

Finding the *emic* in systemic design

RSD7: Models and processes of systemic design

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Objectives



- **Advance a conversation about emic vs etic perspectives in systemic design**



- **Provide a framework to analyze the perspective of a given systemic design project**



- **Test the framework via case studies**



- **Explore conclusions drawn from the application of the framework**

Context



- **Design is consciously empathetic (e.g., Kimbell, 2011)**



- ***But!* Systemic design work, at scale, tends to be steps removed from empathy...**

- By bringing the system into the room, do we suspend it from reality?



- **What are the risks of this removal?**

- Selection biases
- Lack of context
- Others?

Context

- **Etic vs. Emic**

- **Originated with Kenneth Pike (a linguist; Harris, 1976)**

- What are the *units* that make up behaviour?
 - Extending how we speak into how we *do*
 - Since extended from speech to orientations of research



- **Emic: *from within.***

- How are researched events understood from the minds of the researched?



- **Etic: *from the outside.***

- How are events understood from an observer?

- **How might we enrich our emic/etic critique of systemic design processes?**

Developing a framework for emic evaluation

1. **Geertz (1973): what does emic *process* look like?**
2. **Creswell & Miller (2000): what do emic *principles* look like?**
3. **Hold up a systemic design project or proposal and compare it against this process and these principles**

A framework for emic evaluation



Acknowledge initial impressions



Capture speech, behaviours, events, and artifacts



Construct meaning



Self-appraise sufficiency of capture and construction of meaning



Triangulation



Disconfirming evidence



Researcher reflexivity



Prolonged engagement



Member checking and collaboration

Testing the framework

- **Methodology**
 - Case studies
 - Phenomenological hermeneutics

Testing the framework: Public procurement at the University of Toronto (Ryan & Leung, 2014)

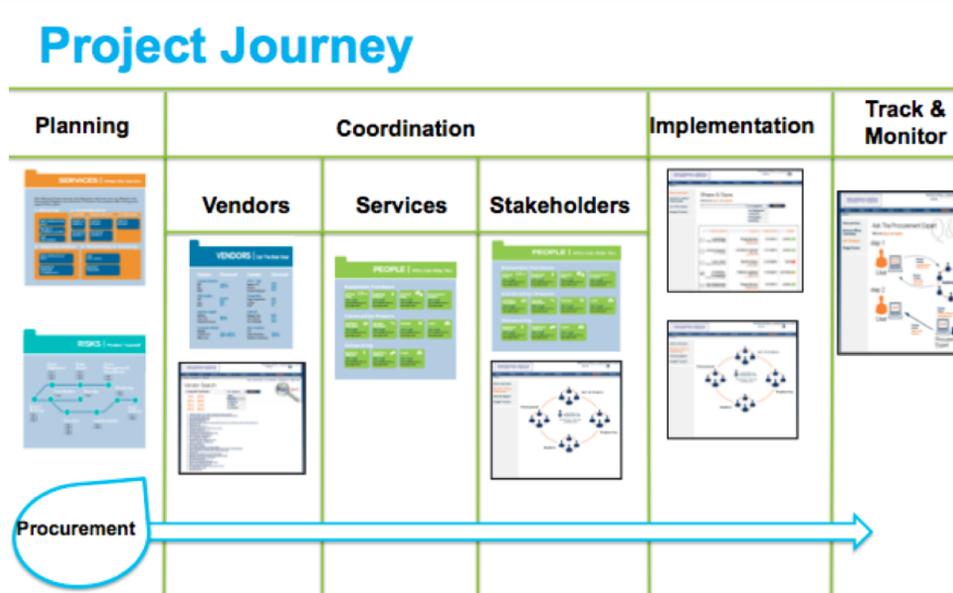


Figure 3. Procurement Journey Map



Figure 4. Prototypes of Procurement Fact Sheets

Testing the framework: Public procurement at the University of Toronto (Ryan & Leung, 2014)



- Stated objective
- *Tabula rasa*



- Team shadowing
- Listening
- Snowballing recruitment



- Synthesis into personas
- Reframed objective
- Co-creative journey mapping and prototyping



- Different stakeholders, different artifacts



- Planned transitions vs. when they were ready?



- 6 weeks of empathy
- 4 co-creative work
- 2 on strategy



- Not discussed



- Co-creative finding, framing, and solving



- Defer to the stakeholders

Testing the framework: Canadian National Youth Leadership & Innovation Strategy Summit (NYLIS)

EXECUTIVE SUMMARY



On April 29th and 30th, 2016, the inaugural National Youth Leadership and Innovation Strategy Summit (NYLIS) took place at the MaRS Discovery District in downtown Toronto.

Testing the framework: Canadian National Youth Leadership & Innovation Strategy Summit (NYLIS)



- Prep documents



- Self-reports & dialogue



- Data team → report-backs → Analysis and writing team



- The team was resistant to critical analysis



- Groups did not mix
- Only one type of data was collected



- *Two* days



- 200+ people from across industries/demographics



- Critiques were *acknowledged*

Discussion

- **Contributions:**
 - A framework for assessing etic vs. emic perspectives in systemic design
 - Assessing “emic-ness” *is possible*

- Intensivists and Extensivists

Limitations

- **Constructive, third-party case study analysis**
 - Case-selection bias
 - Interpretation is potentially errored
 - Nonetheless, the goal is not to establish a verdict for these cases, but to demonstrate the utility of a framework
 - Real-world application would be a better test
- **Literature review to establish framework was limited**
 - A systematic literature review might turn up more features of an effective framework

Discussion

- **Next steps:**
 - Necessity and sufficiency? Refining the criteria
 - Field testing
 - An index of emic systemic design methods

Conclusion

- **Simple tweaks (such as switching from self-report to participant observation or engaging in participant checking) can be simple-but-powerful improvements**
- **Starting a conversation about emic and etic practices, and their implications**
 - The “intensivist” and “extensivist” metaphors represent interesting mental models of different approaches

References

(h/t to Noun Project artists)

- Choo, C. W. (1999). The Art of Scanning the Environment. *Bulletin of the American Society for Information Science*, 25(3), 13–19.
- Creswell, J. W., & Miller, D. L. (2000). Determining Validity in Qualitative Inquiry. *Theory Into Practice*, 39(3), 124–130. https://doi.org/10.1207/s15430421tip3903_2
- Denzin, N. (1978). *The Research Act: A Theoretical Introduction to Sociological Methods*. New York, NY: McGraw-Hill.
- Denzin, N. K., & Lincoln, Y. S. (Eds.). (2005). *The SAGE Handbook of Qualitative Research* (3rd edition). Thousand Oaks, Calif.: SAGE Publications.
- Eberle, T. S. (2014). Phenomenology as a Research Method. In U. Flick (Ed.), *The SAGE Handbook of Qualitative Data Analysis* (pp. 184–202). Los Angeles, Calif. [u.a.]: Sage. Retrieved from <https://www.alexandria.unisg.ch/228374/>
- Emerson, R. M., Fretz, R. I., & Shaw, L. L. (2011). *Writing Ethnographic Fieldnotes* (2nd Edition). Chicago, IL, USA: University of Chicago Press. Retrieved from <http://www.press.uchicago.edu/ucp/books/book/chicago/W/bo12182616.html>
- Fetterman, D. M. (2005a). Emic Perspective. In *Encyclopedia of Evaluation* (pp. 124–124). Thousand Oaks: SAGE Publications, Inc. <https://doi.org/10.4135/9781412950558>
- Fetterman, D. M. (2005b). Etic Perspective. In *Encyclopedia of Evaluation* (pp. 136–136). Thousand Oaks: SAGE Publications, Inc. <https://doi.org/10.4135/9781412950558>
- Flick, U. (2014). *The SAGE Handbook of Qualitative Data Analysis*. 1 Oliver's Yard, 55 City Road London EC1Y 1SP: SAGE Publications, Inc. <https://doi.org/10.4135/9781446282243>
- Flyvbjerg, B. (2006). Five Misunderstandings About Case-Study Research. *Qualitative Inquiry*, 12(2), 219–245. <https://doi.org/10.1177/1077800405284363>
- Harris, M. (1976). History and Significance of the Emic/Etic Distinction. *Annual Review of Anthropology*, 5(1), 329–350. <https://doi.org/10.1146/annurev.an.05.100176.001553>
- Jones, P. (2015). Design Research Methods for Systemic Design: Perspectives from Design Education and Practice. *Proceedings of the 58th Annual Meeting of the ISSS - 2014 United States*, 1(1). Retrieved from <http://journals.issis.org/index.php/proceedings58th/article/view/2353>
- Kimbell, L. (2011). Rethinking Design Thinking: Part I. *Design and Culture*, 3(3), 285–306. <https://doi.org/10.2752/175470811X13071166525216>
- Kolko, J. (2010). Abductive thinking and sensemaking: The drivers of design synthesis. *Design Issues*, 26(1), 15–28. Retrieved from <http://www.mitpressjournals.org/doi/abs/10.1162/desi.2010.26.1.15>
- Kozinets, R. (2015). *Netnography* (2 edition). Los Angeles: Sage Publications.
- Lukyanenko, R., & Parsons, J. (2012). Conceptual modeling principles for crowdsourcing (pp. 3–6). ACM. <https://doi.org/10.1145/2390034.2390038>
- MaRS Studio Y. (2017a). *A strategic framework for youth leadership & innovation in Canada: Insights from the 2016 National Youth Leadership and Innovation Strategy Summit*. Toronto, ON. Retrieved from http://www.studioy.marsdd.com/wp-content/uploads/2016/12/MaRS_NYLIS-strategic_framework_Final.pdf
- MaRS Studio Y. (2017b). *Next Step Forward: A Strategic Framework from the 2016 National Youth Leadership and Innovation Strategy Summit (NYLIS)*. Toronto, ON. Retrieved from https://studioy.marsdd.com/wp-content/uploads/2017/07/NYLIS_Next_Step_Forward_updated.pdf
- Newman, M. (2010). *Networks: An Introduction*. Oxford, New York: Oxford University Press.
- Norman, D. A., & Stappers, P. J. (2015). DesignX: Complex Sociotechnical Systems. *She Ji: The Journal of Design, Economics, and Innovation*, 1(2), 83–106. <https://doi.org/10.1016/j.sheji.2016.01.002>
- Osterwalder, A., Pigneur, Y., & Clark, T. (2010). *Business model generation: a handbook for visionaries, game changers, and challengers*. Hoboken, NJ: Wiley.
- Rapley, T. (2014). Sampling Strategies in Qualitative Research. In *The SAGE Handbook of Qualitative Data Analysis* (pp. 49–63). 1 Oliver's Yard, 55 City Road London EC1Y 1SP: SAGE Publications, Inc.
- Rittel, H. W., & Webber, M. M. (1973). Dilemmas in a general theory of planning. *Policy Sciences*, 4(2), 155–169. Retrieved from <http://link.springer.com/article/10.1007/BF01405730>
- Ryan, A. (2014). A Framework for Systemic Design. *FORMakademisk—research Journal for Design and Design Education*, 7(4). Retrieved from <https://journals.hioa.no/index.php/formakademisk/article/view/787>
- Ryan, A. (2016, February 3). What is Systemic Design? Retrieved April 9, 2018, from <https://medium.com/the-overlap/what-is-systemic-design-flcb07d3d837>
- Ryan, A., & Leung, M. (2014). Systemic Design: Two Canadian Case Studies. *FormAkademisk - Research Journal of Design and Design Education*, 7(3). Retrieved from <https://journals.hioa.no/index.php/formakademisk/article/view/794>
- Šćepanović, S. (2018). *Data science for sociotechnical systems - from computational sociolinguistics to the smart grid*. Aalto University. Retrieved from <https://aaltodoc.aalto.fi/443/handle/123456789/30187>
- Second Muse, Intel, & Vibrant Data. (2016, May 11). What Your Data Says: Post-Secondary Education Mapping Survey Highlights. RECODE. Retrieved from http://re-code.ca/whats_happening/watch-recode-webinar-what-your-data-says/
- Simon, H. A. (1995). Problem forming, problem finding and problem solving in design. *Design & Systems*, 245–257. Retrieved from <http://digitalcollections.library.cmu.edu/awweb/awarchive?type=file&item=34208>
- Stake, R. (2005). Qualitative Case Studies. In *The SAGE Handbook of Qualitative Research* (3rd edition, pp. 443–466). Thousand Oaks, Calif.: SAGE Publications.
- Stauch, J., & Cornelisse, L. (2016). *Canada Next: Learning for Youth Leadership and Innovation*. Calgary, AB: Institute for Community Prosperity, Mount Royal University, and MaRS.
- Wernet, A. (2014). Hermeneutics and Objective Hermeneutics. In U. Flick, *The SAGE Handbook of Qualitative Data Analysis* (pp. 234–246). 1 Oliver's Yard, 55 City Road London EC1Y 1SP: SAGE Publications, Inc. <https://doi.org/10.4135/9781446282243.n16>