Interim Report: FOSH Literature Review

Ali Raeisdanaei, Jingyue Zhang, Tiantian Lin, Ziqian Qiu

1 Introduction

What was our original project briefly? What did we learn since our proposal?

2 Sections

Headings and subheadings showing the major divisions of the literature review, methods, and expected results from the application of each method as well as overall. A brief summary of what will go in each subsection, including the references to be discussed in each subsection of the literature review. The major references you will rely on.

3 Appendix A

Appendix A: the changes you've made to your project (e.g., refining RQs, clarifying scope, resolving vagueness, etc) according to the comments/feedback you received from your classmates

4 Appendix B: TODOs

1. Divide up the reading between all four members 2. Actually do the reading Design a literature map Summarise briefly about each paper read 3. Summarise all types of hardware found (personal, scientific, embedded or specialised) Collect all licences found for the hardware 4. Find any sellers or distributors of these hardwares. Some hardware may not be published scientifically, but they are FOSH 5. Find benchmarks to compare the hardware 6. Find state-of-the-art in FOSH and nonFOSH from each category

Later on we would have to analyse our readings and notes to determine the challenges, and future predictions, ...

References

[1] Rafaella Antoniou et al. "Defining success in Open Source Hardware Development Projects: A Survey of Practitioners". In: *Design Science* 8 (2022). DOI: 10.1017/dsj.2021.30.

[2] Rafaella Antoniou et al. "Identifying the factors affecting the replicability of open source hardware designs". In: *Proceedings of the Design Society* 1 (2021), pp. 1817–1826. DOI: 10.1017/pds.2021.443.

[3] Kerstin Balka, Christina Raasch, and Cornelius Herstatt. "The effect of selective openness on value creation in user innovation communities". In: *Journal of Product Innovation Management* 31.2 (2013), pp. 392–407. DOI: 10.1111/jpim.12102.

[4] Jérémy Bonvoisin and Robert Mies. "Measuring openness in open source hardware with the open-O-meter". In: *Procedia CIRP* 78 (2018), pp. 388–393. DOI: 10.1016/j.procir.2018.08.306.

[5] Jérémy Bonvoisin et al. "How participative is open source hardware? Insights from Online Repository Mining". In: *Design Science* 4 (2018). DOI: 10.1017/dsj.2018.15.

[6] Jérémy Bonvoisin et al. "Standardisation of practices in open source hardware". In: *Journal of Open Hardware* 4.1 (2020). DOI: 10.5334/joh.22.

[7] Jean-François Boujut et al. "Open source hardware communities: Investigating participation in design activities". In: *Proceedings of the Design Society: International Conference on Engineering Design* 1.1 (2019), pp. 2307–2316. DOI: 10.1017/dsi.2019.237.

[8] Jason Xinghang Dai et al. “Issues and challenges of knowledge management in online open source hardware communities”. In: *Design Science* 6 (2020). DOI: 10.1017/dsj.2020.18.

[9] Daniel Kelly. *GNU’s Not Unix (v1.2)*. Online. 2022.

[10] Zhuoxuan Li and Warren Seering. “Does open source hardware have a sustainable business model? an analysis of value creation and capture mechanisms in open source hardware companies”. In: *Proceedings of the Design Society: International Conference on Engineering Design* 1.1 (2019), pp. 2239–2248. DOI: 10.1017/dsi.2019.230.

[11] Zhuoxuan Li et al. “Why open source?: Exploring the motivations of using an open model for hardware development”. In: *Volume 1: 37th Computers and Information in Engineering Conference* (2017). DOI: 10.1115/detc2017-68195.

[12] *Open Source Hardware (OSHW) Statement of Principles 1.0*. May 2021. URL: https://www.oshwa.org/definition/.

[13] Joshua M. Pearce. *Quantifying the value of Open Source Hardware Development*. Mar. 2019. URL: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3331131.

[14] Christina Priavolou and Vasilis Niaros. “Assessing the openness and conviviality of open source technology: The case of the WikiHouse”. In: *Sustainability* 11.17 (2019), p. 4746. DOI: 10.3390/su11174746.

[15] Richard Stallman. *Free software free society: Selected essays of Richard M. Stallman*. Vol. 3. Free Software Foundation, 2015.