

The Alignment Problem: The Case of Civic Tech - Academic Collaborations in the U.S. Safety Nets

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Plan

- 1 Motivation
- 2 Scoping
- 3 Implementation
- 4 Measurement
- 5 Communication
- 6 Conclusions and Discussion
- 7 References




Applied and Basic research			
		Considerations of use?	
		No	Yes
Quest for fundamental understanding?	Yes	 Pure basic research	 Use-inspired basic research
	No	—	 Pure applied research

Figure 1: Pasteur's Quadrant - Basic Science and Technological Innovation by Stokes (1997). Source: https://en.wikipedia.org/wiki/Pasteur's_quadrant

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WHY?
 - ▶ I'm currently an academic but also used to be a data scientist at Code for America, where I collaborated with academic partners on applied problems.
- ▶ **The alignment problem:** balancing the rigor of research and the cost of implementation.

- ▶ Academics want sound research design (e.g., randomized controlled trials), high-quality data (e.g., large-scale administrative data), and hence aspire to publish in top journals (research is the primary objective). *Less sensitive* to the cost of implementation.

	High rigor	Low rigor
High cost	Researcher = Happy, Implementer = Hesitant	Researcher = Frustrated, Implementer = Hesitant
Low cost	Researcher = Happy, Implementer = Happy	Researcher = Frustrated, Implementer = Happy

Table 1: Types of researcher and implementer relationships

- ▶ Academics want sound research design (e.g., randomized controlled trials), high-quality data (e.g., large-scale administrative data), and hence aspire to publish in top journals (research is the primary objective). *Less sensitive* to the cost of implementation.
- ▶ Practitioners want to find an easy and fast way to solve their problems (research is the secondary objective). *Highly sensitive* to the cost of implementation.

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Four Alignments: SIMC

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2. **Implementation**

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- ▶ The following slides are based on my experience collaborating with academic partners (e.g., Georgetown's Better Government Lab) for applied research at Code for America.

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- ▶ Scoping: turning applied problems into well-defined research questions (=hypotheses)

- ▶ Safety net programs (social insurance + anti-poverty programs): social security, SNAP¹, Medicare/Medicaid, WIC², etc.³

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²Women, Infant, Children

³My wife and I received support from WIC and Medicaid (Medical) when we had our daughter as both graduate students. So, I had personal experience with these programs.

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 - ▶ FLOW (you need to follow instructions)

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 - ▶ Learning cost (e.g., navigating online forms)
 - ▶ Compliance cost (e.g., interview requirements for SNAP)
 - ▶ Psychological cost (e.g., waiting anxiously for a case decision)

- ▶ Code for America and Georgetown's Better Government Lab have collaborated to reduce burdens in the U.S. safety net systems and deliver benefits to eligible clients in multiple states and programs (my case: CA, NY, CO, NM).

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 3. Option C: Automating back-end workflows
- ▶ The key in scoping is balancing between implement costs and potential impacts

- ▶ Don't just talk about ideas; write them down and share them with your partners.⁴

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- ▶ Why? Your counterpart researchers/practitioners need to share these ideas with other stakeholders and decision-makers within their organizations.
- ▶ Write a short document (one- or two-pager) to articulate the potential benefits (learning, decision, and impacts) and implementation costs (which teams and staff need to be involved, how much, and how long).

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- ▶ Implementation: turning research objectives into research outcomes
- ▶ We make plans, but some plans are bound to fail.
- ▶ When best options are not available, improvise.
Perfect is the enemy of good (your applied partner is far from Reviewer 2).

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 - ▶ Write a user story (step-by-step hypotheses of user behaviors) and check whether users follow the scenario that you intended with engineers, designers, and user experience researchers (or caseworkers and users, depending on project scopes)

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 - ▶ Do internal testing and demo(s) (=prototyping). If you redesign a form, do people navigate the form as you intended (i.e., user testing)?

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 - ▶ Do internal testing and demo(s) (=prototyping). If you redesign a form, do people navigate the form as you intended (i.e., user testing)?
 - ▶ Expect failures and make the implementation plan robust. e.g., were these messages delivered successfully if you message people? Are there any security issues?

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Measurement

- ▶ Measure what matters (Doerr, 2018)
 - ▶ In safety net contexts: people, burden, and benefits
- ▶ Set primary (e.g., direct impacts) and secondary learning objectives (e.g., indirect impacts)
- ▶ Easier metrics do not imply better (or more important) metrics (Muller, 2018).
- ▶ Some impacts have direct monetary values (e.g., dollar amounts), others not (e.g., time saved).

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- ▶ Everyone knows pieces but not the whole picture. You need to put the puzzles together.
- ▶ Check data quality by consulting with technical and domain experts.

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- ▶ Basic structure: stories (qual) + evidence (quant)
- ▶ There are different types of deliverables (code/slide deck/working paper, blog posts, etc.) suitable for different audiences (technical, academic, practitioner, policy-maker, etc.).

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- ▶ Pay attention to details and ensure that (almost) every stakeholder is aligned at every step.

Takeaways

- ▶ Applied fundamental research is promising and fun.
- ▶ Administrative burden theory is useful to scope applied problems theoretically in policy implementation (safety net is one domain).
- ▶ Pay attention to details and ensure that (almost) every stakeholder is aligned at every step.
- ▶ Relational is strategic. Transactional relationships don't go a long way.

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