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THE SPECTERS OF (SOCIOTECHNICAL) IMAGINARIES.

OPPRESSED FUTURES OF THE PAST

MARTIN DOLL

1. INTRODUCTION: (SOCIOTECHNICAL) IMAGINARIES AND THE SOCIAL NO. 1

A specter is haunting both science and technology studies (STS) and media studies – the specter of (sociotechnical) imaginaries. I do not use the term *specter* to downplay the power of (sociotechnical) imaginaries, but rather to stress its magnitude. Before I get to that, however, I would like to discuss the blind spots of this concept and to offer a slightly different focus, an approach that is not so much interested in a sociological, Durkheimian, large-scale view, but that emphasizes the virtues of cultural theory and history: thinking in tense relationships, in heterogeneities and ambivalences. Nevertheless, my goal is not to devalue the existing, sociologically informed concept but to translate it into a more humanities-specific one.

In their book *Future Media*, Christoph Ernst and Jens Schröter define the "'imaginary' of a given era" as an "'amalgamation' of hopes, fears, visions, and fantasies that form around new technology" (Ernst and Schröter 2021, 3). And they go on to characterize it as "a form of specific ideas […] that are common in *a* culture and in *a* society" and that form "a framework for *our* concepts of the technological future" (Ernst and Schröter 2021, 3; my emphases). By using the words "imaginary," "a culture" and "a society" in the singular, the authors are obviously aiming at a concept on a large scale. Declaring this "imaginary" to be valid for a whole "given era" suggests that this approach encompasses not only a large number of people (taken as a preconstituted whole) but also a long time frame.

The authors tend to follow Bruno Latour's notion of a "science of the social": "society" – comprehended as a "social no. 1"[1] – acts as a determinant for individual actions. This modus operandi was criticized by Latour with regard to Émile Durkheim because society on a macro level is understood as a social force, taking "social aggregates as the given that could shed some light" (Latour 2007, 5) on specific aspects of the micro level – in this case, certain developments in media technology.

Sheila Jasanoff, a leading representative of science and technology studies, who is also mentioned by Ernst and Schröter, is another example of thinking on rather larger scales. Whereas in an earlier text Jasanoff and Sang-Hyun Kim explicitly linked

1 Unlike the German translation (Latour 2010, 17), the English original does not speak about a "no." (Latour 2007, 5; for an earlier elaboration of the concept see Strum and Latour 1987).

their concept of "sociotechnical imaginaries" to "nation-specific scientific and/or technological projects" (Jasanoff and Kim 2009, 120; cf. 123), in Jasanoff's more recent introductory text to *Dreamscapes of Modernity* this is explicitly redacted as "not limited to nation states." Thus, the frame of reference is potentially narrower and may, for example, include "communities" (Jasanoff 2015a, 4, 11). In keeping with this, she defines sociotechnical imaginaries as "collectively held, institutionally stabilized, and publicly performed visions of desirable futures" (Jasanoff 2015a, 4).

Nevertheless, these imaginaries are still mainly related to larger units ("population-wide or nationwide levels") and are even extendable up to "the planet" (Jasanoff 2015a, 11). She explicitly writes: "Scales matter on this account" (Jasanoff 2015a, 28). And if you read closely, you mostly find an implicit trajectory of imaginaries from a smaller to a larger scale, as if the latter were the endpoint and main point of interest, e.g., "from single 'inspired' individuals or small collectives to communities and their leaders to nation-states and supranational global agencies" (Jasanoff 2015a, 28). In line with this, most of the titles by the authors of the edited volume speak about large-scale units: South Africa, Cold War America, Rwanda, Austria, etc. Thus, the smaller parts only seem of interest as necessary intermediate steps to the whole. Furthermore, the volume focuses on continuity and successful developments – "the stability, durability, and coherence of social arrangements" (Jasanoff 2015a, 29). In other words, the question is which "vanguard vision" has fulfilled "its potential to grow quite robust" (Hilgartner 2015, 38). So, when Jasanoff, referring to Hilgartner, stresses that only when one "'vanguard vision' […] comes to be communally adopted […] does it rise to the status of an imaginary" (Jasanoff 2015a, 4), it sounds like a sort of survival of the fittest for individual visions. Hence, even though Jasanoff also seems interested in how visions become imaginaries within "small collectives," and even though she presupposes that a multiplicity of imaginaries can coexist "in tension," her emphasis is on more influential imaginaries and grander "institutions of power" such as legislation, jurisdiction or "the media," which she sees as able to "elevate some imagined futures above others" (Jasanoff 2015a, 4). It is thus no coincidence that Jasanoff explicitly sets her analyses of sociotechnical imaginaries against the "flatness of networks" in actor network theory (ANT) (Jasanoff 2015a, 11; cf. 5, 18–19, 22–24, 28–29; 2015b, 322, 327).

However, I do not want to argue along the lines of "Latour beats Jasanoff" because I estimate his arguments as being uncontested by default. I am interested, rather, in bringing the two concepts closer together than Jasanoff would want to admit. To ask in her words: How can we acknowledge to a greater extent the "distributive, […] promiscuous" aspects of imaginaries, in short, their multiplicity, their complexity, and sometimes their historical marginality, without having to pay the ANT price of "depoliticiz[ing] power by making its actions opaque or invisible" (Jasanoff 2015a, 16–17; Doll 2016). So, I would like to argue for a stronger emphasis on weaker visions, on the plurality of imaginaries on the level of small collectives and communities, i.e., for the somewhat neglected intermediate steps. In actual fact, if we accord less importance to the large-scale level (national, supranational, *a*

society, *a* culture), these steps lose their intermediate character and it becomes obvious that they have a quality of their own. Accordingly, my proposal is not so much a counter-project to Ernst, Schröter, or Jasanoff but rather a shift in focus. From this perspective, first, imaginaries on the meso level become more important, and, second, historical imaginaries that did not survive and were not elevated to a higher level come more to the fore.

Or to put it in a negative form, with this modus operandi I would like to circumnavigate certain problematic political effects of approaches that concentrate on large-scale views. The first reason for this is that a large-scale scope that explores only the "broad imaginaries" might suffer from the same methodological issues as overly large-scale older anthropological concepts of "culture" in the singular, meant to encompass an entire population, if not more (cf. Hess 2015). The second is that, in a temporal or historical sense, the large-scale focus on the successfully elevated imaginaries tends to sympathize with the victor — to allude to Benjamin's "On the Concept of History" (Benjamin 2003, 391). So, in the same way that an overly distributed ANT approach could easily lead to a massive depoliticization, an excessively large-scale approach loses sight of the dispersed human and non-human devices through which power is exerted or, to put it more bluntly, the political battles that are and have been fought and lost.

2. A MEDIA ARCHAEOLOGY OF MARGINAL SOCIOTECHNICAL IMAGINARIES

To a certain extent, Erhard Schüttpelz also pleads for this perspective in relation to media historiography. Interestingly enough, he does so not against but with reference to actor network theory. According to Schüttpelz, actor network theory learned from Bloor's principle of symmetry (Bloor 1991, 7) that "successful inventions, projects, techniques, organizational changes and knowledge claims must be described and explained with the same categories as failed and unsuccessful ones" (Schüttpelz 2011, 25; transl. by M.D.), thus putting a stop to an oversimplified continuation of historical-teleological thinking in favor of unplanned and emergent developments. This historical-teleological thinking is not uncommon in traditional media historiography; it occurs whenever historical media and the ideas associated with them in "media imaginations" are viewed solely in terms of their lasting – if sometimes indirect – influence on the course of media development (for a critical view of this see Kluitenberg 2006, 9, cf. 17; see also Ernst and Schröter 2021, 11). Of course, this means that other media developments and associated countermovements that have historically disappeared are often lost from view, even though they are inherently no less important. I therefore agree with Eric Kluitenberg, who, with reference to Bruce Sterling, stresses the importance of "possible media histories that might have happened," because "every dead medium suggests an imaginary space of possibility that, as yet, has not been actualized" (Kluitenberg 2006, 15). And I would like to expand this view on historical technical developments

(dead media) to historical sociotechnical imaginaries (dead imaginaries). This kind of media archaeology, to borrow Siegfried Zielinski's term, would investigate "the rich variety of variants offered by bygone eras" (Zielinski 2006, 54). Thus, I would like to complement a way of thinking focused on not-yet-realized future media (which refers to the imagined technical futures seen from the present) with a rather Blochian "not-yet," referring to past (sometimes radical political) sociotechnical imaginaries, which failed in their time but might regain their political influence on the course of media development when unearthed from the "pile of debris" of history (Benjamin 2003, 392).

This kind of media archaeology would focus not on the successfully elevated imaginaries but rather, to borrow a notion from David Hess, the "contested imaginaries," "based on the idea that mobilized publics not only contest the assumptions of official imaginaries but also create their own imaginaries" (Hess 2015, 77).[2] Again, if one shifts the focus away from privileging victorious imaginaries (by following a sort of evolutionary model, in which certain imaginaries succeed as a result of natural selection), then "counter-imaginaries" (Hess 2015, 71), the programs and counterprograms (to use Latour's terms) of social movements, become more prominent in the analysis. Conversely, in order to avoid an overly small-scale approach that would have to consider even the most obscure individual pipe dream, the bar would be set where a certain idea of a media future circulates at least within a small collective (cf. Jasanoff 2015a, 4). But, in contrast to Jasanoff, this would be less about communally adopting or elevating a preexisting individual idea, and more about the translation and mediation of ideas and practices in the processes of their communal circulation – beyond a focus on an individual originator (cf. Latour 1994).[3]

2.1. HISTORICAL SOCIOTECHNICAL IMAGINARIES AS PART OF COLLECTIVE MEMORY

In order to differentiate this approach even further, I would like to take up a hint in *Future Media* that is neither explored nor explicitly discussed by the authors, the reference to "collective memory" (Ernst and Schröter 2021, 10) – a notion that was prominently developed by Maurice Halbwachs (*mémoire collective*) and further advanced by Jan and Aleida Assmann, as well as Astrid Erll. Whereas Ernst and Schröter stress that the knowledge constituted by imagining future media "*sometimes* mobilizes ideas that are stored deeply in the collective memory of a culture"

2 These are also considered by Jasanoff in terms of "resistance." Here again, however, the focus is on the successful imaginaries, i.e., those that prevail against other imaginaries (Jasanoff 2015b, 323, 329–331).

3 This concept bears a strong resemblance to the concept of guiding image or cultural model (*Leitbild*) by Katharina Giesel, if one places the emphasis on variability and dynamics as well as on the fact that they can be valid "for a small society [*Sozietät*], such as a subculture within an organization" (Giesel 2007, 252; transl. by M.D.).

(Ernst and Schröter 2021, 10; my emphasis), I would like to argue that this knowledge does not mobilize some ideas stored in a kind of external collective memory but that all the elements of this knowledge have to be understood as integral parts of collective memory or rather of collective memories in the plural. As a consequence, sociotechnical imaginaries can be further distinguished by reference to the idea of memory cultures, again understood in their plural form: "The plural form indicates that we are never, even in the most homogeneous cultures, dealing with a single memory community. On the contrary, every society bears a multiplicity of coexisting, often competing collective memories" (Erll 2008, 176; transl. by M.D.; cf. Erll 2011, 49). And I would argue that, consequently, this multiplicity also applies to the contested sociotechnical imaginaries. They are not bound to a monolithic imaginary of *a* society, or *a* culture (all in the singular) but differ radically in diverging social realms, political communities, etc.

2.2. SOCIOTECHNICAL IMAGINARIES IN RELATION TO FUNCTIONAL MEMORIES AND STORAGE MEMORY

With reference to Aleida Assmann, I would like to introduce the distinction between *storage memory* and *functional memory* – understood as "complementary and not contradictory" (Assmann 2011, 123) – into the examination of sociotechnical imaginaries:

> On the cultural level, storage memory contains what is unusable, obsolete, or dated; it has no vital ties to the present and no bearing on identity formation. […] Functional memory, on the other hand, consists of vital recollections that emerge from a process of selection, connection, and meaningful configuration. (Assmann 2011, 127)

Unlike Assmann, who tends to speak about memory in the singular, I would like to follow Erll's approach and refer to functional memories in the plural. Whereas storage memory, understood as an "amorphous reserve," already comprises a multiplicity of heterogeneous, abstract, and disconnected elements, functional memories consist of "compositions of meaning," and are "group related [and] selective" (Assmann 2011, 123, 126–127). And if, on a small scale, there is not just one group, but a multitude of different small collectives, this necessarily involves a multiplicity of functional memories. The storage memory consists of scattered elements that might be outsourced to storage media such as archives, books, paintings, photographs, etc., and forms a kind of background, "an important reservoir for future functional memories" (Assmann 2011, 130). The storage memory is a potentiality from which the lived memories (Assmann speaks of "embodied"), i.e., the functional memories, can be continuously actualized when the unconnected elements are connected and endowed with meaning. If not, the elements simply stay in the storage memory, unconnected or 'dead.' Thus the storage memory is a sort of condition of possibility, "a fundamental resource for all cultural renewal and

change" (Assmann 2011, 130). In this respect, the storage memory is an indispensable corrective to currently actualized functional memories, which would otherwise be ossified and absolute. Storage memory thus holds in store "a reservoir of unused possibilities, alternatives, contradictions, criticisms, and unremembered incidents" (Assmann 2011, 130).

Following on from this, I would like to argue that historical sociotechnical imaginaries are related to both types of memory. On the one hand, they are preserved in the form of fragmentary, dispersed, and insignificant elements; they exist as a "pile of debris" of history, and can lie dead in the archives of the storage memory because they are barely remembered or even actively forgotten (e.g. in the case of colonial aphasia: Stoler 2011). On the other hand, they can be brought to life in the functional memories when the elements are put together and reconstructed, and vital ties to the present are (re)established. Thus, the media archaeology of sociotechnical imaginaries is also connected to both the storage memory and the functional memories. On the one hand, it is linked to the storage memory, because, as Assmann points out, storage memory does not arise out of itself, "it needs to be supported by institutions that preserve, conserve, organize, open up, and circulate cultural knowledge" (Assmann 2011, 130). In short, archival records, journals, documents, images, and photographs have to be saved and preserved – be it in official central archives, libraries, and museums or in seemingly marginal private collections and recollections. On the other hand, the media archaeology of sociotechnical imaginaries is linked to functional memories because the work of gathering the elements and piecing them together does not happen automatically, it has to be done with care. One has to reconstruct specific past sociotechnical imaginaries; they are not just out there. Both tasks (those concerning the storage memory and those concerning the functional memories) can be completed either in institutional contexts such as universities or research institutes or by non-governmental organizations, smaller communities, or activists. So, a specific archaeological investigation at a specific time might feed into a specific functional memory of a specific smaller or larger collective. And in that respect, it might have specific political effects because it involves "resisting the automatic expulsion of the past from everyday memory" and "its deliberate exclusion from the functional memory" (Assmann 2011, 130). Assmann emphasizes: "Functional memory cut off from the historical archive degenerates into fantasy, whereas the archive cut off from practical use and interest remains a mass of meaningless information" (Assmann 2011, 132).

2.3 METHODOLOGICAL DIMENSIONS OF A MEDIA ARCHAEOLOGY OF SOCIOTECHNICAL IMAGINARIES

One might ask how to analyze historical sociotechnical imaginaries. While it is not possible to outline an entire methodology here, I would like to sketch out at least some aspects. Following Erll's elaborations on cultural memories with reference to cultural semiotics (Erll 2008, 177; 2011, 103), I would like to adopt her three

dimensions – material, social and mental – and the respective analytical procedures for an analysis of sociotechnical imaginaries. Based on the complementarity of storage memory and functional memories, I would say that all three dimensions relate to both areas of cultural memories, because in each case they concern storage and meaningful retrieval practices.

1. The material dimension is constituted by a plethora of different media and cultural productions such as texts, monuments, rites, pictures, photographs, and films, to which cultural memories are outsourced (see, unfortunately with a strong emphasis on writing, Erll 2011, 33). They preserve certain aspects of the past across spatiotemporal boundaries. In relation to sociotechnical imaginaries, this extends the media archaeologist's task beyond reading archival factual documents and texts to considering fictional texts and illustrations, and interpreting artefacts such as historical paintings, sketches, diagrams in patent registrations, or even architectural sketches. This approach also makes it possible to deduce historical media practices – which are one aspect of sociotechnical imaginaries – from all these different sources.[4]
2. The social dimension comprises the people and societal institutions which are part of the storage and retrieval of knowledge relevant to smaller or larger collectives. The archaeologist's task is therefore to check carefully which individuals and institutional contexts to include (or rather, not to forget the seemingly marginal ones beyond the official representatives and institutions, such as national libraries and official archives).
3. The mental dimension is related to conceptions and ideas, or to certain values and norms. Concerning the past, this might be one of the media archaeologist's most difficult tasks, if the aim is to grasp not only official narratives of the time but also the multiplicity of conceptions and ideas that are less overt. For contemporary history, this is the entry point for an oral history methodology.

4 As these theoretical and methodological considerations are part of a larger book project on alternative sociopolitical concepts linked to media technologies and practices in the nineteenth century, I want to give an example. In order to analyze the planned interplay of architecture, communication technologies and social renewal in Charles Fourier's ideal communities, one has to collate not only his copious writings but also his drawings, as well as architectural sketches, paintings, and programmatic manuscripts by his followers (such as Victor Considérant). In keeping with my focus here, Fourier's project was a disaster. It was never realized on the scale he had envisaged; experimental communities following his ideas, e.g., by Fourierists in France and the USA, were all doomed to failure (cf. Doll 2022). Nevertheless, Fourier was not an individual crank, but the founder of a whole political (media) movement with its own imaginations of a specific media future – though not one that was particularly elevated by "legislatures, courts, the media," to allude to Jasanoff (2015a, 4). My book will be published in 2024, most likely under the title *Mediale Gegenwelten*, with the German publisher transcript.

3. CONCLUSION: A POLITICS OF RETRIEVING SOCIOTECHNICAL IMAGINARIES, OR, THE SPECTERS OF POLITICAL IMAGINARIES

As already implied, the work of a media archaeology of sociotechnical imaginaries is not just a task of mustering "a mass of data" (cf. Walter Benjamin's criticism of nineteenth-century historicism: Benjamin 2003, 396). It is unquestionably also a political task: As soon as unused possibilities, alternatives, and contradictions, in short, missed political opportunities are actively remembered, i.e., actualized in the functional memories, they can also serve as a delegitimization of existing power relations. It can help people realize that these power relations are an effect of a historical becoming, an effect of past political decisions (and perhaps of suppressing other ones), and that, therefore, there were and are alternatives. In this respect, the media archaeology of sociotechnical imaginaries is part of a "history of the present" as described by Michel Foucault (1995, 31), and connected to his famous concept of critique, linked to the question of "how not to be governed like that, by that, in the name of those principles, with such and such an objective in mind and by means of such procedures" (Foucault 1997, 44).

While Benjamin had lamented that history was written by the victors, historian Peter Burke amended this to "history is [more or less actively, M.D.] forgotten by the victors […] whereas the losers are unable to accept what happened" (Burke 1997, 54). With reference to this, Assmann emphasizes:

> The motif underlying counter-memory, whose bearers are the conquered and the oppressed, is the delegitimization of power that is experienced as tyrannical. It is as political as the official memory, because in both instances it is linked with a claim to power. The counter-memory serves as a foundation not of the present but of the future, anticipating the time that will follow the fall of those currently in power. (Assmann 2011, 129)

The same goes for past sociotechnical imaginaries: As marginal as they might seem at one historical point (particularly when viewed in all their incompleteness and incoherence in the storage memory), once they are actualized, they can form a sort of counter-memory that might, "in the fight for the oppressed past" (Benjamin 2003, 396), lead into another future.

Nevertheless, particularly in the context of sociotechnical imaginaries, it is crucial not to misunderstand the storage memory and above all the functional memories as firmly delimited homogeneous fields. Instead, again with reference to Erll, I want to stress "the dynamic, creative, and processual nature, and, above all, the plurality of cultural memory" (Erll 2011, 49, cf. 62) and thus also the corresponding status of sociotechnical imaginaries in relation to it. Whereas for Ernst and Schröter,

following Cornelius Castoriadis,[5] "the imaginary offers an inventory of culturally specific forms of what one can imagine" (Ernst and Schröter 2021, 10), I would like to shift the focus to analyzing the imaginaries more in their multiplicity and disparity (or their scatteredness, if we think about their status in storage memory). This approach makes it easier to take into consideration imaginaries that are less coherent, exist on a smaller scale, i.e., circulate in smaller communities, and do not belong to a whole society or culture. Assmann's approach also allows a clearer view of the non-actualized elements, which may still be waiting for actualization.

To conclude with Derrida, past sociotechnical imaginaries or oppressed past futures can build a sort of political inheritance of missed political alternatives distributed "in the two directions of absence" (Derrida 1994, 25): the past and the future. This political inheritance is radically anachronistic,[6] because it can be interpreted as a specter that reminds us "of what is no longer and what is not yet" (Derrida 1994, 25): "At bottom, the specter is the future, it is always to come, it presents itself only as that which could come or come back" (Derrida 1994, 39). And to avoid the trap of longing for a certain dead political past to be reinvigorated in its totality, Derrida reminds us that "inheritance must be reaffirmed by transforming it as radically as will be necessary. […] Inheritance is never a given, it is always a task. […] [T]he thinking of the specter […] is a thinking of the past, a legacy that can come only from that which has not yet arrived" (Derrida 1994, 54, 196). One of the tasks of a political media archaeology of sociotechnical imaginaries is therefore to show the downsides of certain political movements in history, in order to prevent history from simply repeating itself.

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5 A more precise comparison of my processual approach on sociotechnical imaginaries (based on Erll) with Castoriadis's thoughts on the dynamic dimension of Magma seems promising but is beyond the scope of this article. However, the clearest difference between my approach and that of Castoriadis is that I am less interested in "society as a whole" (Ernst and Schröter 2021, 31) and in totalities such as "a universe of significations" (Castoriadis, quoted in Ernst and Schröter 2021, 32). The storage memory, though not totally unstructured, is not meaningful to the same degree. It is more a "pile of debris" that has to be recomposed and thus endowed with rudimentary meaning.

6 It is as anachronistic as quoting Derrida at a time when the end of theory has been strongly in vogue in the (digital) humanities for quite some time (Anderson 2008).

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