Retracing digital freedom as pattern learning for life

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Outline

How digital freedom maps onto life and wicked problems

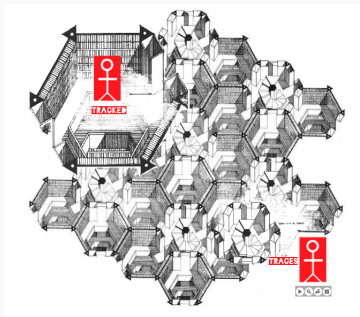Digital freedom as pattern design learning

Pattern-based learning components

Free software as pattern learning for life

References/ Resources

How digital freedom maps onto life and wicked problems

Wicked problems

- Wicked: hard-to-solve, socio-cultural (Rittel)
- Dark 24/7 gamed algorithmic governance, short-circuits dreaming, deciding; interpreting (Stiegler, O'Neil, Zuboff)
- Data banks enlarge collective memory, not accountable to people in the flesh: Monopoly over speech (Ricoeur)

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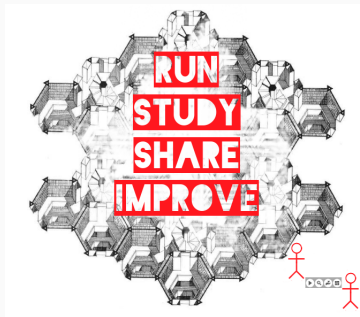
- Visualization: Infinite libraries (Toca Fernández)
- Precedents: Method of loci, paideia, Aristotle, Bacon ... Engelbart
- Ongoing learning (Fawns): free software as tool and method: Create, share
- Contributory economy (Ars Ind.); values values, surprising (Stiegler)

Digital freedom as pattern design learning

Digital freedom as pattern design learning

- Alexander: Pattern design
- Pattern learning: Any scale (micro, macro..);
  wide application but customisable, human-centered
  configuring environment to what should be cared for,
  is worth doing (cf. Goodyear, Alexander)
- Digital tools, people, activities, tasks, outcomes

Designing for possibility

- cf. Dori Tunstall
- What resources do I have?. . . . . The learning plan
- How do I need to position things in relationship to one another?. . . . Tools, resources, people, activities, outcomes
- What are the specific affordances that are easy for people to pick up versus things that need to be explained more deeply?. . . . . Modeling vs. learners helping learners
- How do I structure things so people can guide themselves through a process in the way that you navigate through a page?. . . . . Directional pattern-design

Pattern-based learning components

Sample course components

Interdisciplinary project/problem-based learning can inquire into the design principles behind (free) software tools

- Culture/Graphic design: Make a site on digital freedom: Ideate, edit, discuss respective "epistemic tools" or decolonizing UX for e-quality (Beaty)

- Writing/Tech: Writers try to understand (free software) package/documentation, asking techies questions modeled after pointers in technical writing handbooks

- Business/Journalism: Explore free software as contributory economy: create and report on business model canvas

Other learning components

- Game/book narrative: simulating/verifying, complicating/ solving free software problems (nand2tetris, fate-srd)
- Affordances: Digital gardening (Appleton, Neocities) as gateway to digital creative control; learner contributions (Rain-1)
- Own creative networks for shared, augmentative thinking (Engelbart, Bush), wiki knowledge management, search engines to co-create, discover digital knowledge (c.f. Nelson, Strasser; Meatball Wiki, Lieu, Marginalia) See: Schroeder, Linvega & Devine, Bandali

More learning components

- Software vs. law, economics, politics, climate:
  How do we choose the 'right' digital tool? What effects
  or consequences does/can this choice have? (FastCo.)
- Ethical dilemmas: (Gardner, Wayner, Atwood)
  Does code support the creators and consumers? What is
  the damage of coding just for today? Which licenses
  support continued compatibility? Is money the only value?
- Technical dilemmas: CS taught using free software
  (E-quality of opportunity to co-create, Beaty) - post AI?
- Pains/gains to exploring free software:
  Software imprinting dilemma (Atwood);
  Network effects, switching costs, interop (Doctorow);
  Personal learning networks (Rheingold, Strasser)

- Supporting actors as members and observers who can reconceptualize environment (Medvedeva)
- Increasing range of missing vocabulary, mental models, range of uses/problems in integrated tech use (Swarts)
- Reflective Zines about digital tools for self-expression on relation of tech, design, power, social responsibility (ac4d)

Example of ICT design

- Stiegler's MOOC:
- Hermeneutic community representing different epistemic domains develops and exchanges information
- Standardized annotation language (cf. Nelson)
- Algorithm analyzing convergences, divergences suggests discussion points
- On social networking software, groups form and debate, consolidate similarities, differences into collective memory
- Could be used to explore and model digital freedom
- Contributory social circuit of exteriorized knowledge

Free software as pattern learning for life

- Retracing: Going back over, in an attempt to rediscover
- Knowledge as taking care of wicked problems (cf. Goodyear)
- Configuring (macro/micro) tools, relations, structures to leave co-creative digital traces (Tunstall, Goodyear)
- Free software as a good pattern for life, values values, sur-prise

Thank you free software developers, maintainers, contributors, community, LibrePlanet organizers...
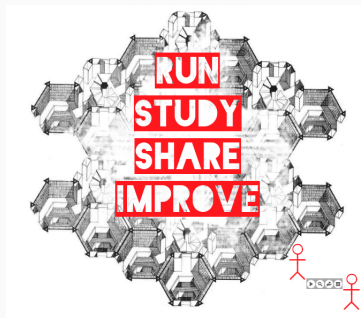
- Which tools do you use (e.g.) What are your resources, relations, activities?
- Do you make affordances for new types of learners/learning?
- How can free software cultivate cultural, social, economic possibility?
- What are your desired free software outcomes?

References/ Resources

References

- Alexander, C. (1993). A Foreshadowing of 21st Century Art: The color and geometry of very early Turkish carpets. New York: Oxford University Press.
- Alexander, C. (1977). A Pattern Language. New York: Oxford University Press.
- Alexander, C. (1964). Notes on the Synthesis of Form. Cambridge: Harvard University Press.
- Appleton, M. (2021). A brief history and ethos of the digital garden.
- Aristotle. The Categories. Gutenberg.org.
- Ars Industrialis, (n.d.). Economie de la contribution, Translation. Arsindustrialis.org, technophilia.wordpress.

References

- Atwood, J. (2007). The coming software apocalypse. Codinghorror.com.
- Atwood, J. (2007). The software imprinting dilemma. Codinghorror.com.
- Austin Center for Design. (2022). Student Blog. ac4d.com.
- Bacon, F. (1901 [1605]). Advancement of Learning. New York: P. F. Collier.
- Bandali, A. (2022). The Net Beyond the Web. Libreplanet.org.
- Beaty, L., Hodgson, V., Mann, S., & McConnell, D. (2002). Towards E-quality in networked e-learning in higher education. Networkedlearningconference.org.

References

- Borges, J. (1962 [1941]). The library of Babel. Archive.org.
- Bush, V. (1945). As we may think. The Atlantic.
- Doctorow, C. (2021). Right or left, you should be worried about big tech censorship. EFF.org.
- Engelbart, D. (1962). Augmenting Human Intellect: A conceptual framework. Menlo Park: Stanford Research Institute.
- Fast Company. (2021). 32 experts on the most urgent matters facing design today. Fastcompany.com.
- Fate.srd. (n.d.). The phase trio. Fate.srd.com.
- Fawns, T. (2019). Postdigital education in design and practice. Postdigital Science and Education,1(1),132–145.

References

- Finck, T.(n.d.). Blackout font. SIL Open Font License (OFL) listed as GPL compatible. 1001fonts.com.
- Gardner, H. (n.d.). The Good Collaboration Toolkit. Thegoodproject.org.
- Geertz, C. (1973). The Interpretation of Cultures. New York: Basic Books.
- Goetz, G. (2022, upcoming). Re-presencing the digital trace in networked learning design. Phenomenology and networked learning. Symposium. Networked Learning Conference 2022. Sundsvall, Sweden.
- Goetz, G. (2021). A song of free software for Stiegler. Educational philosophy and theory: Bernard Stiegler and Education, 52(9).

References

- Goodyear, P. & Retalis, S. (2010). Learning, technology and design. In Goodyear, P. & Retalis, S. (Eds.). Technology-Enhanced Learning: Design patterns and pattern languages, 1–27. Roterdam: Sense Publishers.
- Linvega, D. & Bellum, R. (2006-). XXIIVV. Sourcehut. Lieu. Clbgh.org.
- Marginalia. (n.d.). About. Marginalia.nu.
- Markauskaite, L., & Goodyear, P. (2017). Epistemic Fluency and Professional Education. Dordrecht: Springer.
- Meatball Wiki. (n.d.). Meatball Wiki. Meatballwiki.org.
- Medvedeva, T. (2018). An extended systems approach to change in labor relations during the emergence of a new economy. Acta Europeana Systemica 8, 275-284.

References

- nand2tetris. Schocken, S. & Nisan, N. nand2tetris. nand2tetris.org.
- Nelson, T. (1974). Computer Lib/Dream Machines. Ted Nelson. Archive.org.
- O'Neil, C. (2016). Weapons of Math Destruction. New York: Crown.
- Rain-1. (2022). How to make small tweak to free software. Github.com.
- Rheingold, H. (2010). Shelly Terrell: Global netweaver, curator, PLN builder. Connected Learning Alliance.
- Ricoeur, P. (1988). Time and Narrative, III. Chicago and London: University of Chicago Press.

References

- Rittel, H. & Webber, M. (1973). Dilemmas in a general theory of planning. Policy Sciences 4, 155-169.
- Schroeder, A. (2022). 2202-02-08 NNCP distributed text. Alexschroeder.ch.
- Stiegler, B. (2014). Stiegler text. Leuewn University.
- Stiegler, B. (2018). The Neganthropocene. Open Humanities Press.
- Strasser, M. (2021). The business of extracting knowledge from academic publications. Markstrasser.org.
- Strasser, M. (2019). Web annotation: a short dive. Markstrasser.org.
- Swarts, J. (2018). Chapter three. Wicked, Incomplete and Uncertain. Logan: Utah State University Press.

References

- Toca Fernández, A. (2009). La biblioteca de Babel: Una modesta propuesta. Casa del Tiempo 24(4), 77-80. Images remixed with permission but reading the paper is highly recommended.
- Trocmé-Fabre, H. (1999). Réinventer le métier d'apprendre. Paris: Éditions d'organisation.
- Tunstall, D. (2019). Respecting our relations. Jacob's Institute for Design, Medium.com.
- Wayner, P. (n.d.). 12 ethical dilemmas gnawing at developers today. Infoworld.com.
- Zuboff, S. (2019). The age of surveillance capitalism. New York: Public Affairs.