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THE *PARTICIPEDIA* PROJECT: AN INTRODUCTION

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ABSTRACT: *Participedia is an open-source, participatory knowledge tool that responds to a new global phenomenon: the rapid development of experiments in new forms of participatory politics and governance around the world. The experiments are diverse and widespread, from the British Columbia Citizens' Assembly in Canada and the Oregon Citizens' Initiative in the United States to Participatory Budgeting in Brazil, deliberative forums in China, Panchayati Raj reforms in India, and citizen technology assessment in Denmark. Our knowledge of this rapidly expanding universe is shallow. The authors of this article, together with several others, have created the Participedia to respond to this deficit in knowledge. This article documents the development of the Participedia project to date. Participedia aims to be useful to scholars (and practitioners) as an open-source, real-time, cumulative qualitative and quantitative data repository about participatory and deliberative governance experiences. We believe that Participedia is the first effort in the social sciences to build a large data set through a method that is both crowd-sourced and structured to produce good quality, comparable information.*

[*Editor's Note:* The authors of this article are two of the co-founders of *Participedia*.]

INTRODUCTION

Participedia (www.participedia.net) is an open-source, participatory knowledge tool that responds to a new global phenomenon: the rapid development of experiments in new forms of participatory politics and governance around the world. The experiments are diverse and widespread, from the British Columbia Citizens' Assembly in Canada and the Oregon Citizens' Initiative in the United States to

Participatory Budgeting in Brazil, deliberative forums in China, Panchayati Raj reforms in India, and citizen technology assessment in Denmark. Many of these forms of participation are familiar and have a long history, such as public hearings and comment, citizen surveys, stakeholder meetings, and town hall meetings. Many more forms are new—most less than two decades old—including deliberative polling, town meetings, citizen juries, citizen assemblies, participatory budgeting, as well numerous techniques for devolving decisions, structuring deliberation, working across and beyond jurisdictions, and including those who have little voice within electoral politics. There may be as many as a hundred or more kinds of participatory institutions now practiced in every form of government from the relatively authoritarian regimes of China and Southeast Asia to the mature electoral democracies of the North Atlantic countries. There are now tens of thousands and perhaps hundreds of thousands of participatory events and processes occurring every year around the world.

As we should expect, each of these modes of participation have strengths and weaknesses: they are more or less inclusive, more or less deliberative, and more or less costly. They produce differing kinds of results, from co-opting opposition to bringing informed publics into existence for future issues. They may generate information; they may produce more just outcomes; they may produce legitimacy; they may institutionalize new forms of learning. On the other hand, these processes may be costly of time and money, generate alienation and frustration, provide venues for NIMBYism, and produce outcomes that are substantially more unjust than professional public servants would produce if sheltered from public pressure.

Our knowledge of this rapidly expanding universe is shallow, especially when we compare our knowledge of these emerging institutions to those we have been studying for many decades: representative legislatures, executive offices and bureaucracies, municipal councils, and various forms of authoritarianism. What kinds of processes are appropriate for what kinds of issues? What kinds of processes are likely to generate better rather than worse outcomes—more legitimacy, justice, or effectiveness, say—given the characteristics of the issues and the constraints of time and money?

The authors of this article, together with colleagues in a number of other universities and organizations such as the Deliberative Democracy Consortium, have created *Participedia* to respond to this deficit in knowledge. This article documents the development of the *Participedia* project to date. We do not evaluate the tool, which is very much in development. In the first instance, the goal of *Participedia* is to be useful to scholars (and practitioners) as an open-source, real-time, cumulative qualitative and quantitative data repository about participatory and deliberative governance experiences. More broadly, we believe that *Participedia* is the first effort in the social sciences to build a large data set through a method that is both crowd-sourced and structured to produce relatively high quality, comparative information. It is an early effort to import a method now common in other domains and disciplines into the social sciences.

Participedia is thus a methodological innovation in the social sciences that utilizes a structured participatory (crowd-sourced) strategy to gather data about a wide array of participatory governance innovations in the world. *Participedia* is, first and foremost, a knowledge tool, one designed to combine the knowledge, insight, and energy of the many people who know something about these new institutions—people who

organize these institutions, as well as academics and students who study them. Its goal is twofold. First, *Participedia* aims to provide an encyclopedia of participatory politics and governance. It is comprised of a large, user contributed, open-source collection of articles about cases of participatory politics and governance, methods for conducting participatory governance, and organizations working with participatory governance. Articles may be contributed (or edited) by students, scholars, practitioners, or anyone else who can offer knowledge about a case or a process.

Second, *Participedia* aims to develop and deepen useful knowledge about what kinds of processes work to achieve more democracy, to enhance responsiveness and efficiency from government, to deepen capacities of citizenship, or other worthy goals. To achieve this second goal, *Participedia* collects data about the cases and processes as it collects articles, so that specific features of processes, cases, and their contexts can be related to their successes and failures. *Participedia* will function as a new kind of research tool that will allow hundreds of researchers and practitioners both to catalogue and to compare the performance of participatory political processes.

In this article, we describe the *Participedia* project and its rationale, design, and uses. In the first section, we survey the political background: the rapid development of a diverse universe of participatory processes and practices. In the second, we point to the recent development of open-source, collaborative information technology of the kind that inspires the *Participedia* approach to knowledge. In the third section, we identify the problems and needs *Participedia* is designed to address. We explain how *Participedia* works in the fourth section. In the fifth, we lay out the theoretical rationale for *Participedia's* design, and in the sixth section we explain the data collection strategy. Section seven provides some data on *Participedia* users and contributors since the launch of a concept demonstration site in September 2009. In the final section we survey the developing *Participedia* community and its centrality to the success of the project.

THE POLITICAL BACKGROUND

Over the past several decades, many of our familiar political institutions—parties, legislatures, executive agencies, cabinets, and the like—have failed to evolve as rapidly as the societies in which they are embedded. Social peace and prosperity depend on well-functioning political institutions. Those institutions must register demands from society; they need to combine demands into workable public policies and programs; they need to manage conflicts and produce legitimate decisions even in the face of conflict. And they need to reproduce their own legitimacy.

But most contemporary societies are producing more social, political, economic and technical demand than received institutions can accommodate. There are many structural reasons for this mismatch between conditions and governance institutions: contemporary societies and economies are highly complex, so good decisions require a great deal of good information, as well as careful, coordinated responses to both problems and opportunities. At the same time, the powers and capacities to make decisions are increasingly dispersed among those with the knowledge and capacities to make things happen: among economic actors, research groups, and civil society

organizations. Even though states retain formal sovereignty over their territories, the actual capacities of governments to make and implement decisions are almost always dispersed among multiple levels, agencies, and branches of government. Moreover, formal sovereignties are increasingly mismatched to globalizing economies, labor markets, security, and environmental problems. Cultures are increasingly pluralized, and identity-based demands are increasingly widespread. Populations are increasingly diverse and so their needs.

Many of these pressures were anticipated in the 1970s by a report to the Trilateral Commission that predicted that unless ways could be found to suppress demand, democratic institutions would break under these kinds of stresses, and revert to various forms of authoritarianism (Crozier, Huntington, and Watanuki 1975). The report turned out to be prescient in its analysis that increased political demand would strain democratic institutions. It is certainly true that electoral legitimacy doesn't buy what it once did. The circuit from periodic voting to legislative representation, to legislation, and finally to administration is leaky—so full of broken principal-agent relationships that democratically elected governments often find they lack legitimacy to govern, even if they have won fair, competitive elections (Fung 2006a; Warren 2009).

And yet the report to the Trilateral Commission was utterly wrong in its prediction of electoral regime failure. While political institutions in many societies have lost trust and legitimacy with their populations, the standard institutions of elections have not been replaced. To the contrary, they have spread to more nations than ever before in history. And these systems tend to be adaptable and resilient: rather than breaking before the new waves of political demand, electoral systems have entered a new era of experimentalism with institutions that are not replacing the standard institutions of representative government, but rather supplementing, complementing, and deepening them.

While there are many new kinds of processes, they tend to have several characteristics in common (Warren 2009). They tend to evoke the language of participation and citizen engagement, often in response to specific kinds of resistance or veto. They tend to be single-issue focused or single-problem focused rather than broadly programmatic or general-purpose. They are often innovative in design and utilize a variety of techniques such as random selection of participants, facilitation, deliberation, and new communication technologies. They tend to be respectful of the everyday knowledge of interested people. They sometimes provide venues for inclusion of people who have little if any voice in standard political processes. Finally, they are often highly pragmatic, focused on results.

These new processes are common in the mature, wealthy democracies of North America and Western Europe, Japan, Australia, and New Zealand. But they are certainly not limited to those places. We also see a range of novel participatory developments in Brazil, India, Eastern Europe, some African countries, and the Asian democracies. There are also participatory innovations in authoritarian and semi-authoritarian countries such as China, Singapore, Vietnam, and Malaysia. From a structural perspective, the development of participatory institutions in these countries is not at all surprising, given that these regimes must manage rapid development, but

without the legitimacy earned through elections. The aim of *Participedia* is to document, research, and assess these developments.

THE TECHNOLOGICAL BACKGROUND

Because of their sheer variety, number, and scale, documenting and researching these developments is beyond the reach of even a large, well-funded, multinational research team. This is why *Participedia* builds on a second development: decentralized collaboration enabled by the new information and communications technologies. Over the past two decades, these technologies have enabled dramatically decentralized forms of collaboration to produce products, services, and knowledge itself (Benkler 2006). In the realm of ideas, this decentralized mode of collaborative production was crystallized 15 years ago by observers of the LINUX project, an Open Source personal computer operating system headed by Finnish software engineer Linus Torvalds.

The LINUX project differed from traditional software development in at least three respects. First, the labor of writing LINUX's code is supplied almost entirely by volunteer programmers rather than by professional software engineers who are employed or contracted by a firm. Second, instead of seeking efficiencies by reducing redundancies, several programmers in LINUX frequently take on the same tasks in parallel to see who can, via experiment, produce the best (most efficient, least buggy) code. Third, rather than waiting until internal quality assurance testers confirm that a product is complete and nearly bug-free, the Open Source method is to "release early, release often" so that software can benefit from legions of volunteer external testers.

In a seminal essay comparing Open Source to conventional software development, Eric Raymond (2000) pointed out these differences and argued that there is a class of products for which Open Source methods are more effective than conventional hierarchical development. The central logic is that with highly complex software projects the logic of parallel production and frequent revision is more likely to reveal programming errors and enable developers to fix them.

LINUX is now but one of a very large number of Open Source software projects. Open Source itself is just one kind of collaborative production. This broad approach of enabling volunteers to contribute their labor and knowledge for some collective project has flowered in many arenas beyond software production. Wikipedia is the largest of these projects. This online, collaboratively produced encyclopedia received 380 million unique visitors in June 2010 and 14 billion page requests (Wikimedia 2010b). The English language version of Wikipedia contains more than 3.3 million articles (Wikimedia 2010a). Similarly, a large number of for-profit and nonprofit efforts aggregate "crowd-sourced" and "collaboratively filtered" reports from many thousands of individuals to pool information and generate judgments on topics as diverse as the quality of films, books and consumer products, hotels, hospitals and health care providers, neighborhood infrastructure, and even election violence and compliance.

Social and crowd-sourced monitoring tools have also been used to address a variety of public governance challenges. Ushahidi is perhaps the most prominent of these. Ushahidi (meaning "testimony" in Swahili) was initially launched by

political bloggers to map incidents of post-election violence in Kenya in the beginning of 2008 (see Fung, Russon Gilman, and Shkabatur 2010). It aggregated reports that citizens submitted via the Web or mobile phones regarding violations of human rights, and tagged them on a publicly available Google map, according to predefined categories. The success of the original Ushahidi platform was unprecedented compared to other accountability ICT platforms. It attracted more than 45,000 users in Kenya alone and exposed events that Kenyan mainstream media was reluctant to report and of which international media was not fully aware. Further, the Kenyan Ushahidi served as a catalyst for dozens of similar experiments around the world, in particular in the field of election monitoring, e.g., Liberia (2011), Brazil (2010), India (2010), Mexico (2009), Philippines (2009), and other countries. Building on the Ushahidi experience, learning from its mistakes, and engaging its core team members, Uchaguzi (which means “elections” in Swahili) is this movement’s subsequent iteration, and was deployed to monitor the Kenyan constitutional referendum on August 4, 2010. Uchaguzi’s main innovation is to develop deep connections with election authorities and civil society organizations. These partnerships improve the accuracy of the information and channel it to organizations that can act upon it.

Projects that harness these dynamics of open and decentralized collaborative production are less common in the scientific arena. Google Flu Trends is a clever project that begins by noticing that individuals’ online search behavior is sometimes related to their physical condition. For example, someone who thinks they might be suffering from influenza might search for “fever” or “body aches” in an Internet search engine (Google 2010). Google has developed a proprietary algorithm that predicts influenza infection rates based upon search requests they receive. For the United States, their predictions track the results of public health surveillance data from the Centers for Disease Control (CDC). The advantage is that Google Flu Trends predictions are available two weeks before CDC data (Google 2010).

Several “citizen science” projects enlist non-professional enthusiasts in professional scientific endeavors. “Galaxy Zoo” is an online astronomy project that aims to classify images of galaxies. In its first year of operation, 150,000 participants generated 50 million classifications (Galaxy Zoo 2010). Ornithology benefits from several citizen science projects: the State of the Birds and the Audubon Society’s Christmas Bird Count enlist amateur bird watchers to file sightings and bird descriptions, which are then aggregated to produce a more complete and accurate account of bird populations and migrations.

These examples suggest that new information technologies can enable collaborative research on a large scale in areas in which the variety of phenomena is high, knowledge of the phenomena is widely held, and the technical and educational barriers for knowledge contribution are relatively low. Many social and political phenomena fit this description. Social scientists have begun to use wiki-like methods to facilitate and collaborate research. In addition to a similar article-based approach, *Participedia* is taking one more important step by collaboratively producing a multi-parameter data set on participatory processes. As far as we know, *Participedia* is the first such project to do so.

WHAT NEEDS AND PROBLEMS DOES *PARTICIPEDIA* ADDRESS?

By taking advantage of new models of technologically facilitated decentralized knowledge production, *Participedia* aims to address a glaring gap in our knowledge of participatory politics and processes. To appreciate this gap, compare our excellent research and working knowledge of presidential and parliamentary systems. We know what kinds of electoral systems there are to choose from, and we know something about how different systems behave. But we don't have anything like this kind of grasp of what the landscape of new participatory institutions looks like. This new landscape began to emerge in the post-WWII period in the form of public hearings and mandatory public comment periods. In the United States and elsewhere, the 1960s saw new forms of participation in neighborhood, urban, and workplace governance. In the 1970s, urban planners began to involve communities in planning processes. The early 1980s saw the emergence of stakeholder meetings to address seemingly intractable conflicts over environmental and land use issues. But new forms of citizen participation really began to blossom in the 1990s, with consensus conferences, facilitated town hall meetings, citizen juries, citizen assemblies, deliberative polling, online dialogues, deliberative planning, participatory budgeting, study circles, planning cells, collaborative learning, and even participatory theater. There are now at least 100 and perhaps as many as 150 or more named and branded processes, and there are probably tens and perhaps hundreds of thousands participatory processes now going on around the globe in any given year (Involve 2010; Civicus 2010; Frewer and Rowe 2005).

There are several dozen in-depth case studies that reveal in great detail the design, dynamics, and effects of many of these democratic innovations (e.g., Fung and Wright 2003; Gastil and Levine 2005; Warren and Pearse 2008). Taken together, however, these case studies show that these democratic innovations are very different from one another and elude general characterization. As we suggested above, a difficulty researchers face is the sheer number and variety of these innovations. The pace of democratic invention has reached a level at which it is beyond the capacity of any single research team to track them all.

Participedia embraces this quantity and variety by seeking to pool all available information about the innovations in a structured way. The aim is to create a very rich and encompassing data set of democratic innovations all over the world, in this way addressing the need for knowledge about the many innovative ways in which we now govern ourselves and take public action. Meeting this need for political and institutional knowledge will enable scholars to answer many more specific empirical, normative, and policy-oriented questions about the causes and consequences of these institutions. This research, we hope, will form the basis for addressing more concrete needs in the areas of improving democratic inclusion, effective public problem solving, and civic engagement.

One of the key elements of *Participedia* is its global reach. Each *Participedia* case is geo-coded, which enables the Web site to generate visual maps indicating the global scope of democratic innovation. There have been and will continue to be geographical selection biases: content is more likely to come from areas where academic networks

are interconnected with our own and where Internet access is high. Nevertheless, we hope the geographic distribution of entries in *Participedia* will reveal interesting patterns with regard to the distribution of democratic innovations. We already see innovations in places like China and Latin America that are surprisingly common and robust. It is less surprising that fewer innovations have been reported in Africa.

In addition to global reach, we hope that the distribution of articles in *Participedia* will illuminate several other aspects of the scope of democratic innovation. It may be that democratic innovations are more prevalent in some issue areas—such as health and education—than others, such as foreign policy. In some places, such as the United States, civil society organizations may take the lead in creating and sustaining democratic innovations while in other places governments or political parties provide this leadership—for example, in India and Brazil.

Participedia also aims to document the wide variety of designs that have emerged for different democratic innovations. One important element of design, for example, is the purpose of an innovation. Some democratic innovations aim simply to engage individuals in civic and political life. Others are more ambitious; they aim to enhance equality or inclusion in political processes. Many aim principally to solve some public problem—education, safety, environmental protection, the quality of local amenities, and other public services—where conventional alternatives fail. Another important aspect of design concerns the character of participants and how they interact with one another. Some of these democratic innovations rely upon the mobilization of civil society groups—secondary associations such as neighborhood groups, self-help organizations, and advocacy groups (Cohen and Rogers 1992; Warren 2001)—while others rely on the participation of individual citizens. Some designs encourage individuals to step forward as volunteers, while others select them by lot (randomly) or stratified sampling from a relevant constituency or affected public. Others seek out only stakeholders with immediate interests in outcomes. Still others are organized around those with special knowledge or commitment.

A third dimension of design has to do with the relationship between particular democratic innovations such as citizens' councils or participatory budgeting and the more familiar institutions of representative government and administration. Sometimes, these innovations reflect an outsider's critical stance toward the official policymaking apparatus. Sometimes, innovations are the creation of political entrepreneurs who see in them the potential to connect more closely with parts of the public, enhance legitimacy, or compel change in government. To the extent that participants in these democratic innovations come to conclusions about the appropriate direction of policy or public action, their decisions are usually treated as advice to official policymakers, but sometimes their decisions are "empowered" in the sense that officials commit to act on outcomes.

By building these dimensions into *Participedia*, our aim is to address both practical and research needs. *Participedia* should help practitioners, activists, and government officials who are concerned with improving public services or enhancing public accountability to identify effective democratic innovations for accomplishing these goals. It should provide good, well-tested approaches to improving the quality of governance processes by enhancing inclusion, fair representation, depth of

participation, deliberation, and the quality of decisions. From a research perspective, social scientists and democratic theorists need to understand the scope, design, and consequences of democratic innovations. *Participedia* aims to facilitate the creation of that knowledge and capture it in a format that is open, current, and sufficiently fine-grained to enable a variety of research purposes.

HOW DOES PARTICIPEDIA WORK?

Participedia was based on MediaWiki software, but migrated to Drupal, an open-source content management platform, during the fall of 2011. The project's main content is comprised of user-contributed *case studies* of participatory governance experiences throughout the world, such as the British Columbia Citizens' Assembly Canada, Participatory Budgeting in Porto Alegre, Brazil, or Deliberative Polling in Wenling City, China. *Participedia* also contains two other kinds of articles: descriptions of *methods* of participatory and collaborative governance (e.g., citizen juries, deliberative polling) and descriptions of *organizations* in the field of participatory and collaborative governance (e.g., America Speaks, Involve, or Civicus).

There are two major components to the articles about cases and methods. The bulk of each article consists of a free text description of the case, structured by a common outline, and covering the purposes, origins, structure, decisions, consequences, and criticisms of the case. The articles also contain basic analyses of each case or method, and provide social and intellectual context as well as relevant summaries of evaluations and links to principal individuals, organizations, and documents.

Second, each article is accompanied by a set of structured data fields that contain information such as: geo-coded location, dates of operation, number of participants, sponsoring organization or government, policy area or social issue, purposes and goals of sponsors and participants, methods of selection, participation, and deliberation, and cost. As detailed below, we plan to add an expert survey component to each article. These surveys will enable users to register fine-grained judgments about how well cases or processes worked. When complete, each entry will be accompanied by key contextual, design, and outcome variables in order to provide comparability among cases. Thus one of the most important—and we think innovative—features of *Participedia* is that we ask contributors and users to provide data, in response to relatively structured questions. For researchers, the accumulation of data over time will allow evidence-based answers to the question of what does and does not work. For practitioners, the data attached to each case (or method) allows them to quickly find cases that are relevant to their issues. Rudimentary searching and browsing capability is currently built into the site. The Drupal platform will fully exploit the underlying data within *Participedia* to specify the key features of an issue or problem, and have appropriate processes returned to them. Researchers should be able to search the database on key variables, enabling them to explain the successes (and failures) of particular processes, as well as aggregate data to serve more general explanatory goals. Because the cases will be attached to these kinds of data, practitioners will be able to conduct very precise searches, returning just the information they need to design and evaluate new participatory processes.

In short, the aim of the technical and organization design of *Participedia* is to produce a seamless interface between content development, community and practitioner uses and usability, and the collection of information and data usable for research.

INSIDE THE THEORETICAL STRUCTURE OF *PARTICIPEDIA*

The research goal of *Participedia* is to relate the design features to the normative goals of the process and the nature of the issue. What kind of process is best, given the nature of the issue, the normative goals, and the constraints of budgets and time? What kinds of processes are likely to generate better rather than worse outcomes—more legitimacy, justice, or effectiveness, say—given the characteristics of the issues and the constraints of time and money?

A key assumption of *Participedia* is that these kinds of questions are best answered by accumulating cases to which structured data are attached. But to compare cases, we need to have data that is comparable, which requires that we have a fairly well developed theory of what factors are likely to be important. Fortunately, we now have a body of research that provides a good theoretical foundation. The data structure of *Participedia* is and will remain a work in process. Ideally, we want a set of data elements that is sufficiently compact that it will not exhaust those trying to contribute cases, yet rich enough to be of use to a variety of scholars. In building our data structure, we have relied upon many empirical and theoretical scholars who have worked over the past two decades in the realm of participatory and deliberative governance.

We know, for example, that combining experts with lay citizens over time within a deliberative context can overcome many of the constraints of technical complexity (Fung 2006a; 2006b; Parkinson 2006; Smith 2008; Gastil and Levine 2005). We know that processes which allow citizens to self-select will often bias a process toward organized, high-resource interests, but that random selection or stratified sampling can produce a closer approximation of informed public opinion (Fishkin 1995). We know that “enclave deliberation”—in which people deliberate only with people who hold similar views—may reinforce undesirable kinds of intolerance or extremism (Sunstein 2002). We have deep knowledge of some cases, such as the British Columbia Citizens’ Assembly (Warren and Pearse 2008). Moreover, we now possess several impressive overviews of participatory processes in specific policy areas, such as health (Abelson and Eyles 2002; Frewer and Rowe 2005) and environmental decision making (Dietz and Stern 2008). Most importantly, we also now possess several studies that seek to systematically map specific institution design features onto normative purposes and goals (Fung 2003; 2006a; Gastil 2008; Smith 2008).

The theoretical structure of *Participedia* builds on this literature. At the highest level of abstraction, we organize the characteristics of cases or processes into three broad categories: (a) the normative outcomes, (b) the nature of the issue, and (c) the design features of the process. From an explanatory perspective, we treat the normative outcomes as *dependent variables*: they are the effects of political processes that we care about. We treat features of the issue as one class of *independent variables*: issues may be more or less complex, more or less politically polarized, and so on. Design features of the process make up a second class of independent variables: they

are “independent” in that, together with issue features, they help to explain the normative outcomes in which we are interested. From a practitioner’s perspective, these are the features that we could, in principle, change (or vary) in response to issue characteristics so as to optimize normatively desirable outcomes.

Normative Outcomes of the Process

Normative reasons for designing democratic processes to deal with an issue can range from the politically pragmatic to the highly ideal. Thus, government decision makers may initially want to identify opposition to a policy and co-opt potential opponents—at the cost, of course, of admitting them into a political process (Fung 2006b; He and Warren 2011). More ideally, decision makers may seek inclusive acceptance of a policy—that is, broad legitimacy. Legitimacy itself may have normative dimensions: decision makers may seek legitimacy, for example, by seeking fair, equitable, or just policies (Parkinson 2006). Or they may simply seek to use public resources effectively and efficiently.

From an explanatory perspective, we treat these normative outcomes as dependent variables. That is, these are the effects we care about, and which we would like to explain. Thus, when *Participedia* is complete, we will ask contributors to assess the normative outcomes of a process, as well as the effectiveness of the process in achieving these outcomes. Hypothetically, these outcomes may include one or more of:

- limiting opposition to a decision or increasing acceptance,
- increasing the voice of those affected by a decision,
- increasing responsiveness of government or other organizations to those affected,
- increasing information relevant to a decision,
- increasing the deliberative quality of a decision,
- increasing distributive justice,
- developing citizen capacities,
- developing organizational capacities,
- facilitating implementation of a policy,
- increasing the efficiency of a policy, and/or
- limiting corruption or undermining patronage systems.

Normative outcomes such as these should influence political process design choices: they should be viewed as goals which can be achieved through appropriate process design. Thus, if decision makers simply want information from organized interests which may prove obstructionist, they may opt for a public hearing or stakeholder meeting. If decision makers are interested in equitable solutions, they should avoid processes that enable citizens to self-select, favoring instead random, stratified, or targeted selection of participants. If decision makers wish to develop ongoing capacities within public agencies to learn from society, the processes should ensure that nongovernmental organizations are at the table. And if a goal is to undermine corrupt patronage systems, as in many developing countries, a government might empower citizens to make budgeting decisions that were formerly made by politicians, rather than (for example) treating participatory bodies as merely advisory.

Of course, most political processes serve many purposes, which is why we will ask contributors to rank them. Moreover, it will always be the case that the perceived normative outcomes of a process will be different for differing kinds of participants. A government official may wish to limit opposition to a policy while increasing the chances of successful implementation. A representative of an advocacy organization may view the same process as a chance to increase the voices of those who are affected by the policy. For this reason, we will also want to collect information on the contributors: in particular, information about their positions and roles in processes. That said, we expect some convergence in responses of the kind that will allow cases and their associated processes to be categorized by normative outcomes.

Issue Features

Understanding what kinds of processes “work” also requires us to document characteristics of the issue or problem around which the process is designed, or to which the process responds. Issue features comprise one of two classes of independent variables, those factors we believe will have an impact on normative outcomes. We conceive of issues as having five broad classes of dimensions—which we call *kinds of goods*, *knowledge requirements*, *political complexity*, *temporal issues*, and *process resource constraints*.

Kinds of Goods

Issues can be classified according to the kind of good or goods at stake. While this class might seem to overlap with normative outcomes, here we are interested in the nature of the goods that are defined by an issue. Thus, for example, if an issue is about ethnic rivalry or tension, the goods that are inherent to the issue have to do with identity and recognition. If an issue concerns an environmental good such as air quality, the issue is inherently about a “public good”—a good defined by the characteristic that if it is provided to anyone, it is also provided to everyone. An issue such as poverty will include problems having to do with the distribution of material goods, such as food or basic income supports.

The characteristics of the goods at stake in an issue make a difference to patterns of cooperation and cleavage, and thus affect political design. Thus, for example, if a process aims to create recognition and understanding across ethnic divides, it will probably require a facilitated trust-building phase. If a process aims at a public good such as clean air, it will require enough deliberation to identify common interests in achieving that good. If a good is primarily individual and material—such as income supports to alleviate poverty—processes should be designed to deal with distributional conflicts.

Insofar as they make a difference for the design of participatory processes, we believe the key classes of goods are as follows:

- Public goods are material goods that must be provided to everyone if they are provided to anyone.
- Social goods are common non-material goods such as culture, language, community capacities, and social capital that do not cause conflicts as a consequence of distribution or participation.

- Individual material goods are goods that can be divided and distributed to individuals.
- Identity-based goods are goods having to do with individual and group interpretations of self-worth, self-esteem, recognition and affirmation by others, and place within society. Identity goods may lend themselves to deep cleavage and conflict even though they are not inherently conflictual.

Knowledge Requirements

The knowledge requirements of an issue for meaningful participation are important, but straightforward. Most policy issues require some knowledge for productive engagement, whether the policies involve genetically modified organisms, transportation options, or budget trade-offs. The more technically complex an issue, the more a process needs to enable participants to learn about the issue prior to deliberations and decisions. A related question is whether participants are likely to have prior knowledge of an issue: some issues are relatively well known to their affected publics—say levels of neighborhood crime. Other issues may be quite obscure to most people—say the biobanking of medical tissues—even though such issues have important political dimensions. For these reasons, we shall ask *Participedia* contributors to judge the relative technical complexity of the issue in question, and the extent to which productive engagement requires participants to learn. It is likely that two dimensions will be sufficient:

- technical complexity and
- prior knowledge.

Political Complexity

Political complexity is less straightforward, but enormously important to anticipate in process design choices. Indeed, identifying political complexity and matching appropriate processes is likely the key predictor of success or failure—whether a process moves toward legitimate decisions or creates more public disaffection and cynicism; whether it has an impact, or results in a report that gathers dust. Often *no* participation is better than a politically inadequate process that leaves disaffected participants in its wake.

Political complexity can be parsed out into several dimensions:

- issue polarization and cleavage;
- powerful stakeholders and well-organized interests;
- geographical concentration or dispersion;
- geographical scale;
- interdependence with identity issues;
- interdependence with other issues; and
- jurisdictional complexity: the extent to which an issue overlaps jurisdictions or is trans-jurisdictional.

Design features of participatory processes must anticipate each of these dimensions of political complexity. For example, if powerful stakeholders have an effective veto over policy outcomes, it will be important that they are included. If affected participants are geographically dispersed, new communications technologies might be integrated to reduce the effects of distance. Interdependence with many issues will require carefully constructed mandates, so that it is possible for a process to produce an outcome. High levels of issue polarization and/or overlap with identity issues will require close attention to recognition and trust-building as part of the process.

Temporal Characteristics

Each of these features of an issue affects the appropriateness of design choices, but they are not the only factors we need to take into account. We also need to take into account the *temporal* characteristics of the issue. Most basically, every political decision is temporally constrained in different ways, depending upon the timing and staging of the decision. The impacts of decisions resulting from participatory processes will often depend upon how they relate to policy decision cycles determined by factors that organizers do not control—elections or crises or legislated windows for administrative rule making, for example—that impact on the time available as well as on windows of political opportunity. Moreover, participatory processes may also require temporal sequencing; different stages will call for different processes. Early stages, for example, often call for broad, inclusive deliberations. As agendas are formed and participants become more knowledgeable, opportunities for citizen participation become more constrained. Some processes may build in ongoing opportunities for learning and revising, oriented, for example, toward changing publics, citizenries, or clienteles. In particular, we need to collect information about a process's

- temporal location in policy cycles,
- temporal location in election cycles,
- relation to crises or other time-constraining events, and
- stages within the participatory process.

Resource Constraints

Last but not least, participatory processes are always costly in terms of time, money, and citizen attentiveness. Organizations or governments that initiate processes are likely to have constraints of all kinds: extensive processes are quite costly. Organizers must sometimes deal with a scarcity of citizen attentiveness, particularly when issues are obscure, or sometimes when participatory processes—especially poorly designed or ineffective processes—have so saturated a policy area that citizens become disaffected or cynical. Finally, most processes depend upon the availability of experts in the process (such as facilitators) or policy. So we shall need to collect information about

- process budget,
- organizational capacity,
- participant attentiveness, and
- available expertise.

Dimensions of Participatory Design Choice

While those who organize participatory processes often have little choice over the features of an issue or a problem, they will often have control over how to design a participatory process to address the issue. Success, given some set of normative goals, will be determined by matching design choices to the characteristics of the issue. Higher degrees of technical complexity, for example, will require learning stages. Interdependence with identity issues or histories of exclusion may require a kind of process devoted to speaking and listening across cultural boundaries. Larger scales may require more reliance on communications technologies. Highly polarized issues may require careful initial definitions of mandates, perhaps bracketing intractable issues from those that can be resolved.

In categorizing design choices, *Participedia* follows an outline proposed by Fung (2006b), in the form of a process space he terms a “democracy cube.” The three dimensions of the democracy cube are defined by three questions: (1) What kind of *influence* does the process have? (2) Who are the *participants*? (3) What are the key methods of *communication and decision*? Each question has several dimensions.

Kinds of Influence

The influence a participatory process has can range from quite minimal to direct decision-making power. Decisions about how a process is empowered are usually determined, of course, by the kind of initiating agent. As with other dimensions of design, ideally the initiating agent has in view a specific set normative outcomes as well as features of the issue. For a government agency, for example, if legitimacy deficits loom large, decision makers may off-load decisions entirely onto citizen bodies. But if decision makers simply want to ensure that they are taking into account some range of citizens’ beliefs or preferences, they may simply constitute a citizen advisory body. Or, in other cases, participatory processes might be initiated by an advocacy group that cannot choose an empowered process, but can seek influence by developing and focusing public opinion, aiming for impact on the preferences of the public relevant to decision making.

We distinguish these possible kinds of influence:

- personal benefits for participants,
- communicative influence on relevant publics,
- advisory or consultative influence in a policy process,
- co-governance with other decision makers, and
- direct authority over decisions.

Participant Selection

Participant selection is key to many of the potential normative outcomes of participatory processes. Ideally, choices of participants would be driven by the normative goals of the process and issue characteristics. For example, decision makers who are seeking broad legitimacy for a policy might combine random selection (so as to

represent a full range of public views) with some representation of organized interests (so as to transfer the deliberations of the “mini-public” into the diffuse public sphere). Alternatively, open designs that enable participants to self-select will tend to include those who are intensely interested in an issue, but often at the expense of groups with fewer political resources, broadly affected publics, or latent public interests.

We distinguish eight kinds of selection mechanisms:

- diffuse publics, passively included via the mass media, secondary civil associations, and informal venues of discussion;
- self-selection of interested individuals and groups into open participatory venues;
- targeted recruitment of representatives of affected groups or stakeholders;
- random or stratified sampling selection of participants from an affected public;
- selection of lay stakeholders, or citizens who have a deep interest in an issue;
- selection of professional stakeholders who represent groups with a stake in an issue;
- election of individuals who serve as representatives of an electoral constituency; and
- selection of experts, included for their substantive expertise.

The Mode of Communication and Decision

A final category of design decisions has to do with the process itself. How do participants learn about an issue and about other participants? How do they communicate and deliberate their preferences? How do they make decisions? Processes of communication and decision making can range from relatively passive forms of engagement (as when participants are spectators) to decisions based on technical expertise. In between are expressions of preferences, developing preferences, bargaining, deliberating, and voting. If, for example, an issue has a long history of polarized opinion, it will be important to include deliberative elements—and even then there exist dialog processes that are specifically tailored to polarized contexts. Likewise, there are demonstrated differences of decision-rules—consensus versus voting, for example—on the nature and quality of deliberation within a process. And, as suggested above, some kinds of issue—notably those that involve public goods—will be better addressed by processes that use deliberation to find a broad consensus, rather than processes that merely aggregate preferences.

We distinguish seven modes of communication and decision making:

- listen as spectators who receive information about a policy, project, or process;
- express preferences through question and answer processes or focus groups;
- develop preferences through learning, interaction, and reflection;
- aggregate preferences through opinion surveys or similar devices;
- negotiate and bargain preferences, including seeking best joint outcomes of aggregated preferences;
- deliberation, whereby participants seek to influence one another through considered reason-giving; and
- decisions made by technical experts or administrators.

PROBLEMS OF DATA COLLECTION

By structuring these variables into *Participedia*, we hope to capture the characteristics of each case and method with enough specificity to make them comparable across contexts, and to do so in such a way that we can understand how these variables cluster—which in turn will begin to tell us about context-specific optimal participatory designs. The most innovative feature of *Participedia* is that it will collect this information in a non-traditional way: by asking contributors to provide the data. Contributors will answer survey questions as they develop text-based content. But this innovative feature of *Participedia*—crowd-sourced data gathering—is also its most challenging. Ideally, the methods for collecting should produce data that is valid: the tools should measure the concept. It should be reliable; answers to questions should be comparable across respondents.

The problems of validity and reliability are more or less difficult depending upon the kind of data. Within the structure of *Participedia* data gathering, we distinguish between data that are relatively objective and data that are more likely to incorporate subjective judgments. *Objective* data are comprised of facts about which there should be little disagreement among respondents. This kind of data we collect as discrete facts that reflect the most recent contributor's inputs and corrections. Examples would include basic information about a case—its dates, location, the kind of issue or policy, numbers of participants, and costs, for example. We do not anticipate problems in principle with this kind of data, though there may be some disagreements over how to interpret data requests. But there is a more complex kind of objective data where validity might be an issue (although not reliability, since we collect only a single data point for each question with an “objective” answer). An example would be judgments about objective features of a process. There will almost certainly be an “objective” answer to the question as how participants were selected. But respondents may not understand what “random selection” is, as opposed, say, to “targeted recruitment.” *Participedia* responds to this problem is to provide a glossary of terms that is linked to the questions. If respondents refer to the glossary, then responses should be valid.

Subjective data are comprised of contributors' judgments about which reasonable people might differ. Examples include judgments about the normative purposes of a process, their relative importance, and the extent to which they were achieved. Or judgments about the extent to which participants represented affected populations. Other such judgments will include dimensions of issues—say, the degree to which opinion is polarized, the complexity of an issue, or other such qualities.

Our approach to this kind of data will be to collect it in the form of an expert survey, which contributors will be asked to fill out when they contribute an article or edit an entry. We will, of course, need to exercise care in developing valid survey measures of these dimension, and we hope reliability will increase the more respondents fill out a survey. This part of *Participedia* is highly experimental: we are, in effect, asking contributors to self-identify as experts by virtue of their contributions to *Participedia*. We expect practitioners, scholars, students, participants in processes, and interested individuals to contribute, and we will also collect information about who they are, so we have information that relates judgments to positions and other

demographic qualities. Because we don't know how reliable this data will prove to be, we hope to test their combined expertise by selecting a limited number of cases and administering the same survey to identifiable experts.

There are other quality issues as well. As an open repository, *Participedia* is subject to vandalism, biased self-promotion, or simply poor scholarship and writing. The project will rely upon two main mechanisms to improve the quality of articles. The first is the open wiki-like editing process in which users themselves improve the quality of articles through editing and content development. Second, however, we hope to raise funds for central project staff to edit articles so that they satisfy a minimum level of completeness and accuracy. Unlike a scholarly article or report, any particular article in *Participedia* can have many authors who have not coordinated with one another. One author may alter or delete the contributions of a prior author. Although the platform tracks each of these changes and any visitor can see the entire change log, most will not seek out this information. The ultimate quality of the articles in *Participedia* depends on two factors: the wisdom of crowds and the skill of our editors. Only time will tell if these novel mechanisms produce data on participatory innovation that is more accurate, useful (in part because data are comparable), and comprehensive than conventional qualitative and quantitative social science methods. This debate can only be settled in retrospect, and may not be even then. After all, many critics of Wikipedia still favor traditional sources such as the *Encyclopedia Britannica*. Both are important and the debate is a useful one. However, we could not know whether Wikipedia would be able to challenge *Encyclopedia Britannica* in breadth and quality until it was up and running. We now know that Wikipedia far exceeds the *Encyclopedia Britannica* in breadth, and is of equal quality in most areas, the exceptions being articles in areas where the information is highly politicized. We anticipate these kinds of challenges with *Participedia*, but we will not know how serious they are, nor how to manage them, until *Participedia* is up and running.

PARTICIPEDIA NETWORKS AND COMMUNITIES

The ideal of any wiki-like project is to have a critical mass of users who will build up its content and provide the critical eyes to continuously spot and correct errors. The process of developing *Participedia*'s community is a process of discovery. Although the main objective is content, not community, we will discover and construct a community in the course of identifying contributors and modifying *Participedia* in ways that make it useful to them. We expect the primary contributors to *Participedia* to be those who have an interest in writing cases about democratic innovation and disseminating them. We believe these interests can take many forms. For example:

- scholars have an interest in making their findings about particular cases known;
- nongovernmental organizations or governments that have created participatory governance innovations want to publicize them;
- government offices and officials tasked with public engagement, particularly those who seek to evaluate or publicize their innovations;

- research organizations with an interest in the existence of archives and collections of cases;
- foundations and other donor organizations that would like the work that they have supported to be documented and evaluated; and
- students assigned to contribute as a means of learning about new democratic processes or structuring case studies.

Given this diversity, the community of “Participedians” is not obvious or self-forming. Instead, it must be self-consciously constructed if it is to exist at all. In order to develop such a self-sustaining community, *Participedia* must house content that makes individual participation and contribution worthwhile. In order to develop that initial base of content and core network of users, we will work with scholars and organizations from around the world who have already been engaged in developing knowledge about participatory governance.

We have begun to construct a community of contributors out of two social networks. The first is the academic network of scholars who are interested in the empirical study of deliberative and participatory phenomena. This is a largely university-based network that is most dense in North America and Europe but that also includes scholars in Latin America and Australia. The second network consists of nongovernmental organizations around the world that have fostered public deliberation and participation in governance. This network includes organizations such as the Deliberative Democracy Consortium, the National Coalition for Dialogue and Deliberation, LogoLink, the Citizenship Development Research Center, Civicus, and the Society for Participatory Research. We hope to draw on the collections of case studies compiled by organizations and projects such as LogoLink, the Deliberative Democracy Consortium, Vitalizing Democracy, and the National Academy of Public Administration. Some organizations may even find that *Participedia* is useful as an external repository for their cases and as a tool for their developing their own knowledge about participatory governance.

We are still exploring the ways that *Participedia* can be most useful to the individuals in these two networks and how best to make contributing to *Participedia* attractive to them. For some university-based scholars, *Participedia* has been most useful as a curricular tool. By writing articles for *Participedia*, students gain research skills, learn about the substance of participatory institutions, and increase technological literacy. Some scholars are exploring the possibility of using *Participedia* as a central empirical repository for field research projects.

For nongovernmental organizations and foundations that support work on participatory governance, contributing to or using *Participedia* may be attractive as a very low-cost and high-quality common archive for documenting projects. As a platform that is designed and edited by professional scholars, it may also be attractive to government or philanthropic funders and sponsors as an evaluation and documentation mechanism.

Participedia has only been operational since September 2009, as a rough and incomplete working prototype. We are still in the concept demonstration and refinement stage and have not advertised or promoted the site in any significant way. As of

TABLE 1
Participedia Visitors as of April 2011

<i>Country</i>	<i>Visits</i>	<i>%</i>
United States	12,477	39
United Kingdom	2,663	8
Canada	2,562	8
Belgium	1,150	4
Germany	1,145	4
India	944	3
Italy	879	3
Australia	859	3
Philippines	773	2
Sweden	721	2
Other	7,511	24
Total	31,684	100

this writing (April 2011), however, the site has cumulated 83 case articles, 51 articles on methods, and 162 articles on organizations. Although we do not have precise information, we know that articles have been contributed by university faculty, graduate students, undergraduates, practitioners in non-governmental organizations, and several by interested non-professionals.

As of April 2011, about 21,000 people had visited *Participedia* (unique visitors) since its inception with most of those visits occurring in recent months. Since January 2011, the site has received approximately 1,997 unique visitors per month. Overall, 31,684 visits (including repeat visitors) have come from 132 countries, but most visits come from North America and Europe (see Table 1).

CONCLUSION

We live in a world in which citizens of most countries are increasingly asking for involvement in collective decisions. Many governments, nongovernmental organizations, and even some corporations are responding by experimenting with participatory devices. Among the universe of political institutions, participatory institutions are among the most dynamic and rapidly changing—so much so that we have struggled to conceive, theorized, and research these developments.

Participedia is a new kind of research response: one that uses the new information technologies to organize a participatory and highly responsive to new these new developments. There are enormous challenges: it remains unclear as to whether valid and reliable social science research can be conducted in this way. That said, we have models of success in the sciences, as well as an important model of reliability in Wikipedia. *Participedia* is a more focused project that seeks to develop a relatively delimited universe of knowledge. But in other ways it is more ambitious, in that we hope to develop a participatory model of data development—which will in turn

provide us, we believe, with good answers to questions about what kinds of participatory institutions are best suited to specific purposes, issues, and conditions.

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