

# Infrastructure reading group

Chapter 2 of Telegraphic Imperialism & Chapter 3 of Apple II Age

2024-11-26

## Present

- Andreas Baur
- Anushree Gupta
- David Palma
- Eric
- Gurshabad Grover
- Nai Lee Kalema
- Richarco Nanni
- Troy Etulain
- Yivie
- dkg

## First impressions

**Maxigas:** Both had tech details, which I usually miss and enjoy.

**Eric:** TI — How governmentality increased under the zeitgeist of *laissez-faires*. I don't agree how ideology is pictures by the author as a policy-determining force. How UK handled the famine in Ireland, it was same ideology but different policies.

**Gurshabad:** TI is interested in tech/legal development, especially the Telegraph Act (final amendment in 1876) — that is still used as a basis for telco policy making today! What I liked and like to discuss was this: *centralisation as a response to the Rebellion of 1876*, which ended up *overregulating the market*.

**dkg:** TI was curious about what is the response to the rebellion. Duplication is the official response, which in engineering terms is *redundancy*. Like Internet anti-nuke design – routing around nuclear damage at the end of the Cold War. There is a parallel there in the fear of the governing class. A2A I liked for this: how matter-of-factly the author laid out the institutional advantages behind Woz/Jobs, their privileges.

**Niels:** I was resistant to the arguments of both chapters. TI came with theories and facts that you can put together, but in A2A was a bit overprocessed. TI chapters might have been different papers. This chapter is about “governmentality” and the previous one was about “informational panic”. *Different kinds of disciplining: space, time, signals, people, etc.* Elegant categorial analysis.

**Anushree:** “To add to that point about *historicising* and acknowledging advantages that are conveniently hidden in popular discourse, I also really appreciated the Apple II Age book talking about the adjacent cultural contexts, whether of a university space providing the first set of consumers or the hobbyist culture that supported the development process. However, I would have really liked some more discussion and attention to the details within these spaces and how exactly they morphed the process too. Gender is one thematic I find particularly missing and would have loved to see more of that.”

**Nai:** TI — how the book articulates the story through people. It was an interesting way to dive into the material. It was interesting to see how the telegraphy contributed to imperialism in various ways. It was also interesting to see how workers were hidden by the infrastructure, but it was eventually it was about work practices [work process]. The pricing dilemmas were also interesting. Who would be doing what? How jobs were allocated? Top-tier people from England, and middle-managers mixed, and lower caste of workers from local Indian territories. A2A — Institutional analysis is good, but it could have been more about privileges (location, time, white, male, etc.). How exactly these people ended up at those places? The accumulation of disadvantages in other places, how the conditions were set (for example, schools there were financed through property taxes and donations from parents).

**Niels:** Question to Nai. Was A2A in response to the high-profile well-publicised Steve Jobs biography?

**dkg:** Lyrics: “Peggy Seeger: Gonna be an Enginner”.

**Troy:** Personality driven dynamics — the differences between the two personalities came out great in the A2A book.

**Anushree:** The “innovator’s others” (as Lily Irani calls them) should get more attention as well, but they surface sometimes in this A2A chapter.

## Discussion

**Niels:** Would you see standardisation as a disciplining of technology? IETF hackathon, for example (wearing the T-shirt now). Grinding out variations so that technologies can be interoperable, yet used for power at the same time. It is remarkable how much power the standardisation process actually has in terms of disciplining. It is a subtle way of control that mystifies who is doing the disciplining. In TI when you start pricing per words, people start to make up new (more efficient) words.

**Gurshabad:**

**Niels:** Telegraph transformed the UK Empire from colonial to imperial power, gave rise to stockmarket trading. Like high-freq. trading!

**Niels:** Shannon’s information theory’s limits to determine the perfect transmission.

**Anushree:** I wanted to ask Gurshabad Grover to elaborate on his earlier point about insights from the Telegraph Act and how this chapter has relevance for thinking about its manifestation and ramifications for legality and policy making in contemporary times as well, especially in the Indian context.

**dkg:** Reminds me of how AI today is used as a disciplining force in labour negotiations. Today machines can do the job of the telegraph signaller.

**Troy:** DKG, Re: Standardization, IETF hackathons and computer clubs—the evolutionary pattern in most cases seems to be from informality to formality, and along the journey the players change (especially when capital gets involved). Planets are formed after big bangs. Clubs & rules form after people invent a game on the playground. And there is so much chance at the informal stage. The direction of a new/particular technology and its impact on/use in society is a bit of chance... Reactions?

**Gurshabad:** Telegraph Act is still in place in India, justifying interception and shutdown operations, and applied actively.

**Anushree:** Sorry for the mouthful of a question, just wanted to pick your brain about what you thought this chapter does to think more about it. This history definitely helps contextualise the more recent developments with the Telecom Act, that's what I was thinking about too. Thanks for that answer!

**Gurshabad:** I would have certainly liked more details about it – but it's perhaps a question that I was curious about going in (not that the author has to answer it). Personally, I didn't connect the dots that lots of these provisions were enacted after and in response to the 1857 rebellion (even though the timeline makes complete sense, of course!) — I wrote about the Telecom Act recently, but I really don't think it differs significantly from the Telegraph Act in principles and enforcement of surveillance/censorship. Just changes the language maybe because the Government was tired of retrofitting digital tech into the definition of "telegraph".

**dkg:** DKG, Re: Standardization, IETF hackathons and computer clubs—the evolutionary pattern in most cases seems to be from informality to formality, and along the journey the players change (especially when capital gets involved). Planets are formed after big bangs. Clubs & rules form after people invent a game on the playground. And there is so much chance at the informal stage. The direction of a new/particular technology and its impact on/use in society is a bit of chance... Reactions?

**dkg:** QUIC is a good example that was built by and for the big data centre operators, but now people pick it up for peer-to-peer communication.

**Niels:** Last sentence of the *Technologies of Empire* book — technologies create new means of control, but also subversion. But the voice of anti-imperial resistance or local misusers is missing.

**dkg:** The circumstance is included in the book, but only from the perspective of complaints from management about workers.

**Gurshabad:** The telegraph was only supporting Latin script and was expensive for normal Indians. They even had to adopt white-sounding names in order for their messages to be processed. By design, the system was not meant to be used by everyday Indians.

**Nai:** This part was interesting [/ important] – locals got better service when using white-sounding names, which the administration is trying to eliminate by demanding real name signatures.

**David:** Engineers optimise. Often that means finding common practices to work together, which eliminates diversity. Converging to one interface is super important for things to work well.

**Nai:** Who are things optimised around and why would I ask.

**Troy Etulan:** The telegraph, the fax machine, etc. becomes junk when the next thing comes around. Yet these outcomes are historically contingent: personalities and luck play a huge role in shaping the outcomes!

## **Conclusion**

Excellent session, with balanced and varied contributions from people with very specific backgrounds and knowledges!