

# Infralab reading group on infrastructure

Apple II – Chapter 5: Utility software & Telegraphic Imperialism – Chapter 6

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## Present

- David Palma
- Jenna Ruddock
- Niels ten Oever
- Maxigas
- Troy Etulain

## First impressions

**David:** Information and access to information were the common threads between the two chapters. Actors want to control information and are concerned about misinformation. The native aspect of India keeps coming back in Telegraphic Imperialism, the locals and the rulers-from-afar have very different perspectives on information politics. Partly because they are geographically compartmentalised, despite the communication infrastructures (irony!). In Apple II it is similar: piracy or not, floppy disk images were sometimes confusing, and they debated whether backups are just backups or financial exploitation, etc. The hacker ethic was connected to the whole homebrew ecosystem. Others showed that people who buy software should have control over their software and be able to copy/back it up.

**Troy:** One thing that struck me about “Utility software” was how much we need a shared language to navigate new spaces when we face emergent technologies. In these situations, anthropomorphising is a very attractive spontaneous options. Sometimes “The digital sun never sets on the British Empire.” Complex remapping carried about by digital communication systems, space-time compression. In both people who win are the early adopters

## Discussion

**Niels:** Crisis, place and time are the main concepts. In both chapters a crisis interrupts a long period. Main theme in Telegraphic Imperialism: What is the role of India in the Commonwealth? Three redundant routes between India and England, one subsea, all expensive, and they try to push the costs on India. ◇ Page 135 “peculiarities of the topics” – tropical termites, dead sea salinisation (in the previous chapter). Both the metropol and the periphery learned and contributes to the success of a working technology. ◇ Geographic relocation and cultural diffusion of the technology. No challenge to the hegemony of the metropolitan/technopol laboratories: this deficiency allows the technology to be managed from the centre. Surveillance

and censorship. Replace indigenous informants by an exclusive network of information flows (137-139). But what do they do with the human resources? Probably they would still need local people to source information from about the local events. Thin hand-made paper was charged double than local purchase value by the government than the thick European (lasted until 1837, until after the revolution). Establishing information control: *Vernacular Press Act of 1878*. Not via material means but discursive means: controlling the language. /OK, language is material./ ◇ Conflict between two Lords (Curson vs. Kitchner) about whether India should govern itself? One said that “The real government of India is in the House of Commons.”, the other supported Indian self-governance. Time was standardised to export this rationality from the centre to the periphery. People revolted against this centralised/standardised rhythm of time. ◇ Both the consequence and the means for information panic (page 154).

**Palma:** It is fascinating that information is not flowing only one way, from periphery to the centre. There is an open channel. The information inevitably also flows the opposite direction!

## Ideas

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☉ **IDEA:** What we could do with the book is to produce a timeline of events! And maybe some more/better maps. Produce it as a kind of new insert for the book.

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🌿 **IDEA:** What we could do all this half-digested historical information and half-gestated theoretical ideas? Write a 1-3 page long dictionary of “hypotheses on geopolitical power and digital communication networks derived from the historiography of emergent technologies”. Then, we could test the hypotheses on the next books...

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- Historians do not like theory, they like “facts”. Otherwise there would be no need to tell all these stories. But they provide ideas for theory generation, so it is very interesting.
- What language formation around technologies cycle looks like? New technology, new terminology, delay in common understanding, early adopters, etc. Documentary on the Basque says that their language
- Research ethical artificial intelligence. Google digital ethicisit. Coders and ethists need a common language to → “Contact language” of the Radar Lab at MIT during WWII: how interdisciplinary research is made possible (the good example where contact language worked). ◇ What if the contact language breaks down? → Unmanagability! Like after WWII in the AI Lab at MIT hackers could do whatever they want and their superiors did not have the means to control them, because they understood neither their language nor what that language referred to (the bad example contact language it did not work).
- Widening gap between conceptual understanding and language — with AI the distance grows from invention to social benefit?

- What comes first?
  1. engineering
  2. science
  3. regulation
  4. consolidation/commercialisation/dissemination

**Troy:** Just writing a related article on a new concept that I am proposing: “Technology, Accessibility, Inclusion, Lag (TAILS)”. → Where’s your society in terms of being able to take advantage of emergent technologies?

**David:** Apple II chapter is about “How copyright law changed in reaction to people copying”.

## References

- Concept:** “Boundary objects”.
  - Movie:** “Her”. The protagonist falls into love with an OS. But the OS has a native language that humans cannot understand.
  - Article:** <https://cacm.acm.org/opinion/i-was-wrong-about-the-ethics-crisis/>
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- Donald E. Knuth and Len Shustek. 2021. Let’s not dumb down the history of computer science. *Commun. ACM* 64, 2 (February 2021), 33–35. <https://doi.org/10.1145/3442377> (video: <https://cacm.acm.org/magazines/2021/2/250078-lets-not-dumb-down-the-history-of-computer-science/abstract> )
  - M. Campbell-Kelly, “The History of the History of Software,” in *IEEE Annals of the History of Computing*, vol. 29, no. 4, pp. 40-51, Oct.-Dec. 2007, doi: 10.1109/MAHC.2007.4407444. <https://ieeexplore.ieee.org/document/4407444>
  - M. Campbell-Kelly, “Knuth and the Spectrum of History,” in *IEEE Annals of the History of Computing*, vol. 36, no. 3, pp. 96-96, July-Sept. 2014.