
Comment on the previous four vignettes

5 Technological happenings. Notes on temporality and technologies as sites of expectation

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More or less implicitly, the social scientific study of technology has for a long time been interested in the temporal aspects of technologies. Early comparative approaches in the wider field of cultural and social theory saw them as part of general historical transformations, taking the existence of specific technologies, such as irrigation systems or electricity, as indicators of divergent stages in the evolutionary progress of humankind. In this context, technologies were seen to mirror a people's cultural accomplishments, as well as functioning as catalysts for socio-cultural change. Yet, as is well known, the teleological and normative premises of these approaches, which later on also influenced modernization theory and development policies, came under severe criticism when a new generation of social scientists, such as Thomas Hughes (1983), started to question the determinism and temporal unilinearity implied in many earlier analyses of technological 'innovation' and emphasized instead the unpredictability and contingency that characterizes these processes. At around the same time, scholars in the newly emerging discipline of Science and Technology Studies (STS) developed an interest in the social practices involved when constructing and making use of technologies (see, for example, Bijker, Hughes and Pinch 1989). For those subscribing to prominent approaches in Science and Technology Studies, such as Actor-Network Theory (ANT) and social constructivist perspectives (SCOT), this means conceptualizing technologies *not* as something that is located 'outside' of sociality, but as an integral and indispensable component of making sociality possible. In other words, as has been proposed most prominently by Bruno Latour (for example, Latour 2005), this analytical perspective treats technology as being embedded in sociality, just as 'the social' is considered to be inscribed in 'the technological' (cf. Akrich 1994; Winner 1980). In this way, technologies can be said to be characterized by at least two temporalities, both of which influence each other: on the one hand, they are part and parcel of the temporal flow of social practices and interactions; on the other hand, technologies can be said to have their own agentive temporality, as in the case of the refrigerator which, in a manner of speaking, works like a 'time-machine' by slowing down the process of biological decomposition so that the intervals between purchasing new articles of food can be reduced.

In the present commentary on the first set of four ethnographic vignettes contained in this working paper, I would like to highlight an additional aspect of the temporality of technologies which, in my understanding, has not yet been taken account of sufficiently up until now. In making this aspect a topic of discussion, I take inspiration from William Sewell's recent

call for an ‘eventful sociology’ which, according to him, could benefit from the long-standing expertise of historians in analytically dealing with temporality:

‘The conceptual vehicle by means of which historians construct or analyze the contingency and fatefulness of social life is the event. Historians see the flow of social life as being punctuated by significant happenings, by complexes of social action that somehow change the course of history’ (Sewell 2005, 8; italics added).

Of course, social and cultural anthropologists have also contributed to this discussion about the eventfulness of life, not only by studying public events in the form of more or less conventionalized public performances (e.g. Handelman 1998), but also by focussing on what happens when something unexpected breaks into the everyday, as exemplified by Edwin Ardener’s investigations into ‘periods of singularity’ (Ardener 1989), Veena Das’ discussion of ‘critical events’ (Das 1995) and the notion of ‘rupture’ that in recent years has gained some prominence in the anthropology of Christianity (e.g. Meyer 1998; Robbins 2003, 2007). But Sewell also makes another terminological differentiation which can be employed productively in anthropological analyses of the temporality of technologies, namely the distinction between ‘happenings’ and ‘events’: ‘Most happenings ... reproduce social and cultural structures without significant changes ... Events may be defined as that relatively rare subclass of happenings that significantly transforms structures’ (Sewell 2005, 100).

In social and cultural anthropology, technological *events* in the sense above have rarely been made the object of study, one of the few exceptions being Adriana Petryna’s *Life Exposed: Biological Citizens after Chernobyl* (2002). In the field of Science and Technology Studies, on the other hand, Sewell’s distinction between ‘the flow of social life’ and ‘happenings’ resonates with Susan Leigh Star’s pioneering work on infrastructure because, according to her widely cited phrase, the ‘normally invisible quality of working infrastructure becomes visible when it breaks’ (Star 1999, 382; see also Larkin 2013). Thus, while normally operating as a tacit foundation of sociality, for most people infrastructure jumps into awareness through happenings in the form of breakdowns, unwelcome as they may well be.

In what follows, I argue that two conceptual notions, newly introduced here, can clarify the way in which technologies modulate the flow of social life, namely ‘technological happening’ and ‘site of expectations’. I do so by suggesting that this modulation of social life is not only due to the fact that technologies are inherently relational and that they form associations with other human and non-human actants. On certain occasions they also interrupt the flow of social life, as a consequence creating the necessity for the social actors involved to reflect on the situation (i. e., the technological happening) and to creatively re-adjust their self-understandings, relations with others and visions of the future. As we will see, these interruptions can be deliberately produced and routinised, and may thus be expectable; but they can also be characterized by a suddenness that unexpectedly breaks into everyday routines. At the same time, technologies can be ‘sites of expectations’, that is, localized material entities with a potential for agency, anticipated by those dealing with them, which may interrupt the flow of social life in the future in the form of what I have called technological happening.

Kathrin Heitz Tokpa’s case of the border post between the Republic of Côte d’Ivoire and Burkina Faso is concerned with a passage point that connects *and* interrupts (cf. Simmel 1994). The material technology employed to intercept the traffic flow from the one side of the border to the other – that is, the rope ‘barring’ the dust road – does not in the least represent a fortification, but is of a rather symbolic nature. At the same time, since this specific border tech-

nology has a fixed location, for those planning to cross the border there is a certain predictability regarding what kind of interactions will take place there. In the form of technological happenings, encounters at the border post usually culminate in the requirement to produce documentary evidence for one's personal identity, and in the Côte d'Ivoirian case also for the ownership of one's means of transport, such as motorbikes.

Similarly, Jude Kagaro's case of the Ugandan police's newly introduced Anti-Drunk-Driving Operations revolves around the verification of a specific physiological aspect of the drivers' identity at the time of testing, namely the drivers' blood alcohol content (BAC). Yet by contrast to Heitz's spatially fixed border post, in order to take offenders by surprise, police forces in Uganda do not always use the same location when conducting these operations. That they are fairly successful in doing so is vividly illustrated by the photographs in Kagaro's vignette which depict the drivers' appalled and shamefaced reactions to being tested. In that way, use of the breathalysers can be said to prompt an unexpected technological happening for suspected drivers that interrupts their flow of social life with sometimes quite severe consequences.

While the first two vignettes relate to cases where technologies are intentionally employed by specific groups of social actors to induce technological happenings, Sophie Schramm's analysis of the water distribution network in Dar es Salaam resonates with Susan Leigh Star's argument, mentioned above, that infrastructure tends to become visible only when it breaks down, thus unleashing a technological happening nobody had intended. One of the photographs in Schramm's vignette depicts puddles of water in the middle of a mud road, indicating that there is water spilling out underground from a broken waterpipe. This is an example of a technological happening 'surfacing' in the literal sense of the word, and in doing so demanding people's attention and often giving rise to creative acts of adaptation. What is more, Schramm's ethnographic vignette also makes it clear that technologies can be sites of expectation: since water distribution in Dar es Salaam is highly unreliable due to leaking pipes, the general water shortage in this region and irregularities in how the available water resources are allocated by the relevant municipal authorities, one can never be sure whether there is actually water in a given waterpipe. All the same, the technology of the pipes does represent *the* site where people expect to find water, checking every now and then whether that is the case or not.

In the latter regard, Schramm's case bears a similarity to what Julia Willers shows in relation to a climate change adaptation programme in present-day Ethiopia. At its core, this programme consists in the establishment of technological enclaves (cf. Ferguson 2006), so-called 'demonstration projects', where newly introduced technologies are meant to trigger economic and socio-cultural transformations in the wider population. Being envisioned as a climate-friendly technological role model, this programme aims at persuading local people to abandon their previous ('traditional') agricultural practices, which are said to have a negative impact on the climate. As such, the Ethiopian demonstration projects can be understood as the deliberate construction of technological sites of expectation by firstly emphasizing innovation and secondly holding out the prospect of socio-economic prosperity through further technological happenings in the future. In view of this finding, it is no wonder that development aid projects throughout the world have focused their efforts time and again on the establishment of technological sites of expectation, not only in order to come up with a thoroughly systematized 'ideal case' of the 'right' use of technologies, but also to demonstrate publicly that new technologies can make new things happen.

To conclude, I have argued that William Sewell's notion of the happening and Susan Leigh Star's work on infrastructure can help us gain new and interesting insights into the temporality

of technologies. The first two vignettes show by way of empirical examples how technologies, namely ropes at border posts and breathalysers, can be employed deliberately to interrupt the flow of social life of other people, who, by means of these technologies, are authoritatively forced to produce evidence for (the physiological condition of) their personal identity. By contrast, the third vignette on the dysfunctions of a water distribution network highlights the fact that not all technological happenings are deliberately induced. At the same time, no less than in the other ethnographic cases, the unsolicited and unwanted breakdown of technologies can trigger and catalyse a reorganization of social life for the actors involved. Finally, as became clear in the last vignette, the knowledge that technologies can afford opportunities for reorganizing society can lead to the construction of socio-spatially bound enclaves, for example, 'demonstration projects', within which certain technological happenings are supposed to take place which, in turn, are hoped to have a bearing on the world outside the enclave. It is in the latter sense that technologies can be said to be sites of expectations, that is, material and spatially bounded entities characterized by a potential for non-human agency which, in the perception of human actants, might with some probability have an influence on the flow of social life by temporarily interrupting it in the form of agentive technological happenings.

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