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Perceiving Media Change as a Form of Media Literacy: Using a 360-Degree Video to Analyze the Mediatization of Social Life

Abstract. This study focuses on the subjective perception of complex mediatization processes. To encourage the study participants to reflect on everyday media practices, a self-produced, interactive 360-degree video was used as a qualitative stimulus to make typical after-work encounters tangible before these were discussed in a group setting. Based on a qualitative evaluation, a total of 20 perceptions illustrate how people perceive media change primarily in communicative actions that are characterized by a change in empathy, which we refer to as communicative avoidance or communicative attention. By applying several dimensions of media literacy, we can conclude that communication actions are perceived from a cognitive, affective, social, and critical-reflective perspective, meaning that people can reflect, justify, and react to communicative actions or draw results from them. It shows that some aspects of media change are more apparent than others and that the level of media literacy determines the extent to which people can perceive mediatization processes.

Keywords: 360-degree video; attention; avoidance; media change; media literacy

Introduction

Virtual reality (VR) has the potential to radically change our communicative behavior and social relationships (Wimmer, 2020). Various positions can be identified in the public discourse: While Director Milk (2015) describes VR as the "ultimate

empathy machine" in a TED Talk and emphasizes its potential for communicative attention, philosophers Madary and Metzinger (2016) warn of the dangers of communicative detachment and the neglect of personal environment. The discourse reflects a fundamental question of communication and media studies, which is concerned with how established or new communication media inscribe themselves into our everyday lives and how this process changes our communicative actions (Krotz, 2017a). To answer this issue, it makes little sense to consider the phenomena in isolation; instead, it ought to be viewed as the provisional end point of a media transformation that is already underway in the context of everyday lives (*ibid.*).

This study focuses on the subjective perception of media change. To encourage the study participants to reflect on everyday media practices, a self-produced, interactive 360-degree video was used as a qualitative stimulus to make typical after-work encounters tangible before these were discussed in a group setting. Based on a qualitative evaluation, a total of 20 perceptions were identified that illustrate how people reflect on and deal with changes in communicative behavior and its implications. We first outline the central assumptions of mediatization research and show the extent to which the perception of media change can be analyzed as part of comprehensive media literacy (section 2). Building on our qualitative group discussion (section 3) the specific results are presented (section 4) and discussed (section 5).

Theoretical background

Perception of media change as a change in communicative action

At the heart of mediatization research is the question of the extent to which "spaces of experiences" transform situationally and structurally through media, as well as the extent to which this is related to a fundamental change in society (Krotz, 2017a, p. 10). While research initially focused more on the institutional aspect of this change (e.g. the notion of a "media logic" by Altheide & Snow, 1979), it is now considered to be more of an individual transformation process that takes place primarily on a subjective level in people's everyday lives (Krotz, 2017a; Hepp, 2019). Against this background, Krotz argues that media change should be reconstructed from the micro-perspective of individuals, because "[t]hey experience media change as a change in communicative action that is increasingly media-mediated and media-related – and thus in particular as a change in social relationships" (2015, p. 441, own translation).

Media change thus manifests in people's everyday lives as a change in their "willingness" and "ability" to engage with the (non)verbal communicative actions of their fellow human beings (Krotz, 2017b, p. 30). In the process, "forms of communication (...) are increasingly emerging for whose use empathy and in-depth reflection are

secondary" (*ibid*., p. 32 f., own translation). Although Krotz primarily refershere to communication with "computer-generated avatars" such as chatbots, it is debatable to what extent other digital and analog forms and situations of communication, in which empathic and reflective interaction with fellow human beings is becoming increasingly secondary, may also be affected. This question is vehemently reflected in the discussion surrounding VR, which some researchers refer to as an "empathy machine" and others as an "isolation machine":

> On the one hand, virtual realities can contribute to overcoming social isolation and stimulate social interaction – for example, by improving the way people contact friends, families, or acquaintances. On the other hand, they can also create a parallel world and consequently lead so social isolation and alienation. (Wimmer, 2020, p. 137)

Perception of media change as a form of media literacy

To what extent are people able to perceive media change? To answer this question, it is worth looking at the concepts that describe skills in dealing with media and are commonly summarized as "media literacy" (Tulodziecki & Grafe, 2019). While traditional concepts of media literacy (e.g. Baacke, 1996) help to classify knowledge about static media such as newspapers, television, and radio, they sometimes reach their limits when it comes to capturing dynamic and interactive media such as smartphones or social media and the increasing mediatization of our everyday. This could be exemplified by the communicative phenomenon of "phubbing", which describes the inappropriate use of a smartphone in social situations (Al-Saggaf & O'Donnell, 2019). While such neglect of the communication partner can be justified based on the dimension of "media criticism", further questions arise from the perspective of communication science that traditional concepts of media literacy are unable to answer: How does the neglected person feel during phubbing? What is his/her relationship to the neglector? In what situational or social context does phubbing occur and to which other factors can it be attributed?

The criticism of traditional media literacy concepts can thus be summarized as a lack of contextuality, specifically as a lack of reference to everyday life, communicative actions, and the emotional world of media users, which is essential for the perception of media change. In contrast, the "framework concept of media literacy" (Berg et al., 2023) offers the possibility of an everyday and subject-related approach to capture the perception of media change from the micro-perspective of users. A distinction is made between six "literacy dimensions", which are based on the principles of media literacy according to Baacke (1996) and each of which is expanded to include a subject-oriented perspective:

– "instrumental-qualificatory dimension" – skills related to motor activity and problem-solving use of media,

- "cognitive dimension" – skills for intellectual engagement with media use as well as an awareness of selection, understanding and evaluation of media content,
- "affective dimension" – skills for mood regulation through media use and asks the question of whether users can process the emotions they experience with media,
- "creative dimension" – skills for self-determined, independent (re)design of digital media and systems, or the (re)programming of digital technologies,
- "social dimension" – skills for collaboration, participation and for digital communication between people and in groups, and
- "critical-reflective dimension" – skills for ethical engagement with media content and an awareness of the extent to which media have an impact on the individual (reflexive) and on society (critical).

In addition, Berg et al. (2023) set out some premises as to what constitutes media literacy at its core. These premises relate to the basic assumptions of the mediatization approach (Krotz, 2017b) and illustrate why this concept is also suited to the analysis of perceived media change: Media literacy is subject- and action-related, it comprises a bundle of skills and abilities and it cannot be thought of without considering the lifeworld context of individuals. The perception of media change can therefore be regarded as a form of media literacy that is based on *instrumental-action-oriented*, *cognitive*, *affective*, *creative*, *social*, and *critical-reflective* skills. This leads us to the following research question: "How do people perceive media change as a change in communicative action and to what extent can this perception be attributed to their media literacy?"

Capturing the perception of media change methodically

360-degree videos to reflect on implicit forms of media literacy

In answering this research question, we are faced with the methodological challenge that changes in communicative action often take place gradually and are not immediately apparent. In most cases, people only become aware of the extent when compared to the past due to certain lifeworld upheavals (Krotz, 2017a). This can be, for example, a formative experience in which people became particularly aware of their communicative actions or the observation of family members, friends, or acquaintances whose behavior has changed because of media. 360-degree videos are suitable for a qualitative stimulus, as they offer the opportunity to depict everyday life in a situational way and give users the freedom to focus their attention on different aspects of the visual representation (Huang et al., 2023). For example, the 360-degree short video *Merger* by Japanese video artist Keiichi Matsuda addresses the mediatization of our everyday working lives, in which direct, interpersonal

relationships are becoming increasingly less important as communication with customers or colleagues increasingly takes place via AI-controlled media technologies (Matsuda, 2019). In direct comparison with 2D videos with identical content, 360-degree videos promote the perceptual and emotional receptiveness of users, mainly because of the higher degree of immersion (Feng, 2018). As part of the research project KodiLL,[1] which investigates the use of digital teaching and learning scenarios to develop skills in university teaching, we decided to produce a 360-degree video ourselves. The aim is not to impart knowledge about media change, but to portray situations that encourage people to reflect on their own communicative actions. The 360-degree video was therefore not intended to promote media literacy, but to reflect on it.

In the video *Realization*, which is freely available on YouTube,[2] a similar situation is shown in three scenarios in which a social relationship changes fundamentally due to media practices. To encourage viewers to reflect on their own experiences with such encounters, extreme examples were deliberately presented in which the different willingness and ability to process emotions becomes clear. Professional actors embody the flat mates "Anna" (A), who spends her evening on the couch when her flat mate "Bianca" (B) returns to home from work stressed out and sits down next to her in search of comfort (see Table 1).

Table 1. Representation of three scenarios in the 360-degree video *Realization*

Scenario 1 (S1)	A reads a magazine article about garbage collectors in India, which hardly affects her emotionally. When B sits down next to her, A immediately recognizes that B is looking for comfort, puts the magazine down and tries to cheer B up by playing cards together.
Scenario 2 (S2)	A watches a documentary about garbage collectors in India, which gives her some emotional support. When B sits down next to her, A does not realize that B is looking for comfort and does not ask. B first watches the documentary, but then turns to the social media on her smartphone to cheer herself up.
Scenario 3 (S3)	A wears VR goggles and watches a 360-degree documentary about garbage collectors in India, while her field of vision is transmitted to the TV. A therefore does not realize that B is sitting next to her and is very startled when she speaks to her. B apologizes and agrees to watch the 360-degree documentary on TV. However, she soon turns back to social media on her smartphone to cheer herself up, but A doesn't notice.

Source: Authors' own study.

[1] https://www.uni-augsburg.de/en/forschung/projekte/kodill/

[2] https://www.youtube.com/channel/UCA2GLr8GKq0TXqY_0lTVZZw

Focus groups to articulate the perception of media change

To capture the perception of media change, we chose an explorative survey method that allowed us to embed relevant stimuli and encourage our participants to discuss their own actions in comparable situations together. Focus groups have become established for such methodological requirements (Cyr, 2019). These are qualitative group discussions in which people discuss a topic of focus and form an overarching group opinion through mutual reference (Smithson, 2000). A distinction is made between "natural" (already know each other) and "artificial" groups (have never met), as well as between homogeneous and heterogeneous groups (*ibid*., pp. 105 ff.). To enable as many different perspectives as possible on the situational change in communicative behavior, we opted for artificial, heterogeneous focus groups. We chose a total of 16 students from the University of Augsburg aged between 18 and 29 as the study group, basing this choice on two assumptions: Firstly, young people are more affected by media change than older people, as they are still in a phase of self-discovery and are in the process of building a stable network of friends through communicative actions (Hepp et al., 2018). Secondly, we assume that people with a higher level of education (e.g. A-levels) are more likely to be able to reflect on and articulate communicative actions as part of their media literacy than those with a lower level of education.

When recruiting, we followed a theoretical sampling, whereby we paid attention to a heterogeneous composition of the focus groups in terms of age, gender, and field of study. Their living arrangements were also of particular interest, as whether someone lives alone, with a partner or with flat mates has a decisive influence on their communicative actions in everyday life (see Appendix, Table 10). We attribute the somewhat unbalanced gender ratio (eleven female, five male study participants) to a higher interest in technology among female students, as the study was advertised as a "VR" or "360-degree video study".

First, the background of the study and how to operate the VR glasses was explained to the four-person groups. Then, all three scenarios of the video *Realization* were shown to them in one go. The participants were then asked to talk freely about what they particularly noticed during the video and whether they had ever experienced similar situations themselves. During this open narrative round, the interviewer held back with questions and defined three focus topics together with the participants, which were then discussed in detail. These were personal experiences that illustrated the extent to which the participants perceive changes of communicative action. The title of these focus topics was determined together with the participants to ensure a uniform understanding, e.g. "declining ability to concentrate because of social media" or "shared media use as a favor". The video portrayals thus served as food for thought. It was important to differentiate between statements referring to the video content (→*representational level*) and to lifeworld experiences (→*experience level*),

which is the actual focus of our study. It was striking that many participants first described the change in communicative action at the representational level (e.g. "declining attention due to social media") and then went on to talk about comparable experiences from their own lives. If the transition from the *representational level* to the *experience level* was not initiated by the participants themselves, the interviewer tried to ask questions accordingly and steer the group discussion in this direction.

After each group discussion, the statements were transcribed and evaluated qualitatively according to Mayring (2019) until a theoretical saturation emerged. Individual perceptions were derived both deductively, based on the six dimensions of media literacy (Berg et al., 2023), and inductively, based on the interview material. For example, interviewees described the implications of phubbing on the cognitive, affective, social, and critical-reflective dimensions of media literacy, but not on the instrumental-action-oriented or creative dimension. The neglect of these two dimensions continues in all our results, which suggests that media change is perceived primarily in intellectual, emotional, interpersonal, and ethical terms.

Results

Our group discussions show that people can perceive media change primarily in communicative actions that are characterized by a change in empathy (Krotz, 2017b, pp. 32 f.), which we refer to as *communicative avoidance* or *communicative attention*.

Perception of communicative avoidance

Cognitive dimension: Reflecting communicative avoidance

Our participants perceived three manifestations of *communicative avoidance* and reflected on situations in which either they themselves or others turned away from each other through media use: In their thoughts (mental avoidance), in their feelings (emotional avoidance) or in their perception (sensory avoidance). Reflection on these manifestations took place both at the *representational level* (see Table 2) and at the *experience level*.

Mental avoidance through print media at experience level

Some reflected on mentally engaging with a topic by reading print media, but still being aware of their surroundings and accessible to the feelings of others. Thus, when reading, one is only mentally "fixated" (P10, f, 23) and can still recognize "out of the corner of one's eye what the other person's posture and gestures are like", e.g. whether they are "sitting there sadly" or not (P14, f, 25).

Table 2. Reflecting communicative avoidance at representational level

Perception of media change as communicative avoidance at representational level		
Reflecting mental avoidance through print media	S1	Through the magazine, A turns away from B mentally, but not emotionally or sensorially. She is only mentally absorbed and capable of perceiving B's dejection and reacting to it empathically (P6, f, 20).
Reflecting mental and emotional avoidance through audiovisual media	S2	As a result of the TV documentary, A turns away from B mentally and emotionally, but not sensorially. She is mentally absorbed and able to perceive B's dejection, but not to react to it empathically (P12, m, 24).
Reflecting mental, emotional, and sensory avoidance through VR	S3	The VR documentation causes A to turn away from B mentally, emotionally, and sensorially. She is mentally absorbed and neither able to perceive B's depression nor to react empathically to it (P7, f, 21).

Source: Authors' own study.

Mental and emotional avoidance through audiovisual media at experience level

In contrast, when using audiovisual media, people may be aware of their surroundings, but are no longer open to the feelings of others. For example, T7 reflected that her boyfriend is "not really there" both mentally and emotionally when she tries to talk to him while he is watching videos on his laptop (f, 21). Others recognize a similar avoidance in social media use during face-to-face conversations (P12, m, 24). For example, T13 describes a conversation with her friend as "a total conversation into the void" when she was "pouring her heart out" and her friend started recording Snapchat videos of herself (f, 25). Although her friend looked up from her smartphone from time to time, she was both mentally and emotionally absent (*ibid.*).

Mental, emotional, and sensory avoidance through VR at experience level

P9 noticed avoidance through VR when her friend stopped talking to her while trying out a new VR game together and, at some point, completely ignored her. She sees the cause of this avoidance in the sensory appropriation of the "field of vision" and the "soundtrack", which in turn resulted in the appropriation of her friend's "emotional field of attention" (f, 23). It is striking that some participants in their reflections equate the sensory distraction caused by VR with noise-canceling headphones (P10, f, 23), whereby not the visual, but the auditory "channel" is completely "sealed off" (P8, f, 22).

Affective dimension: Justifying communicative avoidance

Our participants also pointed out two substantiations that people use to try to justify their mental, emotional and/or sensory avoidance. They perceived these justi-

fications both at *representational level* (Table 3) and at *experience level*. They are based for the most part on the desire to influence or trigger a certain emotional response. Thus, they either try to maintain a mood (self-determination and continuity) or to interrupt or change it (escapism and disruption).

Table 3. Justifying communicative avoidance at representational level

Perception of media change as communicative avoidance at representational level		
Justifying avoidance through desire for self-determination and continuity	S2 & S3	A would like to make good use of her leisure time and find out more about waste pickers in India by watching a documentary. She therefore has an interest in maintaining her emotional state (P2, m, 21).
Justifying avoidance through desire for escapism and disruption	S2 & S3	B wants to escape her own depression and not watch a "depressing" documentary. She therefore has an interest in breaking through her emotional state by turning away through social media (P8, f, 22).

Source: Authors' own study.

Desire for self-determination and continuity at experience level

Many consider the desire for self-determination and continuity to be a justification for turning away from their fellow human beings in terms of communication:

> I personally know this well: If you've been watching or playing something for an hour, you're so into it that you don't want to suddenly stop. So, I'm playing [a computer game], I don't know when the other person is coming home, and then suddenly the door opens, and I'm supposed to press pause and stop and listen? (P6, f, 20)

P15 (f, 26) sometimes even feels "aversion" towards people who interrupt their television viewing and impair their desired emotional state. At the same time, interviewees recognize gradations in their desire to determine a situation or emotional state through media: Weakly when reading, moderately when watching television and strongly when playing on a computer or VR games (P10, f, 23; P8, f, 22). P9 (f, 23) recognizes this desire as the reason why she turned away from her friend when playing VR games, who simply "did her thing" and at some point, completely ignored her.

Desire for escapism and disruption at experience level

On the other hand, there is the justification of wanting to escape from a situation with the help of media or to interrupt or change a certain emotional state. This emotional "escape reaction" could also be observed in some people themselves (P4, m, 30),

as people "much prefer to be distracted [by media] when they are frustrated instead of thinking about what went wrong that day" (P6, f, 20). As a result, people become "abusive towards their own feelings" (P4, m, 30) and have the "need" to change an "unpleasant emotional state" (P3, m, 23). In contrast to face-to-face conversations, communicative avoidance through social media is "the easier way (...) because I don't have to adapt as much or respond to things from the other person. I just need my cell phone, find a funny short video and then I don't even think about what made me so sad" (*ibid.*).

Another justification for emotional escapism and disruption is described by P13, who often checks the time on his cell phone when he feels "insecure" in social situations: "It's just an automatic reaction, not because I want to be unfriendly, but because I sometimes want to escape from an unpleasant situation by briefly looking at my cell phone" (P13, f, 25).

Social dimension: Reacting to communicative avoidance

Four general reactions can be identified through which people attempt to respond to mental, emotional and/or sensory avoidance by the media: Resisting or interrupting their own avoidance or countering or breaking avoidance of others. It is noticeable that these practices were perceived less at the *content level* and more at the *experience level*. This suggests that the *social dimension* of media change is more evident in the eyes of our participants than the *cognitive* and *affective dimension*.

Table 4. Reacting to communicative avoidance at representational and experience level

Perception of media change as communicative avoidance at representational level		
Reacting to avoidance of others: Countering	S2 & S3	B tried to counter A's avoidance by turning away via social media (P12, m, 24).
… at the experience level		
Reacting to avoidance of others: Breaking through		One could try to break through someone else's avoidance by addressing her directly (P9, f, 23).
Reacting to one's own avoidance: Resisting		One could try to resist the avoidance through the media and cheer B up before she turned away (P14, f, 25).
Reacting to one's own avoidance: Interrupting:		One could try to interrupt the avoidance through media as soon as one has the "desire for attention" (P8, f, 22).

Source: Authors' own study.

Countering the avoidance of others at experience level

There are strategies for reacting to or countering the avoidance of others, e.g. by communicatively turning away from them (P12, m, 24). For example, P9's mother

would leave the room after a while if her daughter was engrossed in a book and did not respond to her requests for attention (f, 23). P9 later used the same tactic to deal with her friend with the VR glasses when she increasingly ignored her: "And then I said: »OK, I'll leave you alone now«" (*ibid.*).

Phubbing could be countered, for example, by becoming "quieter and quieter" in a personal conversation and at some point, stopping talking completely (P14, f, 25) – like a lecturer using this technique to demand the attention of chattering students. P13 also used a similar reaction of silence to point out to her friend that she was being turned away in favor of the smartphone when she was about to "pour her heart out" to her: "I keep quiet. (laughs) So I have more of a silent aggression, I don't talk to her about it directly" (P13, f, 25).

Breaking through the avoidance of others at experience level

Considering situational circumstances, as well as their personal relationship with others, the least intrusive strategy is to "initiate a conversation" to "disturb people in their media consumption" (P9, f, 23). It is somewhat more intrusive to directly address other people about their avoidance, e.g. by verbally asking your partner to take off their NC (P8, f, 22) or to put their cell phone away (P12, m, 24). The most intrusive way is to switch off the other person's media or physical interaction (P13, f, 25). For example, T8 sometimes resorts to extreme means to get her partner to take off his NC: "So throwing pens works quite well (laughs) and the noise canceling doesn't react well to whistling either, so it doesn't filter it out well" (f, 22).

Resisting one's own avoidance at experience level

One possible defensive reaction, which primarily relates to phubbing, is to try to resist looking at the smartphone "out of politeness and respect for the other person", for example by ignoring push notifications or "not reacting to everything immediately" (P14, f, 25). For T14, ignoring the smartphone in a personal conversation is just as much a "rule" of good behavior as eye contact or listening to each other (f, 25).

In their attempt to resist or delay phubbing, some develop unusual strategies to deceive those around them about their own communicative avoidance. For example, T13 only ever picks up her smartphone while watching a series with her boyfriend when he turns away and she is out of his field of vision for a few seconds (f, 25).

Interrupting one's own avoidance at experience level

Our participants also try to interrupt their own avoidance as soon as they are approached by others. They identify short-term and long-term interruptions which,

according to T8, enable them to react more or less "sensitively to other people's requests for attention" (f, 22). For example, turning away from print media can be interrupted in the short term by "just briefly putting a bookmark [in the book]" or in the long term by "actively putting the book away" and devoting one's full attention to others (P12, m, 24). This is comparable to audiovisual media: "If I'm watching TV, someone comes in and I switch it to silent, then it's like: »I'm actually watching this right now, but what's up?« And switching it off would just be: »You have my full attention«. And it's similar with mobile phones: Just look up or lock it and put them away" (P8, f, 22).

Critical-reflective dimension: Results of communicative avoidance

From a *critical-reflective dimension* the participants identified short-, medium- and long-term consequences for social relationships and society, which they perceived exclusively at lifeworld's *experience level* and not at *representational level* (Table 5).

Table 5. Results of communicative avoidance at experience level

Perception of media change as communicative avoidance at experience level	
Results of avoidance: Asynchronous emotions	Through TV or social media there is "no more synchronization between feelings" in the short term, which leads to "asynchronous emotional worlds" (P3, m, 23).
Results of avoidance: Declining ability to concentrate	In the medium term, being distracted by TV or social media will reduce the "ability to concentrate" in face-to-face conversations (P14, f, 25).
Results of avoidance: Isolation and alienation	Turning away through TV or social media leads to a long-term "loss of empathy" (P4, m, 30) or a "social isolation" (P8, f, 22).

Source: Authors' own study.

Asynchronous emotions at experience level

The participants see a short-term result in the divergence of feelings, which some describe as "asynchronous emotional worlds" (P3, m, 23). According to P4, the emergence of asynchronous emotional worlds results in the switching off so-called "mirror neurons", the nerve cells that ensure "that we as social beings always try to understand people" and act empathetically (*ibid.*). Emotional distancing through media means that "I no longer have to make an effort to understand the other person" and "no longer have to share their feelings", even if they are in the same room: "Normally, you have no choice but to do this [and respond to the feelings of others]. And now you do. You have the alternative of simply escaping into a different emotional world [through media], switching off mirror neurons and then you're out" (*ibid.*).

Declining ability to concentrate at experience level

They recognize a medium-term result in the declining "ability to concentrate" in face-to-face communication (P14, f, 25). They attribute this to the constant distraction caused by push notifications on smartphones and the influence of "short-format [social media] videos", resulting in an "ever-decreasing attention span, especially among Generation Y" (P4, m, 30). As a result, "a lot of interaction is lost", especially in face-to-face conversations (P3, m, 23), which means that "the youth of today" are "no longer capable" of talking to each other for more than 30 seconds (P15, f, 26). At the same time, they recognize a "certain superficiality" of interpersonal conversations, as "time is somehow short because the mobile phone is ringing again and the next chat wants to be read" (P14, f, 25). As a result, it is increasingly difficult to "delve deeper" into a topic in a face-to-face conversation, as it is repeatedly interrupted by the smartphone and therefore remains meaningless (*ibid.*).

Isolation and alienation at experience level

One long-term result is interpersonal isolation and alienation. Thus, communicative distance leads "on the one hand to individualism, on the other hand, somehow also to loneliness" (P2, m, 21), as "closeness, i.e. the real presence of people, gives us something else than the media can give us" (P7, f, 21). This closeness is gradually lost through the media (P4, m, 30). Paradoxically, it is social media use that makes people "more and more isolated" in their interpersonal interactions (P7, f, 21). For example, the distancing caused by social media in the private sphere means that flat mates and/or couples are "much more inactive and interact less with each other, but just sit next to each other and everyone watches their videos" (P7, f, 21). In the family, too, social media appropriation leads to an "ever greater distance" and, above all, parents and children drifting "into different spheres" in the long term (P4, m, 30).

Perception of communicative attention

Cognitive dimension: Reflecting communicative attention

Our participants recognize two manifestations of *communicative attention* at *representational* (see Table 6) and *experience level*. They identified "different degrees of activity and passivity" (P14, f, 25), which they recognize in the attention provided by TV and social media and which could be described as active and passive attention.

Table 6. Reflecting communicative attention at representational level

Perception of media change as communicative attention at representational level		
Reflecting active and passive attention through TV-usage	S2	A asks B whether she would like to watch the TV documentary she has selected, although she "ultimately doesn't care" [= passive attention] (P12, m, 24). With active attention, on the other hand, TV content would be selected and commented on together (P4, m, 30).
Reflecting active and passive attention through social media usage	S2	B initially just scrolls through her friend's social media posts without liking or commenting on them [= passive attention] (P14, f, 25). Only when she writes a WhatsApp to a friend does she take on an "active role" (P10, f, 23).

Source: Authors' own study.

Active and passive attention through TV-usage at experience level

On the one hand, active attention is characterized by a joint selection of TV content (P9, f, 23), passive attention tends to tolerate other people watching pre-selected TV content. On the other hand, there is the active invitation to spend an evening watching TV together, which is partly comparable to "gathering around the campfire like we used to" (P4, m, 30). As an example, T12 describes the evening watching a series together with his partner, in which they "consciously take time for each other" to spend the evening together: "So it's also an invitation again: Do you want to continue watching the series we're watching with me?" (P12, m, 24). T9 recognizes another example in a kind of ritual or "date" with her flat mate, in which they regularly cook together and watch old episodes of the TV show *Germany's Next Topmodel* (P9, f, 23).

Active and passive attention through social media usage at experience level

For example, when "scrolling through" feeds, the attention is more "passive and you become active again when taking photos" or commenting, "because communication between two parties" is created again (*ibid.*). Especially during the coronavirus pandemic, the "active" and "passive" attention through social media was a good way of "communicating their frustration" and seeking emotional closeness with their fellow human beings (P10, f, 23). Two participants emphasize the "importance" of sending GIFs and Memes filters as a form of "communication" to make each other laugh and create a "bond"(P14, f, 25, T1, f, 20).

At the same time, they emphasize the feeling of disappointment when "no one responds" to the active attention through social media and you "have to go back to the passive role for better or worse" (P14, f, 25), which apparently brings less fulfilment. T14 compares this fulfilment with an "active role" in a video conference, in which she "takes much more away" through active participation than if she only passively listens to the conversation (*ibid.*).

Affective dimension: Justifying communicative attention

The justifications for active or passive attention are primarily emotional, which our participants perceive both on a *representational level* (Table 7) and on an *experience level*. Active attention is justified more by a desire for connection and affection, while the cause of passive attention is seen more as a favor towards and appreciation of one's fellow human beings.

Table 7. Justifying communicative attention at representational level

Perception of media chance as communicative attention at representational level		
Justifying attention through the desire for connection and affection	S2 & S3	By actively showing attention through social media, B wants to express a "shared moment" and the connection and affection for her friend (P14, f, 25).
Justifying attention through the desire for favor and appreciation	S2 & S3	Through passive attention, A wants to "let B participate" in the TV documentary (P12, m, 24) and do her a favor (P9, f, 23), although she does not involve her in the selection of the documentary.

Source: Authors' own study.

Desire for connection and affection at experience level

Some recognized the need to "actively spend time together" and "exchange ideas" about the TV content when watching TV with their partner (P13, f, 25). In contrast to passive attention, the "communicative aspect (...) again creates a certain connection and this strengthening effect" (P12, m, 24), which is not given by simply tolerating the TV partner. This connection is so strong that T13 does not want to "do anything else" or "leave the room" during this time for fear that they will "distance [themselves] from each other" (f, 25). P8 also associates the active attention to her flat mate through the TV program *Germany's Next Topmodel* with "positive emotions", which can best be described as "shared joy is double the joy" (f, 22). P12 describes a similar need for connection, since "one doesn't just want to have a TV series for himself" but "likes to talk about it" and share it with his friends (m, 24).

Desire for favor and appreciation at experience level

Passive attention through TV and social media was justified with the desire of doing their fellow human beings a favor and showing appreciation by "watching" pre-selected TV content (P9, f, 23) or "scrolling" through their social media posts (P8, f, 22). Some also recognize the same desire in their own TV and social media use, through which they want to passively turn to their fellow human beings. For example, T7 regularly watches basketball on TV with her partner to show him that she "appreciates" him, even though

she is not particularly interested in the sport (f, 21). T13 also turns passively to her partner out of "courtesy" by watching films selected by him that do not interest her (f, 25). At the same time, she admits that, like B, she changes roles after a while and actively distracts herself with social media when she gets "too bored" with her boyfriend's movies (*ibid.*).

Social dimension: Reacting to communicative attention

People use different strategies at *experience level* to react to their own desire for attention of others. For example, they can communicate directly or indirectly to others what goals they are pursuing through communicative practices.

Table 8. Reaction to communicative attention at experience level

Perception of media change as communicative attention at experience level	
Reacting to attention: Directly communicating goals	You could address the goals of your communicative attention more directly and clearly to avoid misunderstandings (P8, f, 22).
Reacting to attention: Indirectly communicating goals	Indirect, non-verbal cues could be used to recognize what goals you are pursuing with your communicative attention (P9, f, 23).

Source: Authors' own study.

Directly communicating the goals at experience level

P8 (f, 22) recognizes from the verbal reaction to the question "Shall we watch a movie?" whether her friend would rather have an active ("Wow yes! Come on, let's watch this film together!") or a passive attention ("No, I don't really feel like it, but go ahead and turn one on"). If the reaction is less clear, T13 tries to "probe" her friend by asking direct questions ("Are you really interested in that film?") to find out whether he really wants active or passive attention and whether they need to find "a compromise" (f, 25). The type of communicative attention can also be communicated in advance, e.g. through a kind of commandment of active attention when watching television together with the parents (P7, f, 21) or consciously watching *Germany's Next Topmodel* on TV with the flat mate and talking about it (P9, f, 23).

Indirectly communicating the goals at experience level

There are practices can be used to indirectly communicate or recognize the type of communicative attention. One of these is the timing of the attention. For example, T9 recognizes that she does not have to expect active attention from her boyfriend when she watches a TV series out of "habit" right before going to bed, whereas she does expect active attention when she is "invited to a joint TV evening" (f, 23). Some also take the TV content as an indication of whether active or passive attention is to

be expected. For example, it is "clear from the start" that Harry Potter fans meet up to watch Harry Potter films together to actively discuss them and that a "communicative activity" is expected (P8, f, 22). Even when watching football together, a communicative exchange – and, thus, active attention – is expected (P12, m, 24).

Critical-reflective dimension: Results of communicative attention

Occasionally, statements can be found in which our participants recognize short and medium-term implications at *experience level* (see Table 9).

Table 9. Results of communicative attention at experience level

Perception of media change as communicative attention at experience level	
Results of attention: Synchronous emotions	You briefly find yourself "in a joint world of emotions" when you allow others to participate in your own media use (P15, f, 26).
Results of attention: Closeness	In the medium term, you get closer if you use media together more often and actively turn to each other (P9, f, 23).

Source: Authors' own study.

Synchronous emotions at experience level

Some state that active attention through TV or social media use makes it possible in the short term to harmonize one's own emotional world with that of others and to achieve a "synchronicity" of feelings (P4, m, 30). P6 sees his own example of shared emotional worlds through "TV horror evenings", which become "even scarier" through the reception with friends, as one "virtually processes the same input" (P6, f, 20). P9 describes the synchronization of emotional worlds through TV content as a process of "sharing joy because you know the other people will find it entertaining or funny or exciting" (f, 23).

Closeness at experience level

Some see a medium-term implication of communicative attention in interpersonal closeness based on a "shared experience" through media use (P9, f, 23). For example, active attention through social media enables one participant to feel connected to people she only knows via WhatsApp and rarely meets in person: "And then when I see them in real life, it's as if I know them" (P14, f, 25). P9 states that she has built up a closer relationship with her flat mate over time by watching *Germany's Next Topmodel* together (f, 23).

Conclusion

The implications of media change are the focus of mediatization research, which has always seen itself as basic research, primarily concerned with "the development of terms and concepts and has only occasionally worked empirically" (Krotz, 2015, p. 448). This claim applies especially to the question of the extent to which people can realize and make sense of media change individually. The results of our group discussions show that interviewees are mainly able to perceive media change in everyday situations in which they themselves or their fellow human beings actively turn away (communicative avoidance) or towards each other (communicative attention) because of media use. Individual perception of complex mediatization processes is not an easy task and ought therefore to be considered part of a high level of media literacy. By applying several dimensions of media literacy based on the framework by Berg et al. (2023) on our interview statements, we can conclude that communicative avoidance or attention are perceived from a cognitive, affective, social, and critical-reflective perspective, meaning that people can reflect, justify, and react to communicative actions or draw results from them (see Appendix, Tables 11 and 12).

The combination of a 360-degree video and group discussion proved its worth as a survey tool as it enabled our study participants to address change in communicative behavior in the video (= representational dimension) and then to reflect on comparable (or different) experiences in their everyday life (= experience dimension). We found that our participants mostly referred to the content of the video first and then seamlessly (i.e. without any questions from the interviewer) switched to their own, comparable experiences. In data evaluation, however, it was necessary to differentiate between statements that either represented an interpretation of the video content or related to their own lifeworld experiences. It is interesting that statements about reflection and justification of communicative avoidance or attention have been articulated equally based on representational and experience level, while statements about reactions and results could almost exclusively be traced back to everyday experiences. This suggests that social and critical-reflective dimensions of media change in everyday life are perceived more clearly than cognitive and affective dimensions. It shows that some aspects of media change are more apparent than others and that the level of media literacy determines the extent to which people can perceive mediatization processes.

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Appendix

Table 10. Socio-demographics and field of study of study participants

Participant No.	Gender	Age	Field of study	Living arrangement
T1	female	20	Business mathematics	single
T2	male	21	Teaching (math, sport)	flat share
T3	male	23	Teaching (math, sport)	flat share
T4	male	30	Environmental ethics	with partner
T5	female	18	Teaching (primary school)	with parents and siblings
T6	female	20	Geography	with parents and siblings
T7	female	21	Business administration	flat share
T8	female	22	Teacher training (math, physics)	single
T9	female	23	Teaching (primary school)	flat share
T10	female	23	Engineering informatics	flat share
T11	male	24	Informatics	single
T12	male	24	Theology	with partner
T13	female	25	Geography	with partner
T14	female	25	Teacher training (math, theology)	single
T15	female	26	Theology	flat share
T16	female	29	Geography	with partner

Source: Authors' own study.

Table 11. Perception of communicative avoidance

Perception of media change as communicative avoidance at representational level		
Reflecting mental avoidance through print media	S1	Through the magazine, A turns away from B mentally, but not emotionally or sensorially. She is only mentally absorbed and capable of perceiving B's dejection and reacting to it empathically (P6, f, 20).
Reflecting mental and emotional avoidance through audiovisual media	S2	As a result of the TV documentary, A turns away from B mentally and emotionally, but not sensorially. She is mentally absorbed and able to perceive B's dejection, but not to react to it empathically (P12, m, 24).

Reflecting mental, emotional, and sensory avoidance through VR	S3	The VR documentation causes A to turn away from B mentally, emotionally, and sensorially. She is mentally absorbed and neither able to perceive B's depression nor to react empathically to it (P7, f, 21).
Justifying avoidance through desire for self-determination and continuity	S2 & S3	A would like to decide for herself when she finishes work and find out more about waste pickers in India by watching a documentary. She therefore has an interest in maintaining her emotional state (P2, m, 21.
Justifying avoidance through desire for escapism and disruption	S2 & S3	B wants to escape her own depression and not watch "depressing" documentary. She therefore has an interest in breaking through her emotional state by turning away from herself through social media (P8, f, 22).
Reacting to avoidance of others: Countering	S2 & S3	B tried to counter A's avoidance by turning away herself via social media (P12, m, 24).
... at experience level		
Reacting to one's own avoidance: Resisting		One could try to resist the aversion through the media and cheer B up before she turned away again herself (P14, f, 25).
Reacting to one's own avoidance: Interrupting		One could try to interrupt the avoidance through media as soon as one has the "desire for attention" (P8, f, 22).
Reacting to avoidance of others: Breaking through		One could try to break through someone else's avoidance by addressing her directly (P9, f, 23).
Results of avoidance: Asynchronous emotions		By turning away through TV or social media leads to "no more synchronization between feelings" in the short term, which leads to "asynchronous emotional worlds" (P3, m, 23).
Results of avoidance: Declining ability to concentrate		In the medium term, being distracted by TV or social media will reduce the "ability to concentrate" in face-to-face conversations (P14, f, 25).
Results of avoidance: Isolation and alienation		Turning away through TV or social media leads to a long-term "loss of empathy" (P4, m, 30) or "social isolation" (P8, f, 22).

Source: Authors' own study.

Table 12. Perception of communicative attention

Perception of media change as communicative attention at representational and experience level		
Reflecting active and passive attention through TV-usage	S2	A asks B whether she would like to watch the TV documentary she has selected, although she "ultimately doesn't care" [= passive attention] (P12, m, 24). With active attention, on the other hand, TV content is selected and commented on together (P4, m, 30).

Reflecting active and passive attention through social media	S2	B initially just scrolls through her friends' social media posts without liking or commenting on them [= passive attention] (P14, f, 25). Only when she writes a WhatsApp to a friend does she take on an "active role" (P10, f, 23).
Justifying attention through the desire for connection and affection	S2 & S3	By actively showing attention through social media, B wants to express a "shared moment" and the connection and affection for her friend (P14, f, 25).
Justifying attention through the desire for favor and appreciation	S2 & S3	Through passive attention, A wants to "let B participate" in the TV documentary (P12, m, 24) and do her a favor (P9, f, 23), although she does not involve her in the selection of the documentary.
… at experience level		
Reacting to attention: Directly communicating the goals		You could address the goals of your attention directly and communicate them more clearly to avoid misunderstandings (P8, f, 22).
Reacting to attention: Indirectly communicating the goals		Indirect, non-verbal cues could be used to recognize what goals you are pursuing with your attention (P9, f, 23).
Results of attention: Synchronous emotions		You briefly find yourself "in a joint world of emotions" when you allow others to participate in your own media use (P15, f, 26).
Results of attention: Closeness		In the medium term, you get closer if you use media together more often and actively turn to each other (P9, f, 23).

Source: Authors' own study.