Unravelling

Propositions

1. To study the socio-technical processes of *technological decline*, a metaphor of "unravelling" is useful to conceptualise the loosening and unknotting of the seamless web of meanings, competences and material entities constitutive of a given technology.
2. To counteract the prevalence of studies on new and emergent technologies, scholars in science, technology and society (STS) and in transitions studies should also focus more on technologies' *'end of life'*.
3. After declining, some technologies *return*, such as cloud seeding for geoengineering or the vinyl record.
4. STS scholars should not shy away from *middle range theorisation* in favour of exclusively exploring the messiness of case studies.
5. The proposed unravelling *approach* may help study future cases of decline.
6. For technologies, in broad sense, such as a coal-fired power plant, internal combustion engine, or mass-scale digital 'snooping' and autonomous killer robots, it is already too late to try to steer their *development*, as is traditionally the task of Technology Assessment and Responsible Research and Innovation. Transitions away from these technologies need to be *accelerated* with the help of more active governments.
7. Because transforming, nudging and offering alternative technologies via the market is insufficient to address the climate crisis, governments should acquire *capabilities* to phase out those technologies that are decided to be undesirable.
8. For deliberate decline of an established technology, governance actors may need to *support* the unravelling processes by way of, for instance, awareness raising, resource management, regulation and monitoring, leaving room for those with interest to continue working in a niche (in which case technology impacts could be better controlled), as well as trade instruments and international agreements for leveraging other countries' decline of the given technology.