Improving Stakeholder Input on Upstream Risks
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Stakeholder engagement processes establish a contract, either formally or informally: you talk and we listen. Much of the time, however, this contract is not honored -- what’s said is in the wrong language or considered irrelevant, so nothing is understood or remembered. The result is frustration and cynicism for citizens, lengthy delays and uncertainty for businesses, higher costs and a loss of trust for governments.

Much of my recent work has focused on one of the more challenging areas for engaging stakeholders: encouraging informed stakeholder participation in decisions about the management of risks associated with novel “upstream” technologies that remain in the design or experimentation (rather than large-scale implementation) phase. Examples include geo-engineering for climate change, nanotechnologies for monitoring human health, and assisted species migrations to avoid extinction. Participants range from technical experts, working in government or industry or academia, to members of the lay public; not surprisingly, a wide range of values, beliefs, training, and levels of interest are displayed. The goal is to help individuals become better informed while listening to others’ concerns and remaining open to new learning, about both values and facts. These two sides of risk communication inter-relate: as people learn more about the nature of the upstream risks, and learn more about what is and what is not within their own control (e.g., through lifestyle choices) or the control of risk managers (e.g. through new regulations), their perspective on the nature and implications of the risk is likely to change.

This shifting nature of risk perceptions is particularly true of upstream initiatives such as nanotechnologies or potential geo-engineering responses to climate change: peoples’ knowledge is limited so, as they learn, they are especially susceptible to the cues contained in new information. As a result, decision heuristics such as availability can play an important role. In other ways, however, people’s lack of knowledge often serves to cement their views on upstream technologies. Empirical results show that those with strong ethical or political views (conservative/republican more so than liberal/democratic) typically are less, rather than more,
willing to take in new information and also tend to rate their own knowledge levels as higher than the average persons’.

This raises challenges for the design of an effective engagement process, because people may be unwilling to allow risk managers or facilitators to assist them in either (a) learning more about what experts say regarding the facts behind the technology or (b) learning more about their own views, in the specific context of the technology choices under consideration. In an earlier paper, written with Sarah Lichtenstein and Julie Irwin (Lichtenstein, Gregory & Irwin, 2007) we examined how people make trade-offs when confronted with morally or ethically difficult issues and concluded that “What’s Bad is Easy” – many of what might seem to be the toughest policy choices (terrorism, gun control, abortion, climate change) are in fact not tough at all because (despite being largely uninformed) people know what they think should be done.

In the context of large-scale climate mitigation and adaptation actions, for example, all leading policy alternatives pose value and ethical tradeoffs across different geographic and temporal scales. Climate mitigation options that include global-scale geo-engineering technologies – currently much discussed in light of recent IPCC findings regarding the surprisingly swift rate of climate change – have been said to represent an “unprecedented human intervention into nature” (Corner et al., 2013). In such situations, informed choices call for a careful weighing of information and a profound degree of soul-searching. However, our worry is that many stakeholder participation approaches – including conventional surveys, benefit-cost ranking exercises, and most large-scale public engagement processes – encourage quick responses that ignore key factual information and overly reflect the automatic choices and political ideologies characteristic of fast thinking, in contrast to the slower and more deliberative thinking that is needed to address such unfamiliar, multi-dimensional tradeoffs (Kahneman, 2011).

In this sense, many upstream conditions contravene the usual assumptions for public participation – that people understand the questions asked of them and have thought sufficiently about the topic to express clear, considered, and relatively stable responses (Fischhoff, 2005). Instead, it is likely that responses to novel technologies will reflect psychological biases such as the prominence effect (Tversky, Sattath & Slovic, 1988), by which people deal with unfamiliar choices by giving undue weight to one dimension of a choice and largely ignoring other concerns. The University of Pennsylvania psychologist Jon Baron has emphasized that, in such contexts, people actively seek to avoid these choices (Baron & Spranca, 1997), characterizing them as
involving protected values and thus “taboo” to the degree that they are not in a class of decisions that follow normal rules (e.g., less of a bad thing is better than more) and, in fact, don’t merit careful attention because there is nothing difficult about them – think of Nancy Reagan and her “Just say no” approach to drugs.

The challenge is how to (respectfully) open up these closed doors and encourage people to inhabit areas of their thinking and feeling where they are distinctly uncomfortable. Otherwise, many of the most important public policy issues of our day will continue to go forward without formal input from citizens. Why does this matter -- why not simply leave the tough technical questions to experts? One set of reasons is philosophical: a democracy requires that its citizens are informed and have meaningful input to consequential public policy choices. A second set of reasons is practical: without meaningful stakeholder input, decisions are less likely to include key components of the benefits, costs, and risks that matter most to citizens. Preferred alternatives will be ignored and other mechanisms, including litigation in the courts or protests in the streets, are more likely to be employed. In her recent book on climate change, Naomi Klein (2014) documents this rise of veto powers among communities and groups who feel excluded from relevant policy discussions; individual initiatives are effectively blocked by stakeholder protests, thereby challenging the testing or refinement of new ideas and encouraging retention of an unsatisfactory status quo.

Looking back on the past decade of research and practice, how well is the deliberative challenge raised by upstream technologies being met? For many important public policy issues the unfortunate answer is: very poorly. Decision makers continue to favor large-scale public participation efforts that place quantity over quality and fail to provide either the time or the cognitive support required to help people construct and express informed opinions. I share with many others the perspective that this dumbing-down of the public dialogue is not benign: by setting the bar very low in terms of its quality or relevance, it simultaneously becomes less attractive for stakeholders to participate in public debates and easier for politicians to ignore what they hear.

This is not to say that important advances in deliberative theory and practice have not occurred. Research in North America has focused on more comprehensive methods for eliciting stakeholder opinions, including both deliberative polling approaches, which combine conventional polling with small group or online and social media participation (Fishkin & Luskin, 2005), and decision-
pathway surveys, which mimic the conversational style and depth of small-group deliberations by including competing civic priorities, factual tutorials, and the reasoning underlying policy tradeoffs (Gregory et al, 1.997). Research in the UK has focused on upstream engagement strategies that combine interview and small-group results with telephone or web-based surveys, thus permitting researchers to calibrate results from multiple elicitation techniques (Rogers-Hayden & Pidgeon, 2007). There also has been a move toward more closely linking the insights from technical and public stakeholders (Satterfield et al., 2012), increasing the likelihood that one, shared set of recommendations could then go on to elected officials.

Several of these newer deliberative approaches seek to shift the normal rules of the game so that participants can move out of their normal comfort zone to consider new views. One example is to ask people to justify their choice: to express a set of reasons and a rationale that would prove convincing to others. Justification immediately places the individual in relation to others and, as such, has the potential to bring in a new set of considerations (anecdotally, President Obama often asks his top advisors to articulate how they would justify a strategy choice, presumably as a way to help him later do the same). Another example – a variant on the more familiar notion of a science court, whereby leading technical experts are asked to argue the merits of competing positions or hypotheses in front of their peers – is an ethics court, whereby participants are asked to articulate the principals or morals that underlie (or undermine) a selected action or strategy.

In a recent paper, Nick Pidgeon and his colleagues in the UK describe many of these recent advances and articulate four aspects of the engagement challenge: presenting well-articulated scenarios that anticipate questions of scale; communicating information and policy framings in a balanced manner; maintaining open deliberations that permit and encourage learning; and articulating the broader beliefs and worldviews logics within which such decisions are embedded (Pidgeon et al., 2014). Any approach that seeks to encourage an informed dialogue about upstream technologies also will need to effectively communicate uncertainty. Consider the widely discussed case of increased temperatures due to climate change: stakeholders may be asked to evaluate a range of different actions in light of information showing a likely temperature rise of at least 1 degree C and as much as 4 degrees, with a best estimate of 2 degrees C over the period under consideration. Studies show that some individuals – based on their worldviews and other beliefs – will view this range as a flat distribution, so that all temperatures in the range are equally likely. Others will focus on only one endpoint, typically whichever is motivated by their
immediate cognitive associations. Others will center on the best estimate, or believe that if this range is the best that scientists can do (e.g., a 90% confidence interval) then (correctly) temperatures outside the endpoints are also possible. Some variations among groups will be predictable, including some differences between experts and laypersons, but within each group typically there will be wide variations depending on the context and elicitation approach. And in the case of upstream technologies much of the uncertainty is irreducible in the short term -- not to be resolved through simple studies or well-targeted questions -- which often brings in issues relating to the competence of the scientists conducting the studies and the timeliness of the upstream public policy debate itself (as one participant asked: “why ask these questions now, before anyone knows what is really going on?”

At present there are several exciting new avenues for research on deliberative processes for upstream technologies but little consensus on the best way forward. If nothing else, the word is out that traditional survey and benefit-cost approaches are missing important parts of the picture and, as a result, new methods are urgently needed. The push to better engagement techniques is coming from decision makers as well as public stakeholders: for elected officials engaged in addressing the benefits and risks of upstream technologies, both the stakes and the scrutiny have never been higher.

References


Klein, N. 2014. This changes everything.


