beyond digital literacy

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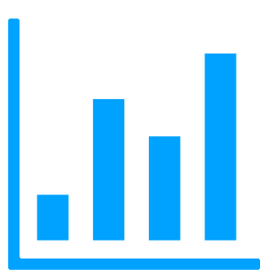
Once upon a time there was a thing called literacy…

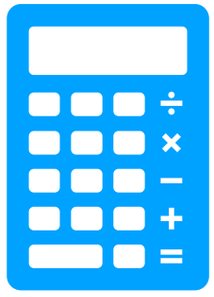
THE UNCANNY X-LITERACIES

Why ‘literacy’?

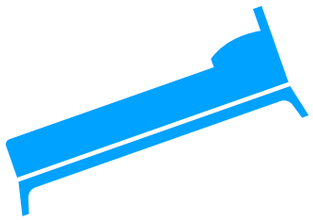
Reading and writing:
essential technological skills (techniques)
and knowledge needed for participation
in almost every other aspect of society

Actual numeracy

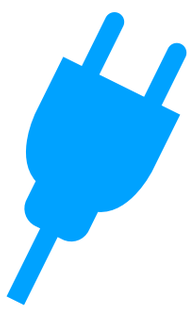




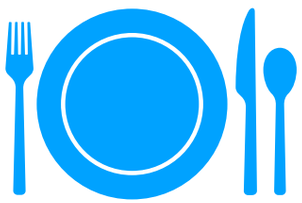
Why not other essential skills?



Not complicated (can be acquired by imitation and/or interaction alone)



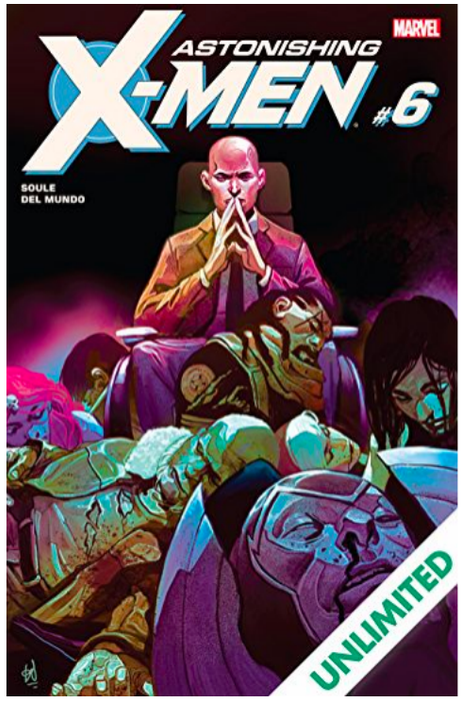
and/or



Not foundational

But now…

THE UNCANNY X-LITERACIES



x - literacies

(nb. I made none of these up!)

- Digital
- New
- New media
- 21st Century
- Multi
- Music
- Legal
- Computer
- Data
- Game
- Health
- Financial
- Civic
- News
- Ethical
- Foundational
- Visual
- Technological
- Social
- Social media
- Critical
- Multimedia
- Cultural
- Leadership
- Information
- Tool
- Nautical
- Global
- Economic
- Historical
- Design
- Play
- Library
- Multicultural
- Migrant
- Human rights
- Language
- Scientific
- Silicon
- Web
- Content
- Interdisciplinary
- Racial
- Academic
- Multilingual
- Teaching
- Personal
- Occupational
- Rhetorical
- Emotional
- Social justice
- Multiple
- Local
- Maker
- Tertiary
- Teen
- New leadership
- Classroom
- Future
- Earth
- Trans
- Insurance
- Medicine
- Research
- Affective
- Storytelling
- STEM
- Multimodal
- Community
- Adolescent
- Network
- Navigation
- Negotiation
- Appropriation
- Civic media
- Race
- Sports
- Urban
- HipHop
- Geo
- Environmental
- Architecture
- Garden
- Gender

Issues with digital (and many other) literacies

Diversity

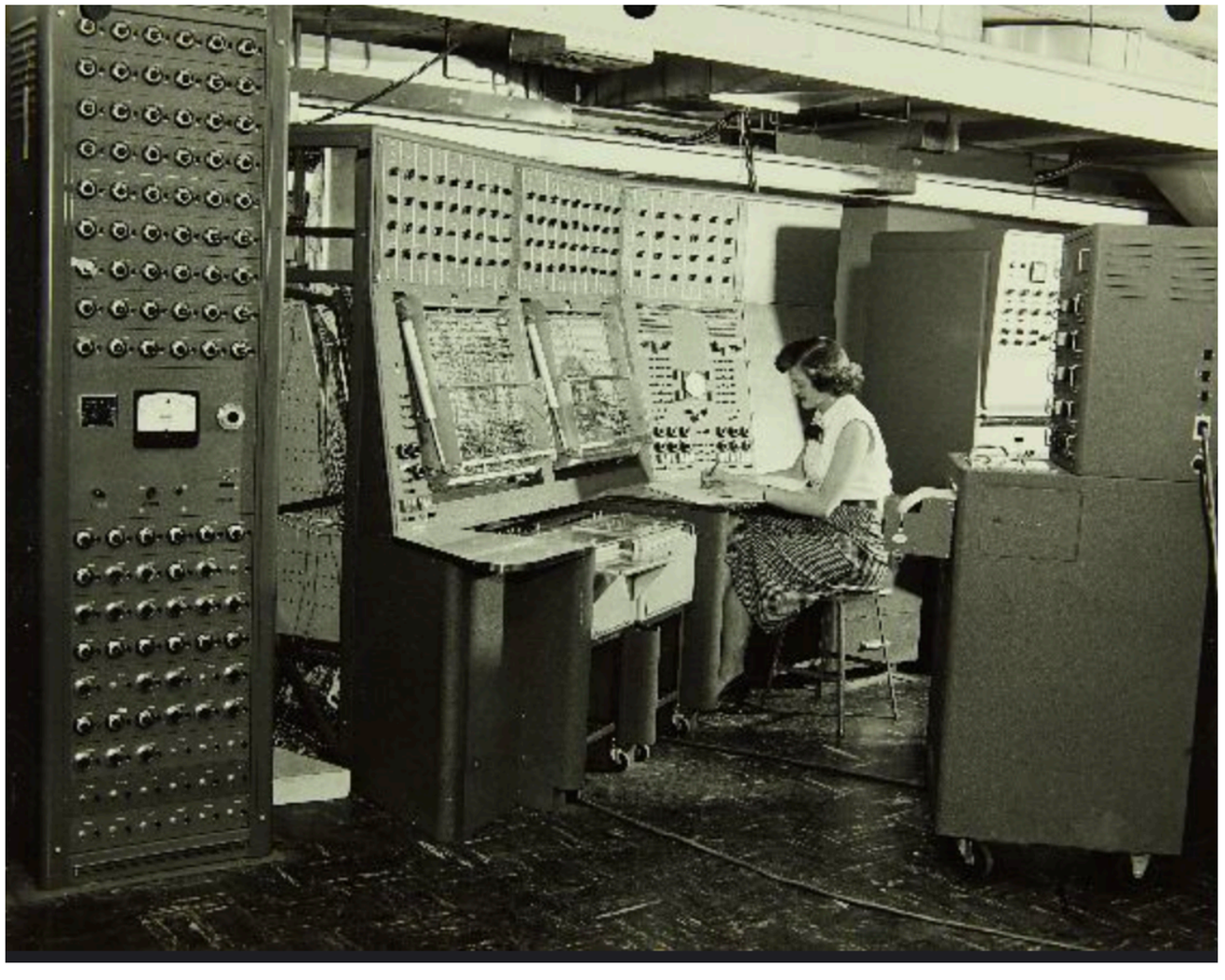
Knowing how to manage a web server is almost no use at all in knowing how to use AutoCAD

Hidden orchestration

Do you know the physical location on the disk/in the silicon where your file is stored? Do you know how? Could you build it yourself?

Transience

Do you even know what CP/M is? Or how to write a config.sys? Or how to write binary code on a punchcard for a VMS operating system?



New (absurd) literacies

e.g. Jenkins's New Media Literacies **are (mostly) not literacies by any stretch of the imagination….**

Play
Performance
Simulation
Appropriation
Multitasking
Distributed Cognition
Collective Intelligence
Judgement
Transmedia Navigation
Networking
Negotiation
Visualization

Jenkins, H. (2006). Confronting the Challenges of Participatory Culture: Media Education for the 21st Century. An Occasional Paper on Digital Media and Learning. Retrieved October 2014, from http://files.eric.ed.gov/fulltext/ED536086.pdf

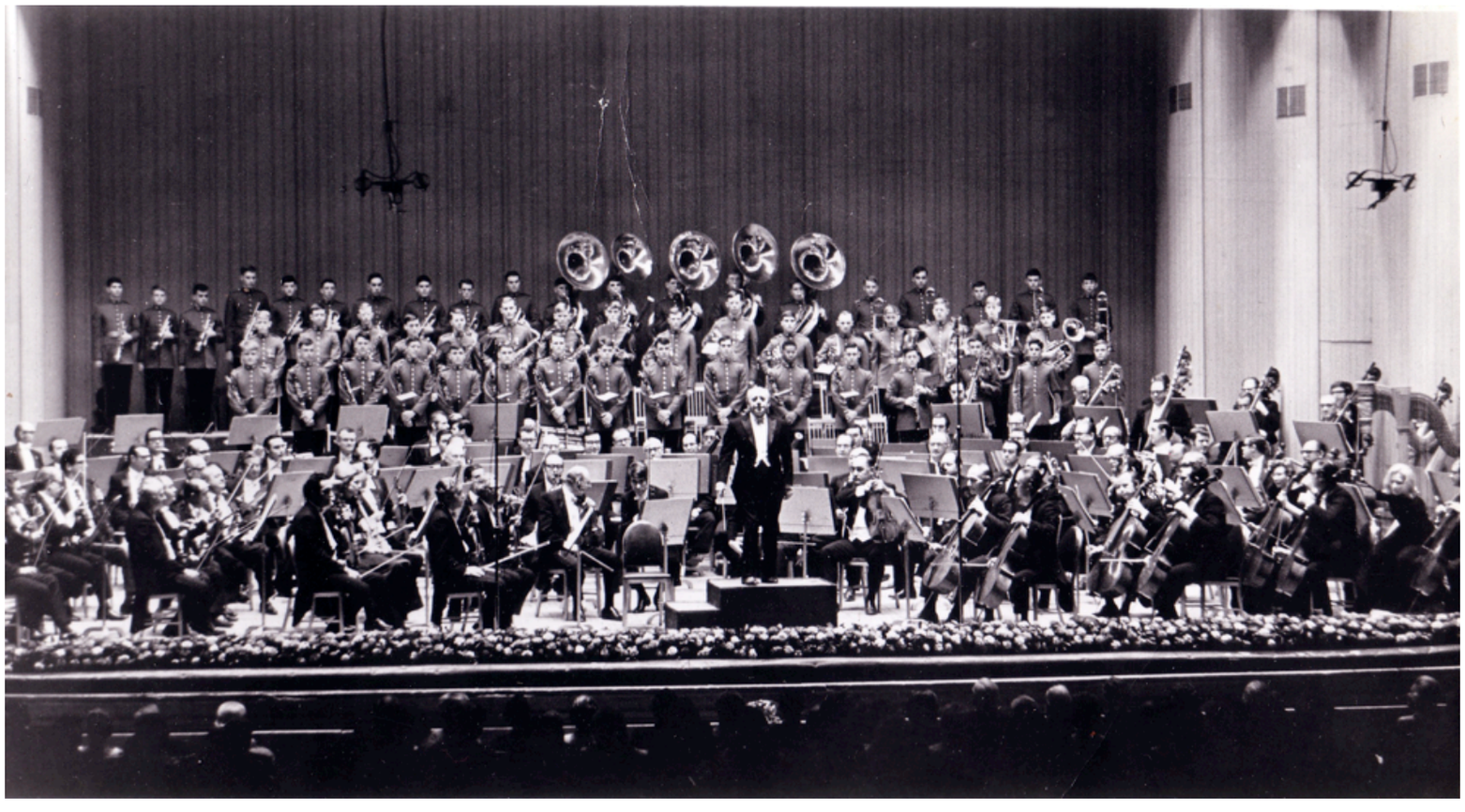
Proposed definition:

The hard techniques needed to operate the technologies that are required for any given culture

tech·nol·o·gy/tekˈnäləjē/

“the orchestration of phenomena to some use”

W. Brian Arthur



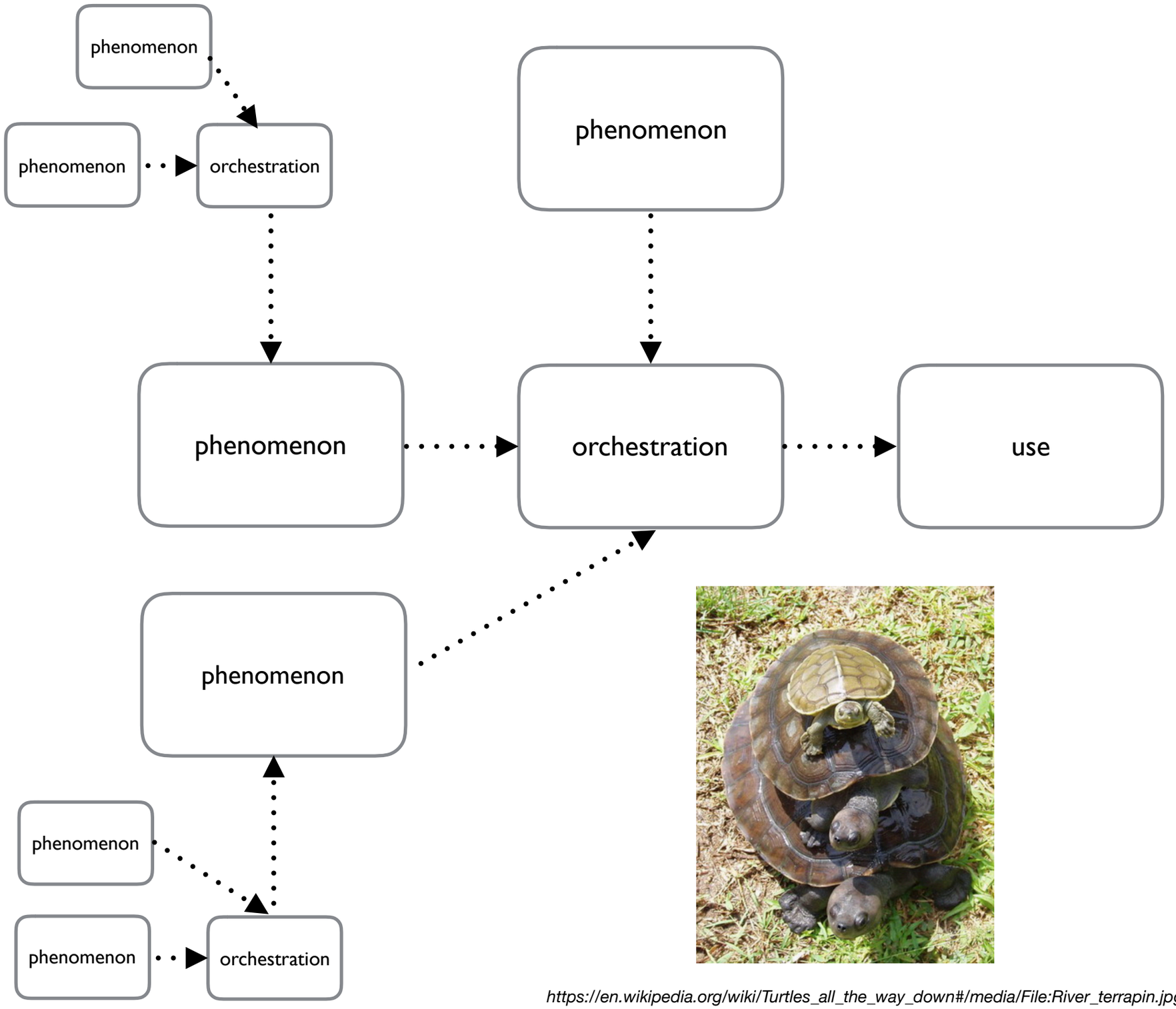
Arthur, W. B. (2009). *The Nature of Technology: what it is and how it evolves*. New York, USA: Free Press.

Technologies are assemblies

technologies are made of technologies

technologies are orchestrated assemblies

it’s turtles all the way down



https://en.wikipedia.org/wiki/Turtles_all_the_way_down#/media/File:River_terrapin.jpg

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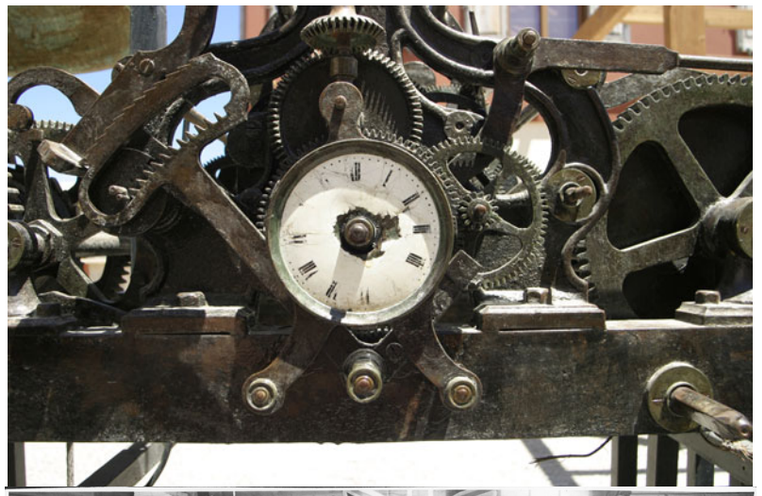
Hard technologies

Orchestration of phenomena embedded in the technology



May need skill to use them *correctly.*

Soft technologies

http://commons.wikimedia.org/wiki/File:François_Barraud_-_Palette_et_Pinceaux.jpg

Active orchestration of phenomena by users

Skill needed to use them *well*

harder

a continuum

softer

ease of use

speed

accuracy

replicability

precision

hard is easy

soft is hard

control

creativity

diversity

flexibility

resilience

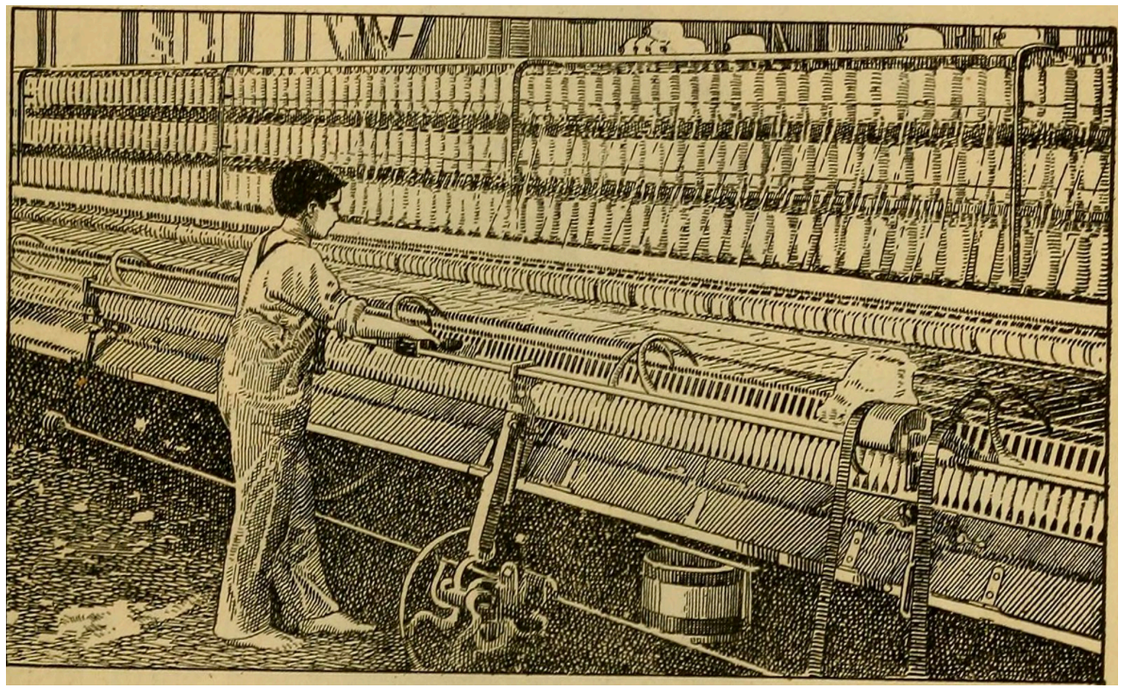
a continuum

pre-orchestrated

orchestrated at run-time

Harder literacies

Playing our part correctly



e.g. winding a watch, filling a form, citing a paper, spelling, addition, long division

Technique can be perfected

Softer literacies

Playing our part well

e.g. structuring an essay, drawing a picture, manipulating a pen, handwriting

Technique can always be improved, change, evolve, be subverted

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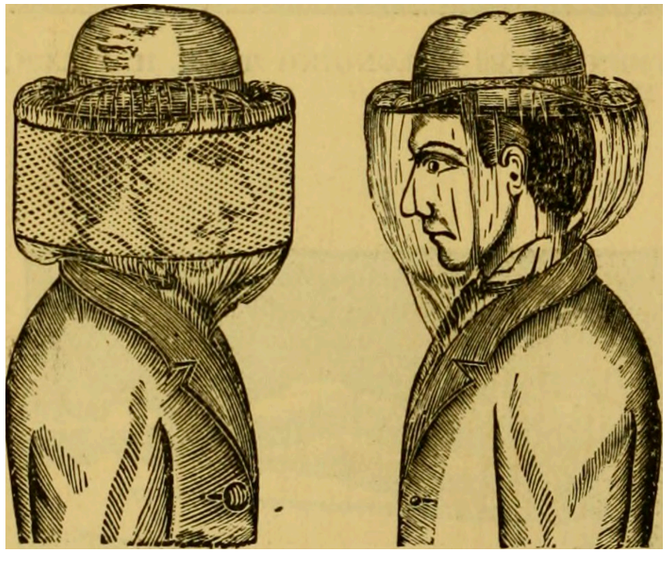
Foundational

The (mostly) invariant techniques and knowledge needed to operate within a given culture



A few of my cultures

English speakers
Residents of Vancouver
Cinema goers
Philosophers
Lovers of trashy sci-fi
Social media researchers
Programmers
Users of Scrivener
People in my condo
Educational researchers
Residents of Canada
Researchers of motivation
Academics
Singers
Technology researchers
Server administrators
Travellers
Teachers
Guitarists
E-learn committee members
Photographers
Authors
Saxophonists
Athabasca University employees
Cyclists
Sailors
Learning designers
Europeans
Reddit members
Brits
Athabasca University professors
E-learning researchers
Beer drinkers
J-horror enthusiasts
Immigrants
Jazz musicians
Systems researchers
Performers
Twitter users
K-horror lovers
Mac users
Users of 3D printers
Cat owners
Atheists
Amazon Prime members

Picking boundaries

Culture

- A distinct set/community (collection of people able to communicate)
- Shared problems and purposes
- Shared tools, vocabularies, knowledge

Techniques and technologies are always:

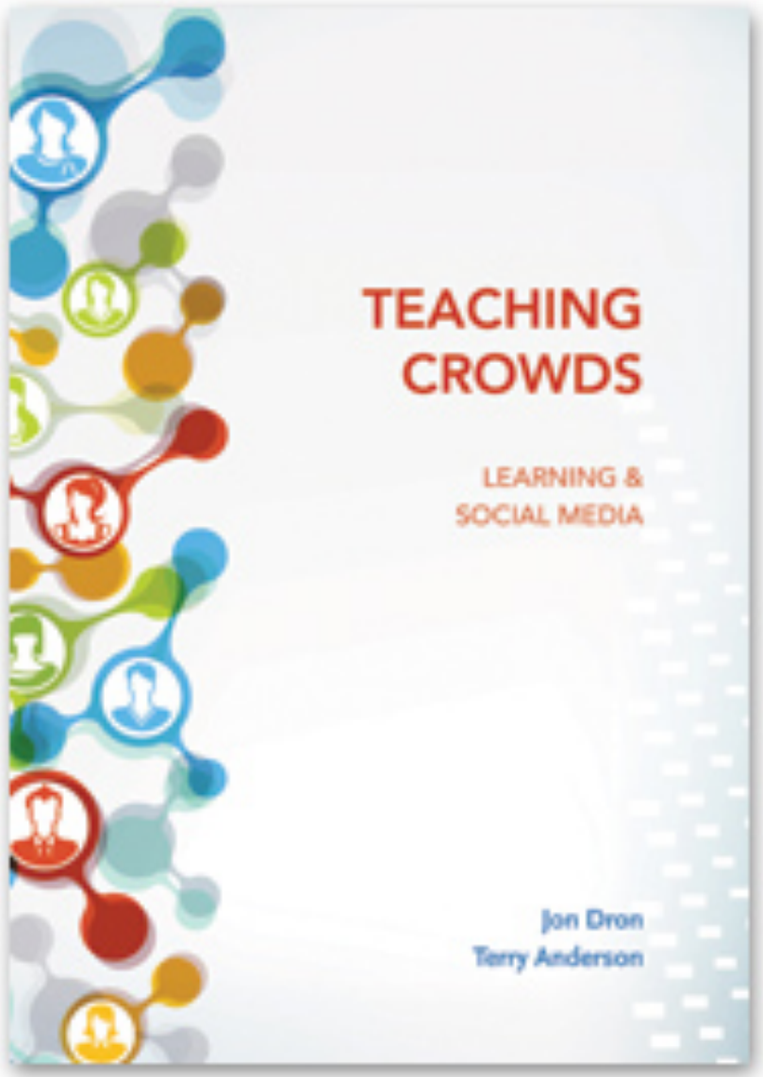
- Situated
- Evolving

Never:

- Isolated
- Fixed
- Generic

What are *our* literacies?

Does the E-Learn Community share a culture or cultures? What hard technologies do we need to know and use?



https://teachingcrowds.ca/

Thank you

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