

Positivism – linear progress

- Auguste Comte (1798–1857). The idea of linear progress in well defined stages.
- Theological Metaphysical Scientific.
- Theological. Supernatural forces explain events like thunder or drought.
- Metaphysical. Explanations in unobservable phenomenon.
- Scientific. Proper goal of science is simply the prediction of phenomena.

Marx

- Marx used Hegels idea of thesis antithesis = synthesis in the context of the development of history.
- History is determined by the struggles between those who rule the modes of production and those who are under that rule.
- On this basis it is possible to predict the course of history.

Determinism

- Determinism: Determinism is true of the *world* if and only if, given a specified *way things are at a time t*, the way things go *thereafter* is *fixed* as a matter of *natural law*.
- We ought to regard the present state of the universe as the effect of its antecedent state and as the cause of the state that is to follow. An intelligence knowing all the forces acting in nature at a given instant, as well as the momentary positions of all things in the universe, would be able to comprehend in one single formula the motions of the largest bodies as well as the lightest atoms in the world, provided that its intellect were sufficiently powerful to subject all data to analysis; to it nothing would be uncertain, the future as well as the past would be present to its eyes. The perfection that the human mind has been able to give to astronomy affords but a feeble outline of such an intelligence. (Laplace 1820)

Technological Determinism

• Technology shapes how we as individuals in a society think, feel, act, and how are society operates as we move from one technological age to another. (Remember Kuhn's view on science and the importance of the concept of paradigm.)

- Technology defines history.
- "The hand-mill gives you society with the feudal lord; the steammill, society with the industrial capitalist." Marx, The Poverty of Philosophy

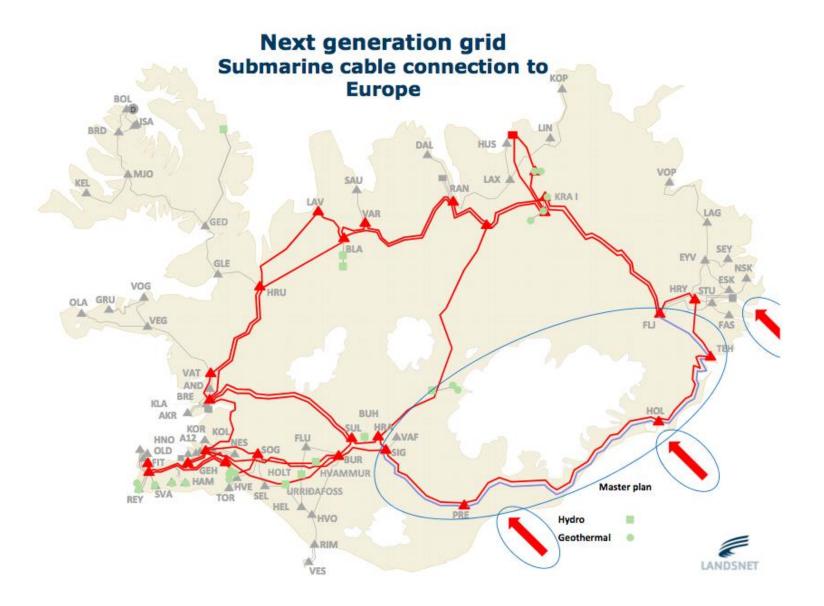
Themes

- The Simultaneity of Invention (Tesla vs Edison)
- The Absence of Technological Leaps (uniformitarianism vs catastrophism)
- The Predictability of Technology
 - "To make a steam engine, for example, requires not only some knowledge of the elastic properties of steam but the ability to cast iron cylinders of considerable dimensions with tolerable accuracy." (Heilbroner, 339)

The invention and getting to the market.

Electricity

Technological systems



Phones

In 1915, a three-minute daytime phone call from New York City to San Francisco cost 20 dollars



Qwerty

The case of brilliant invention and race to market.

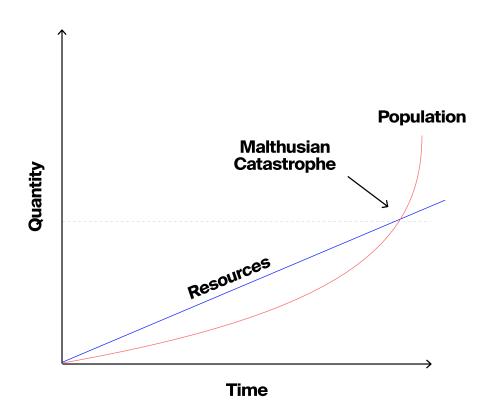


Guthenberg press

- 1440 Gutenberg in Germany his invention drastically changed society.
- The establishment of the printer strengthened certain crafts such as copyists, book binders, gold- smiths, rubricators, illuminators, and miniature painters.
- Printing offered



Malthusian Catastrophe



Precedent

"Death"

- We need to reconceptualize the tools we have traditionally used to relieve the tension between technology and ethical concerns.
- "Re-engineered" the concept of death in light of technological developments.
- Required more precision.

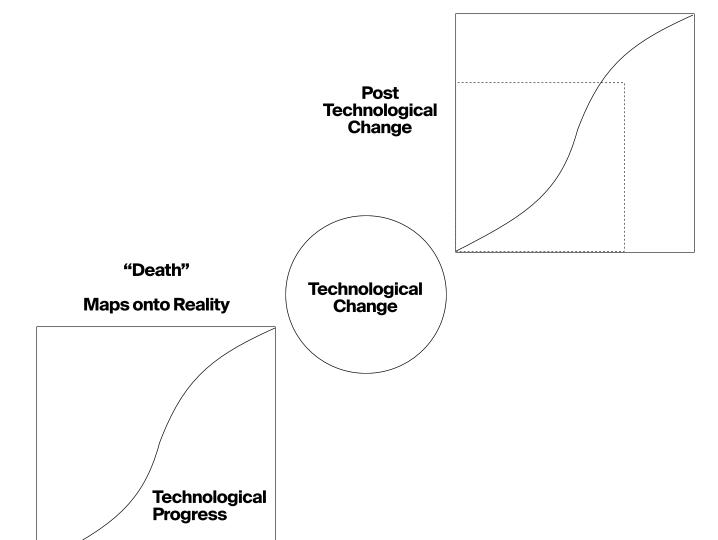
"In recent years, there has been much discussion about the definition of death in neighboring countries. The reason for this is, among other things, that with increased technology in medicine, not least with the advent of respirators, it is possible to maintain the respiration and heartbeat of a patient even though brain activity has truly and finally ceased. This has called for a broader definition of death than the traditional one, which assumes that a person is dead when his heart stops beating and his respiration stops. Further evidence of death has been signs of death such as livor mortis.

Many countries have for these reasons redefined the concept of death in such a way that a person is considered dead if his brain activity has ceased and it is clear that brain activity cannot resume. The Danes and Icelanders are the only peoples in Western Europe who have not reviewed the concept of death in this way. It has long been clear that there was a need to investigate whether there was reason to follow the precedent of other nations". (Alþingi 1990).

"Death"

Doesn't Capture Reality

Tension resolution



Prior to Technological Change

Concept

Doesn't Capture Reality

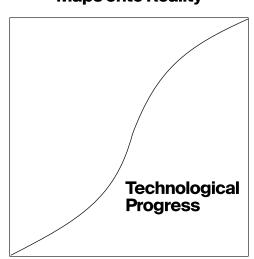
Tension resolution

Concept
Maps onto Reality

Post
Technological
Change

Technological
Change

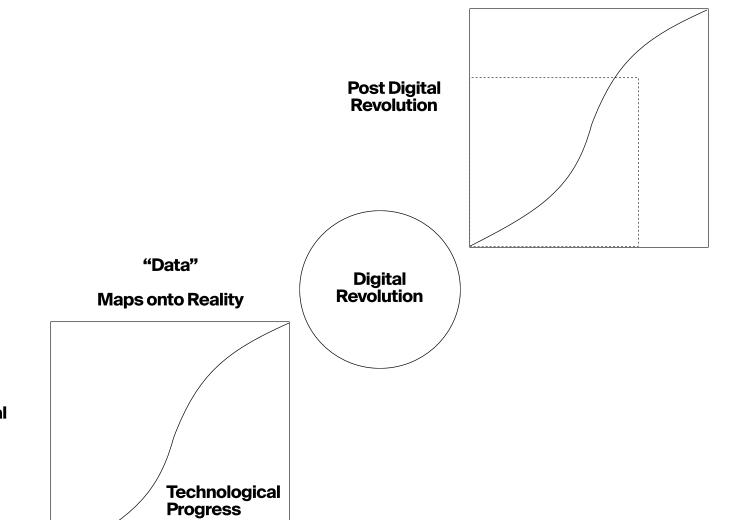
Prior to Technological Change



"Data"

Doesn't Capture Reality

Tension resolution



Prior to Digital Revolution

Precedent

"Presumed Consent"

- Organ transportation became easier, with improvements in medicine and transportation methods.
- The concept better fosters technological developments while holding onto the ethical principles of self-determination and autonomy.

"This bill proposes a change to 2. of the law to aim for "presumed consent", i.e. to assume that the deceased had consented to the removal of an organ or organic matter after death unless there is reason to believe otherwise. The basis of the bill is the position that it's more natural to assume that people want to help a fellow human in need by donating organs and organic material after death. For this reason, it's more natural for legislation to reflect an attitude of "presumed consent" rather than "presumed denial" regarding organ donation.

The bill protects people's right to self-determination over their own bodies by making it unlawful to remove organs or organic material from the bodies of deceased individuals if they have expressed opposition to it or if removal is otherwise considered to violate their will. The Office of the Surgeon General has now set up a database where it is possible to register attitudes towards organ donation and it is safest to make opposition known in this way. However, it should also be respected if it is reliably known that the deceased had expressed opposition in other ways, e.g. to the closest relative. Then organs or organic matter should not be removed from the body of a deceased individual if there were other special reasons to believe that it would have been against his will, e.g. if it was contrary to the religion he adhered to." (Alþingi 2018)

Autonomy and surveillance

- The idea of autonomy in the age of the internet and social media.
- Data collection and algorithms.
- The processing of information about people and the use of AI.

Problems with Al

- How is AI developed?
- What biases come with the AI?
- How do we get around these problems?
- The importance of open AI.

Impact on people

- In order to conclude on policy issues regarding the use of data collections and algorithms there needs to be an understanding on the use of algorithms and aims.
- These mechanisms are having a huge impact on our lives. Positive and negative.

Social factors

- Pressure in research.
- Money.
- Vulnerable groups.
- Technological advancements.
- Media and government.