The title “ecologies of change” might seem paradoxical to some; to others even tautological. Is ecology synonymous with the lasting and unchanging and thus in urgent need of preservation, to be defended against human interventions and technological change? Or is change inherent to ecologies and thus an ecological mode of thinking puts forward a dynamic, processual and open way to conceptualise the world? Homeostasis, or the self-regulation of nature presupposes a concept of nature as separate from culture. Thus nature always already is a discursive construct, on which ideals of regulation and (self) control are projected. There is no easy nor singular answer to the question of what media ecology is. The contributions in this issue of spheres touch upon this plurality and are concerned with the concept of (media) ecologies in diverse ways.

Forays into the terminological depths and shallows of ecologies of change are informed by different (sub-)disciplinary backgrounds. As a journal for digital cultures we start at our homebase of media studies. But – as we and the contributors of this issue of spheres argue – we aim to foster dialogue and exchange between media ecologies and social, political and other understandings of ecologies of change. Media philosophy is concerned with the status of and feedback relations between nature and technology. In this sense ecological thinking offers an alternative to static concepts such as systems or structures, trying to grasp the processual undercurrent of media environments. Another take on this is proposed by researchers who focus on media practices, and thus retrace the diffusion of media throughout society, the environment and subjectivities. Here, authors take the ecological as a way of thinking the materiality and performativity of media. Beyond media research you might find numerous takes on ecologies of change.
that do consider the technological without necessarily foregrounding the digital. Turning towards the ecological in times of ecological crisis promises a fruitful transdisciplinary dialogue. This issue of *spheres* hopes to stimulate some lines of exchange.

For the challenge of social change in digitized contexts, we consider three lines of thought to be promising within this broad and controversial field of ecologies: First, the relation between nature and technology is taken out of its cultural, historical closet and renegotiated. Buried within the idea of the ecological, lies a concept of the technical, which is always there; which, you might say, created the ecological by burying itself within it. Still, whether change is driven by the technological, natural or human components, is understood quite differently. What also remains unclear is how far the technological has become the new nature in media ecology. Thus, the research field topples into a kind of naturalization of technology, becoming blind but also helpless towards human intervention and responsibility.

Secondly, interdependence and relationality are considered fundamental to the functioning of the ecological. The past is woven into the present, technology and the human body merge, nature is no longer considered an entity apart from technology but rather it is intimately restructured by it. Ecologies can be seen as an ethical response to a condition of always being in relation and, therefore, are understood as a specific set of pre-conditions for (social, political or cultural) change. So there are a number of layers of interdependence leading to a thinking, which bids farewell to the idea of autonomous entities.

Third, the relevance of the human subject is up for debate. Ecologies of change, according to our authors, do rely to a large extent on human actions and agency. They operate at the interface of environment, society and subjectivity, seeking ways of emancipation. However, media ecology largely decentralises and destabilises the human subject and turns towards non-human agencies. So the question remains, how do these agencies reassemble and under which conditions so new forms of enunciation emerge?

As an editorial collective based in Germany, the discourse on media ecologies is central to our current thinking within media theory. The ecological seems to be a new discovery, a turn towards an integrative perspective on media. In terms of the broader, international discourse on ecologies, we have raised two major objections in this issue.

First, there are a number of theoretical as well as political lines of thought which (could) feed into these debates. Among those are feminist and post-colonial theories, which qualify media ecology as a
much broader concept within reflections on social change. In the 1970s, Shulamith Firestone (1970), to name one prominent feminist, already considered new technologies as the tipping point of male domination and thus also a path towards feminist liberation. She argues that technologies provide ways to master reproduction beyond heterosexual coupling. Firestone set the path for a controversial and significant discussion on feminism and ecology based on technological innovation.

There is also the debate on transhumanism and its various critical replies which also demand ethical replies in the context of ecologies of change. Other impulses might come from cyborg discourses, which engage in envisioning alternative futures. The figure of the cyborg provides a site of social conflict, bringing along a whole ecology of change. These interventions are closely related to current discussions – but hardly ever considered as relevant genealogical references to these debates.

Secondly, shifting our attention from the German to a more international, post-colonial perspective, the philosophical ecological lense is in urgent need of political reflection as there is a strong epistemological and genealogical link between biology, the thinking of the ecological and racism. One example of this might be found in the writing of one key figure of ecological thinking, Félix Guattari. While without a doubt trying to look for a more livable future for all, his essay *Remaking Social Practices* claims that it is population growth in the Global South, which is to be considered as the cause of growing disparities in wealth between the Global North and South. Global power structures, from colonialism to today's neo-colonial economic trade agreements, are left unmentioned. Supposed high reproductivity rates of those bereft of power are instead considered the cause of global inequalities. Not taking into account historical and contemporary political structures but instead discussing the (media) ecological question apart from the political certainly, constitutes one of the major challenges of this debate. So if you leave the theoretical cosmos of those applying the terms of media ecology, there still is wealth of literature that reflects upon these dynamics.

The current issue of spheres follows these reflections and invites readers to consider a broad idea of media ecologies. Thomas Bjørnsten and Jan Løhmann Stephensen expand on three art projects as examples for the manifold ecological engagements and interrelations of the technological and the world. Bernard Geoghegan’s commentary sheds some light on the broader implications of the topics in the context of the Anthropocene and Climate Science.

Barbara Glowczewski argues that technological, social and environmental change is always interwoven. By referencing numerous instances of exploitation, dehumanization and global inequalities, she insists on the political moments of ecologies of change. History is tied to the present, technology interacts with beliefs, and local resistance is bound to hegemonic media coverage through their struggles. With her focus on catastrophes of social and environmental nature, Glowczewski presents a Guattarian counter-reading to ecologies of change primarily structured through digital technologies. Gary Genosko comments on the methodological aspects of Glowczewski’s argument and underlines its links to Guattari’s approach.

While Glowczewski and Genosko apply the above-mentioned ecological logics of relatedness to the issue of methodology, Lawrence Liang focuses on practices of media ecologies, more precisely on archiving in current digital conditions. The shift to the logic of commons in this area unsettles dominant politico-economic logics and thereby contributes to social change. He draws on the example of the filmic archive of Pad.ma in order to argue shifts in archival practices as much as the challenges that they pose to hegemonic norms. In his comment, Robert Rapoport engages Liang’s perspective on the contingent by critically reflecting on database technologies and the shift in archiving through the growing predominance of meta-data.

Finally, Francesca da Rimini and Virginia Barratt publish a slightly prolonged version of their performance at the Cyborg event of the Disruption Network Lab in Berlin in May 2015. Their vision of three Cyborgs hints at possible political modes within the cosmos of media ecologies and thus lay a path for bringing forward change. Rebecca Ardner contextualizes the performance and its line of thought within cyberfeminism and explores the modes of critique developed there.

Multi-media reflections on media ecologies are contributed by Jorge Crowe, Luciana Fleischman, Mariano Fressoli, Fran Ilich and Beto Shwafaty. Their collaboration is an outcome of the Making Change Meeting in Bogota earlier this year. Coverage on the broad range of debates on media ecologies at this meeting are covered by Sara Morais in this issue. Finally, Jesper Olsson provides a book review of Jussi...
Parikka’s *A Geology of Media*. Readers are invited to contribute further reviews of emerging literature on media ecologies.