

Unravelling

Citation for published version (APA):

Koretsky, Z. (2022). *Unravelling: the dynamics of technological decline*. [Doctoral Thesis, Maastricht University]. ProefschriftMaken. <https://doi.org/10.26481/dis.20220412zc>

Document status and date:

Published: 01/01/2022

DOI:

[10.26481/dis.20220412zc](https://doi.org/10.26481/dis.20220412zc)

Document Version:

Publisher's PDF, also known as Version of record

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

www.umlib.nl/taverne-license

Take down policy

If you believe that this document breaches copyright please contact us at:

repository@maastrichtuniversity.nl

providing details and we will investigate your claim.

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.