### oueees-202006 topic 09: Social implication of cloud computing

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#### Lecture notes and reporting

- https://github.com/jj1bdx/oueees-202006-public/
- Check out the README.md file and the issues!
- Keyword at the end of the talk
- URL for submitting the report at the end of the talk

## Topic of this video: Social implication of cloud computing

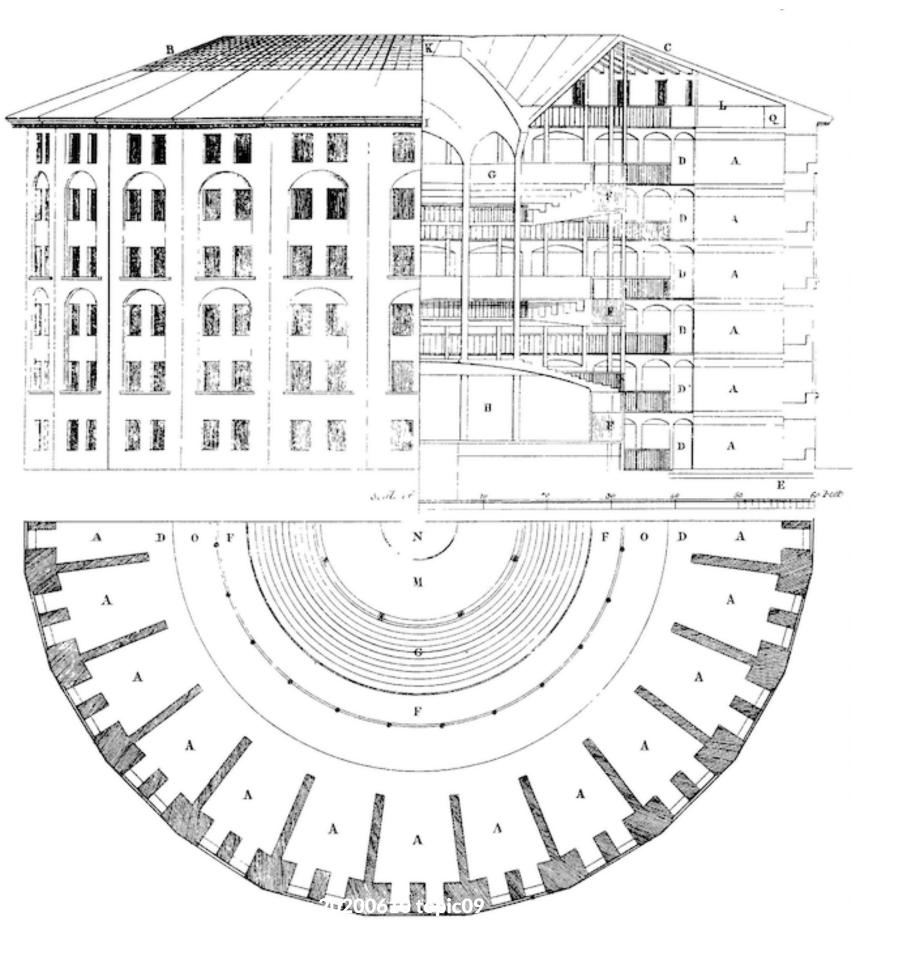
# Centralized social behavior accerelated by cloud computing

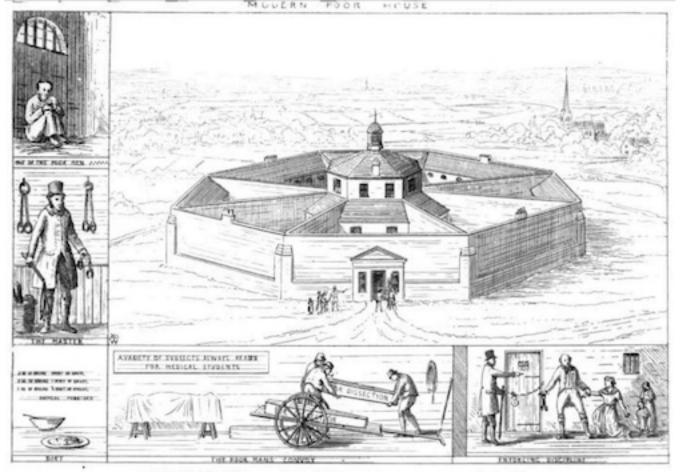
- Sharing everything no privacy
- Panopticon <sup>1</sup> style of governance, filtering, censorship, or autocracy
- Complete externalization of resources, leading to no personal control

<sup>&</sup>lt;sup>1</sup>n. a circular prison with cells arranged around a central well, from which prisoners could at all times be observed. (New Oxford American Dictionary, Apple macOS 10.13.6)

#### Presidio Modelo: a panopticon prison

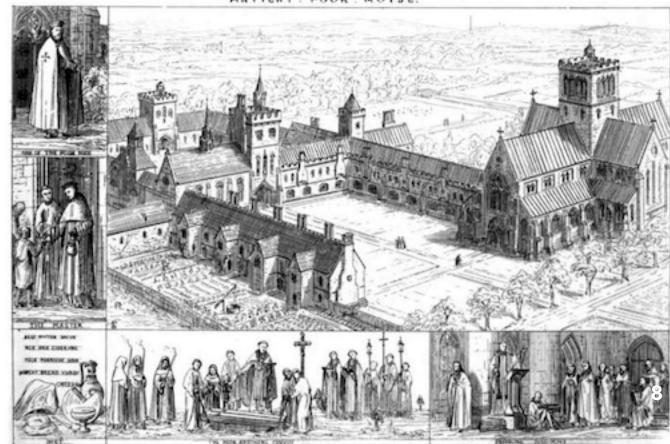






CONTRASTED RESIDENCES FOR THE POOR





#### INGSOC: the slogans<sup>2</sup>

- War is peace
- Freedom is slavery
- Ignorance is strength
- Independent thinking = thoughtcrime

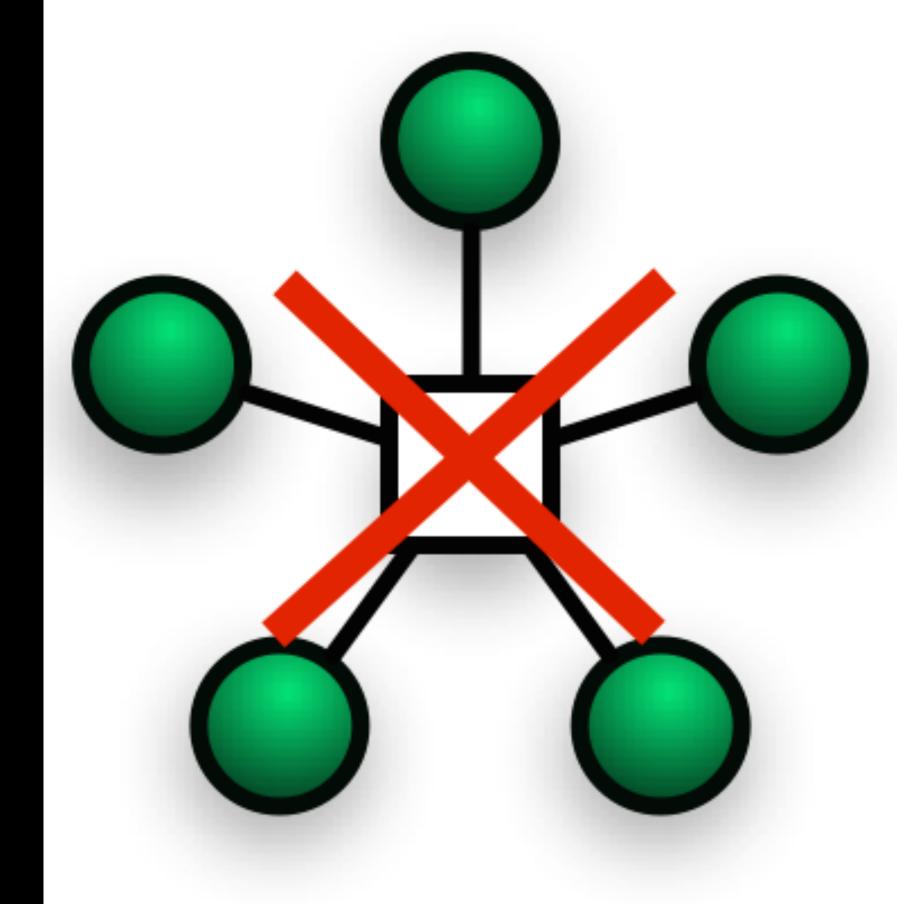
NOTE: this is a fiction!

<sup>&</sup>lt;sup>2</sup> George Orwell, "Nineteen Eighty-Four", 1949.

# Why cloud computing has become so dystopian? -- because we have sold freedom for convenience

- Ubiquitous/global accessibility
- Concentrated data for easy analysis
- Easy control of the information flow
- No extra cost for sharing
- No need to think about where the information locates

The inconvenient truth of centralized systems: what if the core/cloud fails?



#### Inconvenience of centralized systems

- Ubiquity or no accessibility
- When the core fails, no alternative
- When the core loses data, no backup
- The system performance is restricted by the capability of the core
- Endpoint systems will lost all capabilities

#### Centralized systems are not sustainable

...then how cloud computing systems manages the sustainability?

# Distributed systems provide sustainability and resilience against failures

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