

Re-centering the social through open participation processes. The case of Chilean National AI Policy

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The emergence of artificial intelligence (AI) as new general-purpose technology is influencing how societies shape their development models for the next decade (Bresnahan & Trajtenberg, 1995; Klinger et al., 2018; Trajtenberg, 2018). However, since the emergence of AI in 1956, it has not been until the last decade that the scale and speed of AI adoption and the risks it poses have become a central policy challenge for governments (Taeihagh, 2021). The latter is evident in the explosive increase of policy instruments since the publication of the first AI strategy in Canada in 2017 to over 700 policy initiatives in more than 60 countries listed by the OECD AI observatory (OECD, 2021).

Members of the society have different opportunities to influence technology policies (Sand, 2019). The discussion about incorporating multiple visions in policymaking is becoming ubiquitous amid crises of trust and social unrest that have proliferated during the last few years. However, most AI policies have been developed by “domain experts,” leaving “lay people” in the margin, de-centering the social from AI policies. How societies are re-centering the social in building AI policy is a relevant question to explore because socio-technical futures are political (Aykut, 2015; Granjou et al., 2017), and groups with different imaginaries and expectations will compete to frame what is relevant, urgent, possible, or inevitable (Konrad & Böhle, 2019). Furthermore, recent studies and international discussions have emphasized the need to build broad societal consensus around ethical principles and institutions (e.g., Calo, 2017; Gasser & Almeida, 2017). However, there is a relevant gap in how to implement AI governance in practice (Taeihagh, 2021).

I draw upon an in-depth analysis of the Chilean AI National AI policy, which incorporated around 10,000 people during its development. I was part of the development process of the AI policy, leading it from the diagnosis to the public consultation and becoming a ministerial counterpart from the consultation to its implementation. I examined my experience and knowledge of the process, official documents, and transcripts of public discussions to reverse-engineer the process model for developing the AI policy. Reverse engineering was necessary because the methodology changed multiple times, so there is no record of how the whole process ended up looking. I then analyzed how the method iterated when facing two external crises (i.e., social riots in 2019 and the COVID-19 pandemic) to re-center the social in the process.

Analyzing the process (see annex 1), I generated a general framework on how different process stages interacted with the environment. Figure 1 summarizes the framework inspired by Crawley’s (2001) Conceive, Design, Implement and Operate framework, initially developed for curricular planning in engineering. I propose that AI governance initiatives are built in four stages: (1) Conceive, (2) Design, (3) Implement, and (4) Operate, which can be overlapped to different levels and might be iterative. In the Conceive stage, stakeholders address the challenges and opportunities of AI systems and think of possible solutions to them (e.g., regulations and strategies). In the Design stage, stakeholders design a roadmap and build the solution chosen during the Conceive stage. In the Implement stage, stakeholders start executing the actions developed in the Design stage. Finally, in the Operate stage, the owner of the solution monitors results, identifies future opportunities and challenges, and can decide to initiate a new policy process. I acknowledge that this can simplify the

uncertain and messy real world. However, it serves as a simplified framework that can be easily used as a base by practitioners to think and implement AI governance solutions.

The process is influenced by crises and bottom-up pressure demanding different outputs from the four stages. The government responds by adapting the process and its governance to address the bottom-up pressure. This constant relation between demands and responses shapes the process and defines the level of overlap between the stages.

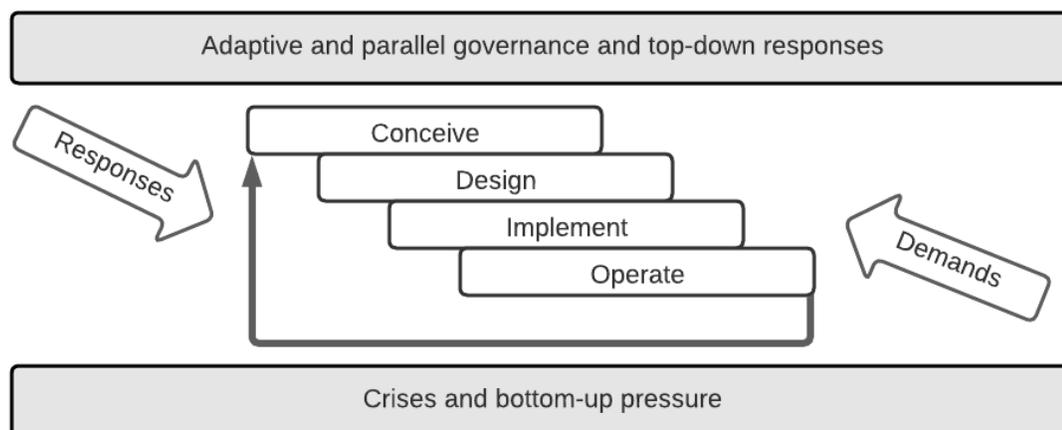


Figure 1. Framework for developing AI governance processes.

Crises played a leading role in re-centering the social in the Chilean AI Policy. Social Riots in 2019 lowered barriers for authorities to adopt a bottom-up approach. For example, the president of Chile rejected the first proposed methodology, which included roundtables with the public, and mandated an expert committee to draft the policy for consultation. After social riots, authorities agreed to foster self-convocated roundtables and organize regional discussions to gather information for the draft, leaving the expert's committee only as a consultive group. Furthermore, COVID-19 enabled new participation mechanisms and forced the government to develop tools to support multiple publics (e.g., manuals for participation and government sponsorship of discussions).

The government actively generated responses to the bottom-up pressure and channeled it through participatory approaches. For example, policymakers actively seek to build trust in multiple publics through mechanisms such as a two-staged process to increase accountability, convincing groups closer to the opposing coalition to generate transversal agreements, promoting international visibility, and participating in international discussions to show the importance of the process. Furthermore, the government actively argued against the expert/non-expert dichotomy, responding to domain expert groups complaining because of the involvement of "lay people" in the process.

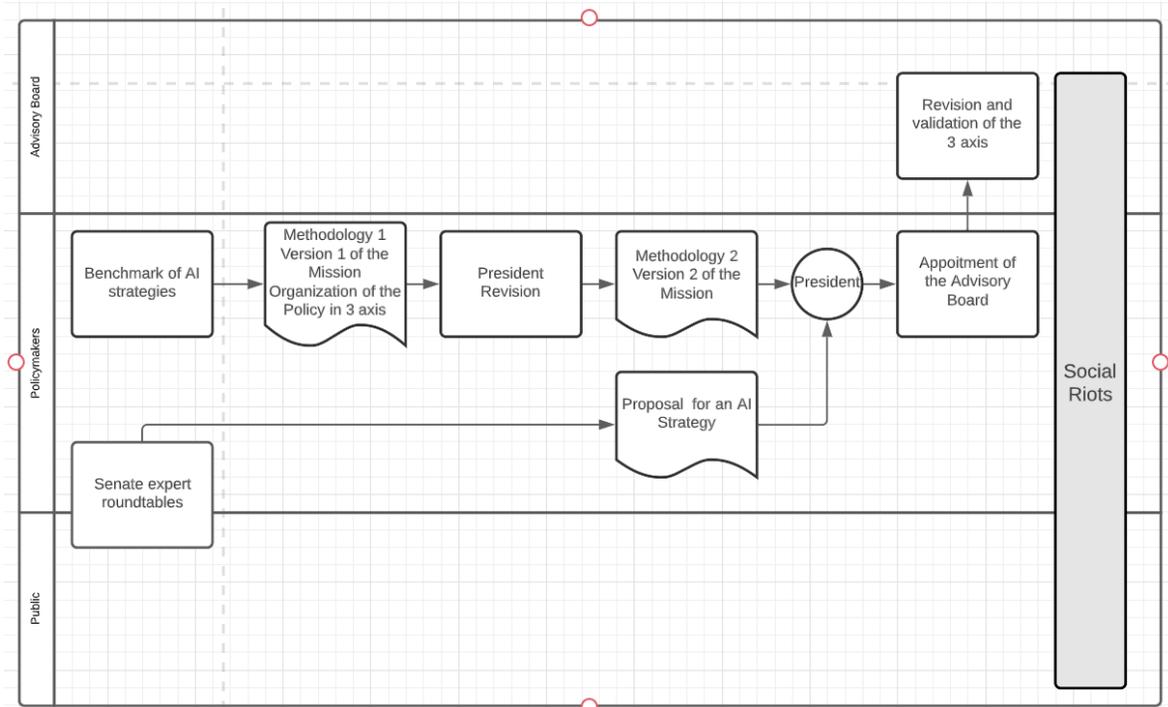
A peculiarity of this case is how science and technology (S&T) discussions are intertwined with development discussions. Deliberation during the process was framed from Chile's singularities, such as its Natural Laboratories like the Atacama Desert (Guridi, Pertuze, Pfothenauer, 2021) and deficits (Pfothenauer, Juhl & Aarden, 2019) such as the lack of capabilities to adopt some

international standards. Furthermore, several roundtables were focused on how AI contributed to the overall development of the country, not its research and development, for the sake of S&T alone.

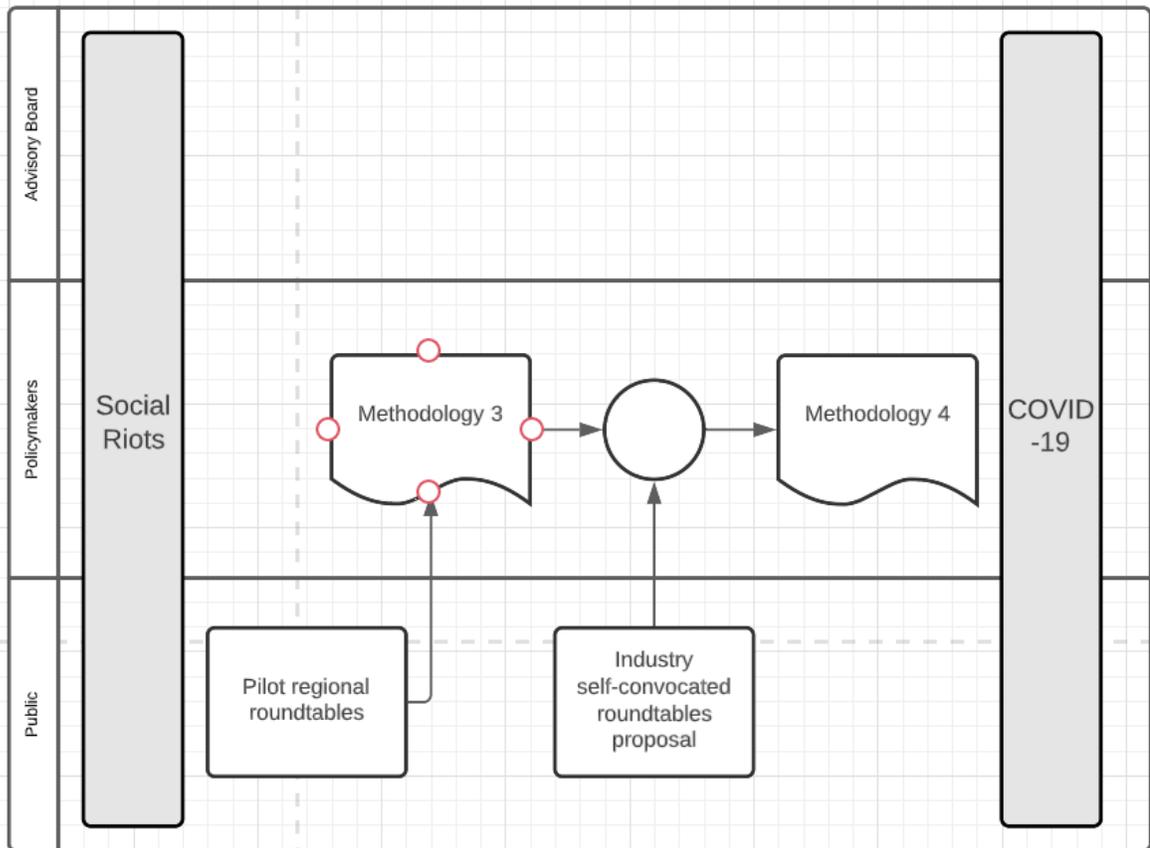
I contribute to AI governance literature by providing insights on incorporating multiple publics in AI discussions acknowledging citizens' reflexive agency to build democratic legitimacy (Biale & Liveriero, 2017), and the role crises can play in these processes to re-center the public. In a broader venue, I discuss the intertwined nature of technology and development and how this intertwinement shapes public deliberation and moves processes beyond the expert/non-expert dichotomy.

Annex 1: Diagram processes from the Chilean AI Policy

First Stage: Unstructured top-down methodologies [Jan 2019 – Oct 2019]



Second Stage: Unstructured bottom-up methodologies [Nov 2019 – Mar 2020]



Third Stage: Structured collaboration [Apr 2020 – Oct 2021]

