it is feasible to say that it involves transformation.

Doubtless, there are other kinds of intermedial relations that have not found their way into my model but might be compatible with it. For instance, the relations between various technical media, regardless of their mediated 'content', may well be described partly in terms of modal differences. Needless to say, the many abstract examples of media characteristics and intermedial relations that I have briefly discussed have forced some rather brusque simplifications, but my point has been not so much to exactly circumscribe certain media characteristics and specific intermedial relations as to provide a model and a rudimental method for such business.

What is a medium? The confusion around this question, and the incompatibility of many of the suggested answers, is largely caused, I think, by the shifting approaches of different scholars and research traditions. Technical aspects as well as modal and qualifying aspects have been emphasized in diverse and often exclusive ways in the efforts to find narrow and hence efficiently operable definitions of the notion of medium.\textsuperscript{58} One alternative has been to lean on conceptions of media that are open-ended and mind-triggering but difficult to handle in the context of intermediality. The advantage of rather seeing a medium as a complex of interrelated facets – the technical, the modal and the qualifying aspects – is that such a notion sets certain limits while at the same time it incorporates most of the actual comprehensions of mediality.

What is multimodality? To say that a medium is multimodal if it combines, for instance, solid materiality, visuality, spatiality and iconicity, is a truism since there simply are no media that are not being realized by at least one mode of each modality. Multimodality in a more qualified sense must hence mean that a medium includes many modes within the same modality. However, all media are at least slightly multimodal as far as the spatiotemporal and the semiotic modalities are concerned, whereas some media are multimodal on the level of all four modalities. It can thus be argued that multimodality is very much about really observing and emphasizing the very common and perfectly normal multimodal characteristics of media. Certainly, multimodality is a very general phenomenon that may also be studied outside the context of media.

What is then intermediality? The many possible intermedial relations within and between media have been discussed in some detail so far and it has become clear, I think, that intermediality is a notion that cannot be understood without the notions of modality, mode and multimodality. Intermediality might be described as 'intermodal relations in media' or 'media intermultimodality'. I do not expect these terrible terms to win general praise but I think there is a point in seeing intermediality as a complex set of artificial relations between media that are always more or less multimodal.
I have hesitated to describe certain kinds of media as intermedial ‘in themselves’. Many media, if not all, are indeed multimodal ‘in themselves’, but when also considering the qualifying aspects of media, things become more complex. Media characterized by strong multimodality may be said to be intermedial in themselves in the sense that certain modal ‘borders’ are crossed. However, theatre and computer games, two examples of strongly multimodal media, are conventionally understood and rather well defined as qualified media, so in that sense they are coherent media rather than examples of pronounced intermedial crossings of conventional borders, although they may be said to fuse a multitude of qualified media that also exist in their own right: music, for instance. It is thus necessary to acknowledge that qualified media are conventionally circumscribed, but one must also realize that the circumscriptions of qualified media in themselves create complex networks of conventional media borders. All qualified media overlap, and some conventional media are totally engulfed by other conventional media. Consequently, one is actually not much helped by the notion that intermediality is the crossing of conventional media borders.

The point is that both multimodality and intermediality are to be found everywhere. One can thus say that everything is intermedial and multimodal, which is definitely true in a way, but that might come dangerously close to saying that nothing is intermedial or multimodal. Given the fact that qualified media are changing entities, I still find it most profitable to hold on to the idea that all ‘mediality’ involve ‘intermediality’. I do not believe that it is necessary or even possible to circumscribe a specific corpus of intermedial works or a set of fixed relations between media, although I find many of the scholarly systems of intermedial ‘works’ and ‘relations’ very valuable. Of course, it is essential to discuss which media, and which relations between media, might be of specific intermedial relevance, but I think it is pointless to try to establish clear borders – they are bound to be crossed. Who would, today, dream of deciding the exact delimitations of ‘art’ or even ‘visual art’ in order to fix the area of investigation for art historians? Who would want the objects of ‘popular culture’ to be narrowly defined in order to select suitable objects for, say, cultural studies to interpret? The nature of intermedial relations, as they have been described here, is thus only seemingly exact and one must realize that they can be pinned down only to a certain extent. Intermedial analysis cannot live without her twin sister intermedial interpretation. Intermediality is thus certainly about specific intermedial relations but it is also, and perhaps primarily, I would say, about studying all kinds of media with a high level of awareness of the modalities of media and the crucial modal differences and similarities of media. What makes intermedial studies important is that they offer insights into the medial nature of all media, not only a selection of peripheral media. The objects of intermedial studies may well be, for instance, media that have been categorized as ‘intermedial’ in themselves but they may also be what have been taken to be ‘normal’ media.
The outcome of the studies does not so much depend on the objects of study as on the way the studies are performed. Some studies of pattern poems or newspapers may totally lack intermedial relevance, whereas other studies of written prose texts or photographs may be bursting with intermedial aspects.

Notes

1. G. E. Lessing (1984) *Laoköön: An Essay on the Limits of Painting and Poetry*, translated, with an introduction and notes, by E. A. McCormick (Baltimore MD and London: Johns Hopkins University Press). Lessing states that the poet can treat ‘two kinds of beings and actions, visible and invisible’, whereas in painting ‘everything is visible’ (pp. 66, 76). It is certainly questionable to propose that painting cannot deal with the ‘invisible’, but what is by far the most important for Lessing is to be normative rather than descriptive: the good poet should not deal with the visible unless it is inscribed in time in the form of *action*, whereas the good painter should *not* deal with action at all, but only with visible *objects* that are not inscribed in time. Actually, he once states that ‘signs existing in space can express only objects whose wholes or parts coexist, while signs that follow one another can express only objects whose wholes or parts are consecutive’, which sounds very definite, but his conclusion deals with the ‘true subjects’ of poetry and painting (p. 78) and in the rest of the essay he constantly refers to examples of, for instance, poetry describing static objects, which is of course fully possible but not, according to Lessing, recommendable (p. 85). A philosopher such as Susanne K. Langer is much more consistent when it comes to upholding tenable borders between the arts. See S. K. Langer (1957) ‘Deceptive Analogies: Specious and Real Relationships among the Arts’, *Problems of Art: Ten Philosophical Lectures* (New York: Charles Scribner’s Sons), pp. 75–89.

2. Cf., for instance, Jörg Helbig’s recent taxonomy of intra, inter, trans and multimedial relations in J. Helbig (2008) ‘Intermedialität – eine spezifische Form des Medienkontakts oder globaler Oberbegriff? Neue Überlegungen zur Systematik intersemiotischer Beziehungen’ in J. E. Müller (ed.) *Media Encounters and Media Theories* (Münster: Nodus Publikationen). It works quite well as a very rough model and it is representative of the interart tradition where the media are very much seen as more or less separate entities. Its value is nevertheless severely reduced because of the idea that media can be understood as ‘distinct sign systems’ (p. 83) with fixed ‘medial borders’ (p. 79), each medium having its ‘medial surface’ (p. 85). Cf. also Axel Englund’s critical discussion, in this volume, of ‘topographic’ ways of defining and delimiting media.


4. Mikko Lehtonen, however, arguing eloquently for the introduction of the perspective of intermediality in cultural studies, has published an essay in a journal of media and communication studies where the notions of multimodality and intermediality are combined: M. Lehtonen (2001) ‘On No Man’s Land: Theses on Intermediality’, *Nordicom Review* 22, 71–83. Lehtonen is not aware of the research tradition of intermediality described by Clüver and hence he more or less has to invent the topic. Although he uses the notions in a different way from that proposed in this essay, the relation between multimodality and intermediality is accurately described: ‘multimodality always characterizes one medium at a time. Intermediality, again, is about the relationships between multimodal media’ (p. 75). Lehtonen is not the only one who has invented intermediality anew. See, for instance, L. M. Semali and A. W. Pailloitot (eds) (1999) *Intermediality: The Teachers’ Handbook of Critical Media Literacy* (Boulder CO and Oxford: Westview Press), where media literacy is discussed in terms of intermediality without knowledge of the existing research fields of intermediality and multimodality.

5. See S. Moser (2007) ‘Iconicity in Multimedia Performance: Laurie Anderson’s *White Lily*’ in E. Tabakowska, C. Ljungberg and O. Fischer (eds) *Insistent Images, in Iconicity in Language and Literature* 5 (Amsterdam: John Benjamins), p. 323. In another essay, S. Moser (2007) ‘Media Modes of Poetic Reception: Reading Lyrics Versus Listening to Songs’, *Poetics* 35, 277–300, the author uses the terms ‘modality’ and ‘mode’ in a perfectly comprehensible but not systematic way: ‘modalities of poetic language (print/song) and corresponding modes of reception (reading/listening)’ (p. 277); ‘Songs are a multisensorial mode of linguistic communication’ (p. 278); ‘lyrics occur in different media modalities, namely oral…printed…and audiovisual’ (p. 278) and so forth. The ‘intermedia practice’ of popular songs is said to enact and embody ‘the interplay and integration of oral, literate and audiovisual modes of linguistic communication’ (p. 283).


7. Cf. B. Granström, D. House and I. Karlsson (eds) (2002) *Multimodality in Language and Speech Systems* (Dordrecht, Boston MA and London: Kluwer Academic Publishers). In the ‘Introduction’ by the editors, it is stated that multimodality is, in essence, ‘the use of two or more of the five senses for the exchange of information’ (p. 1). In many of the essays in the same volume, however, modalities are also understood as gesture, speech, writing and so forth. In one of them, N. O. Bernsen (2002) ‘Multimodality in Language and Speech Systems: From Theory to Design Support Tool’, a *medium* is circumscribed as ‘the physical realisation of some presentation of information at the interface between human and system’, meaning in effect that media are defined by the ‘sensory modalities’ (p. 94).

for the Systemic Analysis of Multimodal Documents (Basingstoke and New York: Palgrave Macmillan), who takes modes such as text, image, diagram, the visual, the spatial and the verbal to contribute to multimodality (pp. 1, 7), although these overlapping modes are never clearly related to each other as far as semiotic, sensorial or spatiotemporal aspects are concerned.

9. In W. J. T. Mitchell (1986) Iconology: Image, Text, Ideology (Chicago and London: University of Chicago Press), his fundamental and very traditional dichotomies are text/image, verbal/pictorial and poetry/painting. This is understandable in the light of the historical tradition that he wrestles with, but these dichotomies must be overcome in order to grasp fully the similarities of media. By way of constantly reinforcing these dichotomies through the figure of paragone (the ‘battle’ of the arts), which is of course necessary to achieve the historical understanding of culturally constructed differences between poetry and painting (which seems to be Mitchell’s most important aim), he thus in a way reinstates the differences that he simultaneously deconstructs on the ahistorical level. In M. Bal (1991) Reading Rembrandt: Beyond the Word-Image Opposition (Cambridge: Cambridge University Press), the author convincingly and brilliantly demonstrates that ‘word’ and ‘image’ are interrelated and integrated in complex ways, but she continues to operate with the dichotomy ‘verbal/visual’ in spite of the modal incommensurability of the two notions (the verbal and the visual are not to be understood as media-specific characteristics, though).


11. An important early thinker who saw things more clearly than most was Moses Mendelssohn. In ‘On the Main Principles of the Fine Arts and Sciences’ [Über die Hauptgrundsätze der schönen Künste und Wissenschaften, 1757], translated by D. O. Dahlstrom, in D. O. Dahlstrom (ed.) (1997) Philosophical Writings (Cambridge: Cambridge University Press), Mendelssohn builds a typology with the aid of distinctions such as ‘natural’ versus ‘arbitrary’ signs, ‘the sense of hearing’ versus ‘the sense of sight’ and signs that are represented ‘successively’ versus ‘alongside one another’ (pp. 177–9). The typology is sketchy but instructive since Mendelssohn clearly realizes that the borders of the arts ‘often blur into one another’ (p. 181). In modern times, Wendy Steiner has provided one of the most nuanced and constructive accounts of many of the problems connected to the spatiotemporal and semiotic aspects of interart comparison where she manages to avoid most of the common pitfalls: W. Steiner (1982) The Colors of Rhetoric: Problems in the Relation between Modern Literature and Painting (Chicago and London: Chicago University Press). In W. J. T. Mitchell (1987) ‘Going Too Far with the Sister Arts’ in J. A. W. Heffeman (ed.) Space, Time, Image, Sign: Essays on Literature and the Visual Arts (New York: Peter Lang), the author discusses ‘four basic ways in which we theoretically differentiate texts from images’. Three of these ways are ‘perceptual mode (eye versus ear)’, ‘conceptual mode (space versus time)’ and ‘semiotic medium (natural versus conventional signs)’. He argues that ‘there is no essential difference between poetry and painting, no difference, that is, given for all time by the inherent natures of the media, the objects they represent or the laws of the human mind’ (pp. 2–3). Mitchell demonstrates very
well that ideological considerations often permeate much of the rhetoric concerning medial differences, and that there are important similarities, but he does not really suggest that there are no differences. Although it is important not to exaggerate the differences between media, I would say that it is fully possible ‘to give a theoretical account of these differences’ (p. 2), essential or not, which Mitchell sincerely doubts.


13. Ibid., p. 110.


15. Living creatures have photosensitive, chemosensitive, mechanosensitive, electro sensitive and thermosensitive receptors. The photoreceptors of human beings are found in the eyes, while other creatures have them in the skin. Our chemoreceptors are located in the organs of taste and smell, but also in certain blood vessels. Mechanoreceptors that register changes of position and pressure are in the organs of balance and hearing, and in the skin we also have mechanoreceptors that register touch, pressure and vibrations. Similarly, electro and thermoreceptors are located at various places in the body.

16. These sense organs do not, however, simply consist of five different kinds of receptors. Both the olfactory and the gustatory organs consist of chemoreceptors, and the skin consists of both mechanoreceptors and thermoreceptors. Moreover, the sense organs and the different kinds of receptors do not work in isolation. Strong sound, for instance, can both be heard and felt by the whole body, although human beings do not have the very sensitive external sense organ of fishes, the side line, which registers all kinds of sounds, vibrations and movements in the fish’s environment.


21. Lessing acknowledges that there are represented bodies in painting ‘which, by their position, permit us to conjure an action’: G. E. Lessing (1984) Laokoön, p. 77. He actually clearly states (which seems to be at odds with his earlier one-sided assertion concerning what ‘signs existing in space can express’) that ‘painting too can imitate actions, but only by suggestion through bodies’ (p. 78).


24. Also Wendy Steiner comes to the conclusion that space and time ‘in fact relate to three very different aspects of the work’ (1982, p. 50). Their aspects are similar but not identical to the three levels that I discern. Cf. the detailed and mostly convincing discussions in J. Levinson and P. Alperson (1991) ‘What Is a Temporal Art?’ Midwest Studies in Philosophy 16, 439–50. Levinson and Alperson, too, conclude that there are three main variants of temporality in arts.

25. For references to relevant research, see Elleström (forthcoming) ‘Iconicity as Meaning Mimic Meaning, and Meaning Mimic Form’.


27. Ibid., p. 135.

28. See Elleström (2009) ‘Iconicity as Meaning Mimic Meaning, and Meaning Mimic Form’. I am well aware of the lack of consensus, not least when it comes to the question of meaning in music, but my point is that no matter how you define the semiotic character of a qualified medium it must include semiotic differences that are at least partly media specific. Even if one does not accept the notion of musical iconicity one must admit that there is a fundamental difference between the way music and, say, literature produce meaning.


32. I refrain from trying to say exactly what ‘aesthetic and communicative characteristics’ are. Actually, any understanding of these characteristics is part of the way the operational qualifying aspect works: all changes in aesthetic conceptions, and even a denial of the point of thinking in terms of aesthetics, take part of the forming of qualified media.

33. Cf. Wolf’s definition of a medium as ‘a conventionally distinct means of communication, specified not only by particular channels (or one channel) of communication but also the use of one or more semiotic systems serving for the transmission of cultural “messages”:’ Wolf (1999) The Musicalization of Fiction, pp. 35–6.


36. The terminological problem is aggravated by the shifting use of similar words in different languages. Hajnal Király has suggested to me that ‘movie’ would be the closest denomination for the technical aspect and that ‘cinema’ most often rather refers to the sociological, institutional and cultural, that is the contextual qualifying aspect, while ‘film’ is associated with the aesthetically mature medium, determined by the operational qualifying aspect.


38. Cf. the genre discussion in Rajewsky, this volume.

39. If we were to assume, in a very simplified way, that the most important modes could be isolated, say (human bodies, other demarcated materiality and not demarcated materiality), (seeing, hearing and feeling), (space and time) and (symbols, icons and indices), and that these modes could be mixed following the principle that there must be at least one mode per modality, and that there can also be all sorts of combinations of modes within the same modality, the possible amount of combinations would be $7 \times 7 \times 3 \times 7 = 1029$. Needless to say, it would be ridiculous to speak of 1029, or more, types of basic media. We have to settle with the fact that some basic modal combinations are commonly distinguishable at a certain time and that the future may hold new conventions and technical solutions that make novel basic media discernible, such as a basic
medium consisting of, say, not demarcated materiality that can be both seen and felt, that is perceived as both a spatial extension and a temporal flow producing mainly iconic meaning. Assuming that a technical medium capable of mediating such a basic medium were invented, one may expect that a range of qualified media soon would be developed forming aesthetic and communicative conventions and eventually giving rise to more or less demarcated genres and subgenres.

40. "Intermediality" can therefore be defined as a particular relation (a relation that is "intermedial" in the narrow sense) between conventionally distinct media of expression or communication: Wolf (1999) The Musicalization of Fiction, p. 37. See also C. Ijungberg, this volume.

41. A similar conclusion is drawn by Irina Rajewsky in her essay in this volume.

42. Cf. Hans Lund’s heuristic distinction between three kinds of word–picture relations: combination, integration and transformation, in H. Lund (1992) Text as Picture: Studies in the Literary Transformation of Pictures, translated by Kacke Götrick (Lewiston NY, Queenston Ontario and Lampeter UK: Edwin Mellen Press), pp. 5–9. Instead of combination and integration, Claus Clüver distinguishes between multimedia texts (separable texts), mixed-media texts (weakly integrated texts) and intermedia texts (fully integrated texts): Clüver (2007) ‘Intermediality and Interarts Studies’, p. 19. Wolf’s distinction between ‘overt’ and ‘covert’ intermediality partly corresponds to my distinction between combination and integration of media and mediation and transformation of media. However, I find it deeply problematic to state that an artefact of ‘overt’ intermediality is distinguished by qualities that are ‘immediately discernible on its surface’ and by way of limiting ‘overt’ intermediality to cases where ‘the signifiers of two media are apparent and distinct’ the category becomes very narrow: Wolf (1999) The Musicalization of Fiction, pp. 40, 50. What is, actually, the surface of a multimodal medium, and what does it mean to say that the signifiers of a medium are apparent? Only when it comes to technical media, actual physical objects or phenomena, is it possible to talk about overt or direct co-presence of media, and since most qualified media are mediated by various and also altering technical media the distinctions overt–covert and direct–indirect have limited value when it comes to qualified media.


44. Also, a simple juxtaposition involves some kind of integration. If an image and a visual text are combined, for instance, it matters which one of them is above or to the left of the other.


46. In his later writings, Mitchell’s notion of mixed media becomes more articulated. In Mitchell (2005) ‘There are no Visual Media’, he also straightforwardly acknowledges the differences between media and states that, ‘If all media are mixed media, they are not all mixed in the same way, with the same proportions of elements’ (p. 260). This is a very important step towards the possibility
of creating ‘a more nuanced taxonomy of media based in sensory and semiotic ratios’ (p. 264). However, the relation between the sensorial and the semiotic modalities (in my terminology) is not always apparent in Mitchell’s account. He argues that ‘Subtitles, intertitles, spoken and musical accompaniment made “silent” film anything but silent’ (p. 258), but to me it is not obvious in which way subtitles and intertitles break the silence. Although one may take account of the perceiver’s subvocalization, the basic difference between silent film and sound film remains clear, if not unambiguous. His assertion that photography is so riddled with language ‘that it is hard to imagine what it would mean to call it a purely visual medium’ (p. 260) implies that a particular kind of mainly symbolic semiosis affects the sensorial perception, which is obviously not the case. Symbolic language that can be directly seen on or otherwise deduced from the screen or surface of moving or static images still has its origin in the visual (and has effect only on our photoreceptors), although it is not iconic, in the semiotic sense of the term – but the modes of the semiotic modality are something other than the modes of the sensorial modality. In spite of its conventional signs, neither silent film nor photography can be heard, smelled or tasted – they can only be seen and, in a rudimentary way felt, but that has hardly any bearing on the aspects of texts and language. Mitchell’s important main point is, it seems, to emphasize the blurring of modal borders in the perception of media, but I think one must also emphasize those borders that do exist in spite of the perceptual and cognitive operations of the recipients.


48. As I define the notion of technical medium, it is narrower than, for instance, the notion of ‘physical media’ as circumscribed in C. Clüver (2007) ‘Intermediality and Interarts Studies’, p. 30. Devices used for the realization of media, but not tools used only for the production or storage of media, are technical media. The brush and the typewriter are tools of production that are separated from the material manifestations of media and cannot be seen as technical media according to my definition, although they count as physical media in Clüver’s sense. Oil on canvas and ink on paper, however, are technical media. The flute and the video camera are partly tools for production and partly devices for the realization of media and can hence also be seen as technical media. Some technical media, such as ink on paper, both store and display basic and qualified media, whereas a computer hard disk, a device for storage only, is not a technical medium in the sense that is emphasized here.

49. See Rajewsky, this volume.

50. In other contexts, of course, it is vital to consider not only the display but also the production and storage of basic and qualified media. When discussing qualified media such as art forms, for instance, many distinctive features that can be seen as operational qualifying aspects are connected to the production and storage of media. Traditional live theatre is produced and displayed by a range of technical media, the bodies of the actors being the most important, but it should not, and actually it cannot, be stored. A filmed theatre performance can be stored, but what is being stored is, as a matter of fact, not the performance, but a transformed version with very different modal and qualified qualities. A painting, on the other hand, is not produced by, for instance, oil paint and canvas, but the paint and canvas both store and display the painting. A motion picture is stored by technical
equipment that is connected to and yet distinct from the screen that displays a copy of the film.


53. The lack of distinction between various forms of ‘representation’, ‘remediation’ and simply ‘similarity’ is perhaps the major obstacle in Bolter and Grusin (1999) Remediation. It is a very inspiring book, full of interesting observations relevant for intermedial studies, but the authors’ notions of media and remediation are conspicuously vague. In their view, a ‘medium’ seems to be both all kinds of modalities, as understood in the tradition of Kress and van Leeuwen, and all kinds of media as (not) defined by McLuhan. According to Bolter and Grusin, all sorts of media can mediate all sorts of media, whether they are technical, qualified or something else: ‘our identity’ can be mediated by the internet (p. 231), ‘the fatal stillness of Antonioni’s films’ can be remediated by a computer game (p. 268) and ‘the printed book’ is remediated by hypertext (p. 272). Altogether, their account gives a good view of the complexity of media relations, but no theoretical tools to deal with it. Cf. J. Schröter (2008) ‘Das ur-intermediale Netzwerk und die (Neu-)Erfindung des Mediums im (digitalen) Modernismus: Ein Versuch’ in J. Pae and J. Schröter (eds) Intermedialität Analog/Digital: Theorien – Methoden – Analysen (Munich: Wilhelm Fink), pp. 579–601, whose notion of ‘Transformational-ontologische Intermedialität’ is severely limited by its close association to the notion of representation (pp. 589–90).


55. Yvonne Spielmann discusses several ways of understanding intermedial transformation in Y. Spielmann (1998) Intermedialität: Das System Peter Greenaway (Munich: Wilhelm Fink). However, her main arguments are based on notions and distinctions that I find problematic for reasons declared earlier in this essay: ‘textuality’ versus ‘visuality’ and ‘monomediaity’ versus ‘multimediaity’ versus ‘intermediaity’.


57. The term ‘media circuit’ is telling. It is used in M. P. Punzi (ed.) (2007) Literary Intermediality: The Transit of Literature through the Media Circuit (Bern: Peter Lang), where ‘intermediality’ mainly refers to the phenomenon here characterized as the transformation of media. Cf. the way the notion of irony is transformed in the discourses on various arts, as described in L. Elleström (2002) Divine Madness, or the way narration can be understood in the context of different media; Marie-Laure Ryan talks about ‘transmedial narratology’ in M.-L. Ryan (2004) ‘Introduction’ in M.-L. Ryan (ed.) Narrative Across Media: The Languages of Storytelling (Lincoln and London: University of Nebraska Press), p. 35. The transmedial notions of complexity, integration and rhythm are discussed as examples...
of ‘inter-medial factors’ in T. M. Greene (1940) *The Arts and the Art of Criticism* (Princeton: Princeton University Press), pp. 213–26. Ultimately, also notions such as reception and interpretation are transmedial, of course, and it is vital to recognize that interpretive strategies, contextualizations and ways to communicate the outcome of interpretation cross all media borders. This is a crucial point in Bal (1991) *Reading Rembrandt*.


60. This is very much stressed by Jürgen Bruhn in his contribution in this volume.