Conceptualizing the Quality of Transparency

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In recent years, the cross-cutting field of transparency studies has attracted considerable attention in almost every area connected with administrative scholarship, from politics, to business, public affairs and law. Transparency is important. Accessible information is the primary building block of solid democracies and markets, and transparency dispels opacity, the first refuge of corruption, inefficiency, and incompetence. In light of this importance, uses and misuses of the term demand greater attention.

Much like sweeping words such as 'accountability', transparency has attracted attention because it offers a "nicely ambivalent"[2] concept, with a positive normative charge. The word has inspired a plethora of clever catch phrases and adjectives, and voluminous research into its causes, effects, limits, and effectiveness. This scholarly effervescence, however, has not been underpinned by any collective understanding of 'transparency', much less any debate on what constitutes transparency, what does not, and how to go about assessing its quality. This paper begins to address these lacunae.

Most scholars have chosen the path of least resistance, adopting stylized definitions of 'transparency' or assuming a "we know it when we see it" attitude. People speak about things being 'semi-transparent' or 'fully transparent,' but it is not exactly clear what they mean. In short, scholars have not converged on the term with the intent of establishing parameters or measures, in the way, for example, democracy theorists have done with 'democracy' (e.g. Dahl 1971; Przeworski 1999). This oversight has not only left a critical gap in the literature, it has left 'transparency' open to conceptual stretching, uncommunicative and inaccurate neologisms ("catchwords"), and more than a few analytical blind spots.

This paper proposes a vocabulary and elements of a conceptual framework to assess the quality of transparency. As its basis, we center on two encompassing dimensions of 'transparency' that adhere to the original literal and figurative meanings of the word: 1) *visibility,* as in "light rendering an object entirely visible" (e.g. transparent glass); and 2) *inferability,* as in something that inferred with some degree of accuracy: "her anger was transparent." We suggest that these two original definitions represent two necessary conditions for 'transparency,' and that use of the term 'transparency' frequently fails to fulfill one or both necessary conditions.

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[2] This is a phrase from Andreas Schedler's classic essay "Conceptualizing Accountability" (1999), which in many ways inspired the current analysis.

Departing from these two dimensions, the paper analyzes the quality of transparency through the prism of supply-and-demand, a heuristic leveraged by other scholars in the field (e.g. Broz 2002; Fox 2007; Mitchell 1998; Rosendorff 2004). We observe that information is typically made most *visible* —the first necessary condition of transparency— when demand for information is strong. Unsurprisingly, demand is typically strongest for issues that represent acute ongoing preoccupations for average people, such as finances, health, or security. *Visibility* is a necessary condition for 'transparency' but insufficient on its own.

High quality transparency depends not only on *how visible* information is made, but on how well it lends itself to *accurate inference*. The quality of information or data is one of the bases upon which transparency systems and their evolution stand or fall. Yet scholars have tended to overlook the issue of informational quality. We propose that assessing *inferability* involves evaluating the *quality of information supplied* as well as the *incentives of suppliers*.

Information from suppliers with strong incentives to 'cook' the data merits scrutiny, as does heavily mediated information. As the degree of mediation increases—as information becomes less 'raw'—greater opportunities to manipulate or misrepresent information often present themselves. Moreover, a high degree of mediation can make it more difficult to assign responsibility for poor quality transparency. But multiple degrees of mediation are not always the culprit. Oftentimes selecting only a part —a sample— of raw information can skew perceptions even though only one degree of mediation occurred. In short, the way information is mediated affects our ability to draw verifiable inference from information— its *inferability*.[3]

Optimally, information is most useful and most easily verified when it is presented in the rawest form possible, is verified by a third-party mediator, and contains a simplifying device, such as a label or score. In other words, the most visible and inferable transparency is *raw, verified,* and *simplified*.

This paper is organized into two parts. The first part provides a review of the sprawling theoretical and empirical literature on transparency. This section seeks to illuminate how transparency evolved from a concept in which *visibility* was the most conspicuous concern, to the growing importance of *inferability* over time. Having situated the concept of transparency

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[3] We use the terms 'data' and 'information' interchangeably.

substantively, we then examine a key gap in the literature— identifying clear parameters for what is and what is not 'transparency.'

The second part of this paper fleshes out two necessary conditions for 'transparency', *visibility* and *inferability* and suggests basic guidelines that might be used to measure them. We then employ a supply-and-demand framework as a means of conceptualizing the fundamental determinants that affect the quality of transparency. The analysis suggests that high demand for transparency results in greater *visibility*, but not necessarily *inferability*, which depends on suppliers— both their incentives and the quality of information they disclose. Throughout, we apply our framework to case studies from a recent book, *Full Disclosure* (Cambridge: 2007), by Archon Fung, Mary Graham and David Weil. We end by discussing the quality of transparency in light of a revolutionary new force for openness— the open-data movement.

Part I. CONCEPTUALIZING TRANSPARENCY

1. 1   THE THEORETICAL AND EMPIRICAL ORIGINS OF TRANSPARENCY

Given that 'transparency' is etymologically and semantically associated with vision, it must have seemed awkward to apply the word —as noun, adjective or adverb— to abstract ideas (e.g. politics) or ideas combined with (visually) non-transparent solid collections of objects (e.g. parliament). For some people, it still is. Somewhat unsurprisingly given this awkwardness, it was a non-native English speaker, an academic from Denmark, who appears as the first scholar[4] to have used the term in the way we now recognize it, discussing problems of "macro-economic transparency" (Svendsen 1962).

In the 1980s the term found its first niche as an accounting principle, as in 'financial transparency.' The *visibility* of information—its presence as opposed to its absence— represented the chief concern of public policy advocates and scholars and would remain so for years to come. As this brief review will suggest, *inferability*— information lending itself to verifiable inference— was largely assumed as a given and did not emerge as a broad-based concern until relatively recently.

'Transparency's' genesis is often associated with the work of George Akerlof, Michael Spence, and Joseph Stiglitz, who ultimately won the 2001 Nobel Prize for their scholarship on

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[4] Based on an extensive search in Google Scholar and Academic Search Complete.

information asymmetries (e.g. Akerlof 1970; Spence 1974; Stiglitz 1975). The simple observation that disequilibria in the supply-and-demand of information could distort the efficiency of markets specified the properties that later lent 'transparency' its empirical and theoretical importance. Ironically, none of these Laureates employed the term until 1987 (Newbery and Stiglitz 1987).

Indeed, the term exhibited no real popularity until seismic political and economic changes began to take shape at the dawn of the Twentieth Century's last decade. The democratic transitions of the late 1980s and early 1990s in Eastern Europe, Latin America, East-Asia, and Africa spurred renewed interest in processes and concepts associated with democracy and institutions. The heavily publicized term 'glastnost,' meaning 'openness' and 'maximal publicity' in Russian—a cornerstone of Mikhail Gorbachev's reformist administration— increased the prominence of the term 'transparency' —a rough equivalent (e.g. Peterson 1995; Remington 1989). The word seemed to capture the era's *zeitgeist*; globalization and new technologies seemed to be stripping away secrecy and ideology, shining a light on human realities. Growing use of the burgeoning term suited the renewed theoretical focus on institutions, landmarked by Douglass North's Nobel Prize-winning scholarship (1993).

In the early 1990s 'transparency' also began to gain attention due the lack thereof— opacity. Public policy demands for transparency proliferated, often reflecting urgency. Conflict specialists, for example, demanded transparency in order to track Soviet weapons littered among the ex-Empire's breakaway republics. Of all the policy areas reflecting newfound interest in transparency, however, few received as much attention as economic policy. The processes accompanying democratization —market liberalization, privatization, and loans from multilateral lenders—conspicuously lacked *visibility.* Noted for their elite pacts, cronyism, and corruption, these dark areas caught the attention of political scientists (e.g. Manzetti 1999; Weyland 1998). As Carolyn Ball notes, a preoccupation with corruption led to the inception of Transparency International, an organization that significantly shaped perceptions on the concept (Ball 2009, 295-297). Transparency as an antidote to corruption gave the term emphasis as a tool for 'accountability' (Ball 2009, 302-303; Florini 1999; Fox 2007; Weitzner et al. 2008).

The emergence of the internet seemed to render countries more accountable to a global audience, as domestic events became more *visible* to policymakers and citizens around the world. In much the same way as the news media, the internet 'simulated transparency' (Balkin 1999). Yet the internet's ability to furnish greater transparency also had unintended consequences. Real-time

transparency helped investors rapidly shift their money out of markets— kindling panic runs on currencies (e.g. Kane 2000). The numerous financial crises of the mid to late 1990s provide testaments to this phenomenon, including Mexico's 1995 'Tequila Crisis' and the 'Asian Crisis' of 1997. Consequently, negative and unintended effects of transparency have spawned their own subfield within transparency studies (Cukierman 2009; Finel and Lord 1999; Hood and Heald 2006; Lord 2006).

Of course the root cause of financial crises during the 1990s stemmed not from technology but rather from opaque and mismanaged monetary and fiscal governance. Central Banks and policymakers cooked data because they lacked independence and reliable mediators (Cheney and Christensen, others 2011; Crowe and Meade 2008; Demertzis and Hughes Hallett 2007; Dincer and Eichengreen 2007; 2010; Eijffinger and Geraats 2006; Geraats 2009; Jensen 2002). In the aftermath of crises, international policymakers clearly sought to render operations more *visible* so as to achieve better *monitoring* (Cukierman 2009). But the quality of data—its *inferability*— also began to take on new importance.

Transparency became not just a tool to create *visibility* and keep policymakers accountable, but came to be seen in light of better practice standards of maintaining *inferable* data. The International Budget Partnership, initiated in 1997, became a leading proponent of this movement. Transparency also gained recognition as a boon to multilateral lenders. It helped displace blame for misused loans; taking the onus off of donors and placing them on citizens and governments. Loans frequently became conditional on the enactment of 'transparency mechanisms.' One result has been the exploding number of freedom of information laws (Ackerman and Sandoval 2005; Michener 2011); while just over a dozen freedom of information laws existed in 1990, at the end of 2010 more than five billion people in over 90 countries possessed laws.

Yet just as governments have been compelled to adopt transparency mechanisms in return for loans and other concessions, so too have citizens and politicians begun to seek greater transparency from the international and regional institutions that place conditions upon them (Blanton 2007). Transparency obligations are increasingly becoming multi-directional. Citizens have long demanded that governments surrender information on their workings, and now governments have begun to require greater transparency from their dependents (e.g. non-profit organizations), and the entities they regulate (e.g. the private sector).

Transparency—as in the *visibility* of information—has become a well established norm, yet it unsurprisingly continues to be defied. Resistance to transparency and the intractability of secrecy, especially in the context of the state, has become one of the concept's most important theoretical paradigms (Florini 1999; Michener 2010; 2011; Pasquier and Villeneuve 2007; Roberts 2006). Resistance to transparency has always implied a reluctance to make information *visible*, but it has also become clear that disclosers are often willing to obscure transparency by limiting *inferability*—verifiable inference.

The best example is one of the earliest policy areas to have embraced transparency, the corporate sector. The fraud and financial crises of the early 2000s— such as the 'creative accounting scandals' of Enron (2001), WorldCom (2002), and Tyco (2002)— confirmed the idea that while disclosed information may fulfill the condition of *visibility*, it may not always bring about verifiable inference. Because of these scandals, and because markets have increasingly become a repository for the savings of common citizens, demand for better quality transparency has increased. This demand has spurred enthusiastic academic interest in the transparency of finances and governance (e.g. Best 2007; e.g. Bushman, Piotroski, and Smith 2004). It has also led to concrete measures, such as the 2002 Sarbanes-Oxley Act (H. Rockness and J. Rockness 2005), in an attempt to guarantee the *visibility* and *inferability* of corporate information.

As the paper discusses in greater detail, the ongoing movement for transparency has a relatively new thrust, the open-data movement— a new generation of tech-savvy activists and policy specialists who seek information that is both verifiable and usable-- *inferable*. Illustrative of this trend are the initiatives of governments in New Zealand, the U.K., and the U.S., who have provided data sets and other forms of open-data, as exemplified by the U.S. website, http://data.gov. The U.S. has launched a number of Open Government Partnerships,[5] which ultimately aim to include more than 70 countries.

Transparency has thus evolved from demands for the *visibility* of information to explicit demands for its *inferability*. The demand for *inferable* information not only stems from the recognition that 'raw' data often permits greater verifiability and is more modular, but also that false transparency and unintelligible disclosures remain enduring problems. Indeed, even factual

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[5] The Open Government Partnerships are expected to be announced at the initiation of the United Nations sessions in September of 2011. India and the U.S. launched a partnership in 2010, and Brazil was invited by the U.S. in April of 2011.

transparency can have unintended consequences (Fang and Peress 2008; Lord 2006), such as slowing down government responsiveness, stifling honest deliberation among policymakers, and even spurring executives to outbid each other for higher salaries.[6]

1.2   THE CONCEPTUAL DIMENSIONS OF TRANSPARENCY

As this brief theoretical and empirical summary of the literature suggests, 'transparency' has historically served less as a theoretical gathering point and more as a descriptive heuristic. That is to say that transparency is used as a means of describing or explaining and only relatively few have approached as something to be explained (Bag and Pepito 2011; Ball 2009; Bellver and Kaufmann 2005; Breton, Galeotti, Salmon, and Wintrobe 2007; Cukierman 2009; Florini 1999; Fox 2007; Fung, Graham, and Weil 2007; B. Holzner and L. Holzner 2006; Mitchell 1998). Well-articulated definitional parameters of 'transparency' are left wanting. Scholars have tacked on adjectives to 'transparency' (e.g. Mitchell 1998), described it with metaphors (Ball 2009), or correlated it with social values (Rawlins 2009). But no one has made a point of dissecting the original literal and figurative meanings of 'transparency' in order to get at its underlying qualities.

Most empirical assessments of transparency evaluate one dimension—*visibility.* They analyze the presence, absence, or quantity of information available on websites (e.g. West 2008). But *visibility* is clearly insufficient for 'transparency' to exist. Others approach the issue of quality tangentially— by looking at what makes for 'effective' transparency policies (Finkelstein 2000; Fung, Graham, and Weil 2007). Effectiveness, however, is one causal step removed from quality.

 Scholars who do attempt to define 'transparency' offer a wide variety of definitions, usually to suit the distinct purpose of their work. Definitions run from *minimal meanings,* to *multiple embedded meanings* that address semantic and measurement-related conceptual dimensions. Table 1 illustrates examples.

[Table 1 about here]

As readily inferred from these definitions, a large degree of variance characterizes the meaning of 'transparency.' The original meanings of 'transparency' imply a state or quality. By contrast, most of the minimal definitions in Table 1 neither convey these basic parameters, nor do

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[6] McFarland, Janet. 2004. "Has Transparency Driven Executive Pay Higher." *Globe and Mail*. Apparently, making top executives' salaries transparent has led to this unintended consequence.

they agree with each other. They variously imply that transparency is volition (Hollyer et al), an animate metaphorical substance that flows (Holzner and Holzer, and Florini), and an ability (Broz). Divergence in the use of the concept 'transparency' necessarily signals increasing deviation from a collectively understood definition, in other words, conceptual stretching. As Giovanni Sartori (1970) originally argued, conceptual stretching erodes a word's ability to communicate in an analytically useful way.

1.2 a)   The Quality of Transparency as defined by *Visibility* and *Inferability*

To reiterate the parameters for 'transparency' laid out in the introduction, the parent-word 'transparent' possessed two meanings before it gained prominence as an administrative catchword for all that is open, trustworthy, participative, and accountable. One meaning was literal, embedded in the semantics of light and sight, and one figurative, signifying "readily inferred" as in, "the killer's intentions were transparent." These original meanings bring us two dimensions of 'transparency,' *visibility* and *inferability*, which represent the degree to which information is complete and easily located (visible), and the extent to which it is usable and verifiable (inferable).

As the reader might note, the concepts are presented as continuums. The idea that some information is more visible or inferable than other information falls in line with the notion that some governments might be more transparent than others. Because *visibility* and *inferability* represent 'transparency's' constituent parts, they are also to some degree overlapping concepts. Elements of '*visibility*' may have relevance for '*inferability*.' Below we discuss these concepts— what we mean when we talk about '*visibility*' and '*inferability*'— and how they might be measured.

Visibility

The *visibility of information* is one of 'transparency's' two necessary conditions. To be visible, information must be reasonably complete and found with relative ease. Let us examine these two dimensions of informational *visibility* before moving on to the concept of *inferability*.

Transparency is about information, and if information is not visible than the first and primary meaning of the parent-word, "transparent" —having to do with light and visual properties— loses its relevance. Just because something is public does not mean it is visible. To be visible, information must reflect a high degree of completeness. "Poor *visibility*," means that we are not seeing a complete picture. We talk about weather and especially precipitation in these terms, as in, "the

percentage of *visibility*." In the same way, incomplete information detracts from the extent of transparency because it cannot be viewed; it is not visible to the naked eye. The obvious dilemma here, and one that we address later, is the uncertainty of completeness.

Visibility also incorporates a second characteristic: the likelihood of finding information. To be visible is not always to be easily found. A needle protruding out of the side of a haystack may be visible but extremely difficult to locate. Information must therefore be relatively easy to locate. A related consideration is the likelihood of coming across information as a matter of course, i.e. without really looking for it. Many authors describe "effective transparency" as information that is "acted on" (e.g. Finkelstein 2000; Fung, Graham, and Weil 2007; Fung, Graham, Weil, and Fagotto 2004). It should be safe to assume that the more information "stares people in the face," the more likely it will be that people act on the information. In sum, the *visibility of information*—its completeness and likelihood of being found— represent one of transparency's two necessary conditions.

Inferability

Transparency's other necessary condition is the degree to which information is inferable. *Inferability* signifies the extent to which the information at hand can be used to draw conclusions— both about the visible information and information we do not know.[7] *Inferability* has everything to do with the *quality* of the information or data. If the data is inaccurate or obscures underlying information, it calls into question our ability to draw verifiable inferences from such information and, in turn, casts doubt on the credibility of what has been made visible. Incomprehensible or unintelligible information is unverifiable and certainly not usable.

Thus in order for information to be considered transparent, it must not only be *visible* but also *inferable*. Rather than specify a laundry list of adjectives that make information inferable —a task we leave to the good sense of our readers—our discussion focuses on specifying a critical dimension of *inferability,* the degree to which data is mediated.

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[7] The term inference has numerous interpretations. For example in the seminal book *Designing Social Inquiry* defines inference: "the process of using the facts we know to learn facts we do not know. The facts we do not know are the subject of our research questions, theories, and hypotheses. The facts we do know from our (quantitative and qualitative) data or observations" (King, Keohane, and Verba: 1994, 46). Statistical inference is concerned with making generalizations about the population on the basis of information provided by the sample. Our definition not only includes the *statistical* understanding of inference, but also the broader definition which includes the ability "to deduce or conclude (information) from evidence and reasoning rather than from explicit statements" (Oxford On-line).

The mediation of information influences its *inferability*. *Mediation* occurs in degrees: raw data on city pollution may be mediated by scientists, technicians, even political appointees before it is finally presented to the public in raw or mediated form. It may also be mediated by third party verification, such as a private lab. Finally, raw data on pollution may be mediated by giving it scores or labeling devices that make it easier to understand for the layman.

Mediation affects our ability to verify data, and it also affects its usability. Because raw data is often less mediated it reflects fewer opportunities for officials to 'cook' or 'game' data out of professional or political motivations. Second, it is easier to 're-use,' allowing it to be transformed into visualizations or web-based tools, appealing to a wider audience. R*aw* data refers to information that is close-to-the source, in its most granular form. As exhibited in Table 2, raw information is available as written information or datasets in quantitative formats: budgets expenditure information, revenues, public service delivery, and census data provide a few examples of information typically found in 'raw' form. Responses to freedom of information acts, regulation reports, and aggregated reports, by contrast, are to varying degrees mediated. Raw information is not without problems, however; a key weakness is *selection bias*, whereby only a biased sample of information is made visible, skewing the overall *inferability* of a dataset.

[Table 2 about here]

Raw information is more conducive to *inferability*, especially when it is verified by a third party and simplified by some type of label or score. Thus, if it is legal opinions we seek, original decisions should be provided. If it is public spending, then raw, disaggregated numbers are preferable to highly aggregated totals. Ultimately, both limited mediation and multiple degrees of mediation are desirable: mediators verify the accuracy of raw data, and raw data allows users to verify the product released for popular consumption. A good example is annual reports: auditors vet raw data and then publicly present raw data and mediated information, such as charts or graphs.

Towards Measuring the Quality of Transparency

The more *visible* and *inferable* information is made, the better the quality of transparency. Optimal transparency should consist of information that is complete and easy to locate (visible), and it ought to be verifiable and usable (inferable). Measuring transparency will inevitably be subjective, at least in part, and definitely contentious. But by using strict methodology (definitions) and multiple coders may produce reliable, even constructive inference. One might assess *visibility* and *inferability*

binomially (e.g. satisfactory=1 / unsatisfactory=0), or by using a simple ordinal scale (e.g. poor=1, satisfactory=2, excellent=3).

What to measure is the more difficult question. We suggest measuring *visibility* as a unified concept, and measuring *inferability* by evaluating the *appropriateness* of information presented. Three elements might be considered appropriate depending on the user-audience: information that is *raw, verified,* and *simplified*. For example, an annual report should include a) raw information, b) third party verification, and, c) a simplifying heuristic (graphs, charts, etc.). Transparency should be appropriate for the intended audience: findings in scientific journals may be methodologically transparent, but that is not to say they require a simplifying heuristic to make them comprehensible to the general public.

These are merely suggestions for operationalizing a concept that does not easily lend itself to any sort of measurement at all, and we hope other scholars will build on these ideas.

PART II. UNDERSTANDING THE QUALITY OF TRANSPARENCY

As operationalizing measurements for *visibility* and *inferability* suggests, to some extent we are forced to "trust the data"— or not. The crux of the issue has to do with two paradoxes of transparency's inescapable *moral hazards*. First, the *process of making information visible* implies that information is mediated by its discloser, providing an *opportunity* for manipulation. And second, institutions are responsible for supplying the very *informational content* that might in some sense incriminate them, giving them a *motive* to meddle with its *inferability*. The likelihood for misrepresentation or manipulation is therefore transparency's eternal dilemma. This reality forces us to weigh our demand or need for information, against trusting the supplied data, and in turn against the supplier's incentives and constraints of misreporting.

In the following pages we examine this supply-and-demand framework to better understand the quality of transparency. We first look at the scope of transparency. Then we look at how supply and demand influence the *visibility* and *inferability* of information, and apply a supply-and-demand framework to examples from a recent book by Archon Fung, Mary Graham and David Weil, Full Disclosure (Cambridge: 2007). This book has generated considerable scholarly attention because it analyzes the *effectiveness* of transparency policy, a relatively new field of research (see Appendix A for replication of their effectiveness results for eight transparency policies). Fung, Graham, and

Weil's analysis advances a complex causal argument. We show that the analysis can be vastly simplified and rendered more intuitive by considering the logic of supply-and-demand and the quality of transparency— the *visibility* and *inferability* of information.

2.1   SUPPLY AND DEMAND AND THE *VISIBILITY* OF INFORMATION

2.1 a)   Supply and Demand and the Scope of Transparency

By identifying the scope of transparency, the extent and origins of those supplying and demanding it, we can say something about the quality of transparency and how it is made public, hence what merits the label 'transparency,' and what does not.

As noted by Jonathan Fox, the supply and demand for transparency operates multi-directionally (2007, 665). As Guillermo O'Donnell similarly highlighted, in the case of governmental 'accountability', directionality is both horizontal and vertical (1999). Vertical transparency is when supply and demand operates between different levels, typically thought of as different sectors: governments supply transparency to citizens, or businesses to governments, for example. Horizontal transparency is when entities of the same level or sector supply and demand information to and from each other, as do firms within the private sector. "Collaborative transparency" (Fung, Graham, and Weil 2007, 151-169) is simply an iterated cycle of supply and demand, in which information that is made transparent travels through a process of horizontal and vertical enrichment. The news media undertakes much the same process. The main difference is that the media adds value by exposing information that is not supplied (not visible) but instead has to be 'dug up'— hence the public demand for excellent media production even in spite of overwhelming transparency (i.e. the internet).

Another aspect of scope is origin, from where transparency originates. Two conceptions of supply-side and demand-side transparency have become popularized among transparency scholars:

Transparency *supplied* by government or other organizations is information made public either voluntarily or as a means of complying with legal obligations. To varying degrees, governments, businesses, and other types of organizations are coming into line with growing demands for supply-side transparency.[8] The term often used to describe supply-side transparency is "proactive transparency." It is important to note that this term fundamentally miscommunicates the

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[8] Governments increasingly provide visible information; we discuss the degree to which it is inferable below.

fact that most suppliers are legally obligated to provide transparency. The term somehow implies that disclosure is a voluntary activity, rather than a matter of following statute.

The second type of 'transparency' is provided in response to demands, as with freedom of information laws. In this case, demand-side transparency is *assumed* transparency, because information is not visible and therefore does not fulfill one of 'transparency's' two necessary conditions. In other words, there is no guarantee that requested information will be made transparent. Indeed, as numerous studies have found, governments rarely do a complete or timely job of responding to public records laws (e.g. Knight Center 2011; Open Society Justice Initiative 2006). Thus we might describe this latent, assumed transparency as "passive transparency". But to label a government 'transparent' just because it has a freedom of information law is a premature characterization. The best word to communicate demand-side transparency is "disclosure," a word that implies the verb "to disclose"— a precondition for transparency to be *visible*, fulfilling one of its two necessary conditions. This is a much better option than the popular term 'reactive', which peculiarly communicates a negative disposition toward transparency; just as 'proactive' seems to imply good will.

2.1 b)   The Demand for Transparency Drives *Visibility*

The supply-and-demand framework is particularly critical in understanding the extent to which information is made *visible*, one of 'transparency's' two necessary conditions. High demand for a certain type of information will more likely result in visible information. This demand often emerges when citizens require information on an ongoing basis to allay acute preoccupations.

Take the example of financial reporting by private sector companies. Because losing money or savings is a constant, acute preoccupation among investors, the financial sector became one of the first milieus to adopt transparency standards. Those responsible for soliciting and retaining investors demand high levels of transparency from the private sector.

Fung, Graham, and Weil's example of Restaurant Hygiene Disclosure laws in Los Angeles provides another example of the importance of visible information and the extent to which strong demand can render transparency policies more effective. These laws mandate that letter grades (A, B, or C) of hygiene be posted on restaurant windows in L.A. by an inspector. The disaggregated data is available on searchable websites (Fung 2007:194). Not surprisingly, the authors classify Restaurant

Hygiene Disclosure as highly effective. This conclusion is unsurprising in light of demands for information on food safety.

Campaign finance transparency provides a contrasting example. Politicians and donors have obvious reasons to conceal the origin and amount of money exchanged. Indeed, we might hypothesize that in some countries demands for opacity—from private sector lobbyists and politicians—are stronger than citizen demands for transparency, which tend to be episodic and diffuse, concentrated only in a narrow segment of voter-advocate interests. In many countries, demands for checks on spending receive little press coverage because news media outlets profit from campaign spending on advertising. It is no surprise, then, that campaign finance transparency has traditionally had a poor reputation for its quality (see, for example, Scarrow 2007).

Several of the transparency systems that Fung, Graham, and Weil label as ineffective in their book, *Full Disclosure*, simply lack visible information and the attendant demand for it. For example, Hospital Patient Safety Disclosure systems are deemed ineffective by the authors. This is not surprising; demands for hospital safety information have been diffuse and episodic. Fung and his colleagues find that Patient Safety Disclosure was in most cases ineffective because information was incomplete and inaccessible. How could a 'transparency system'—as the authors qualify patient safety disclosure—possibly be 'transparent' without information being made visible? Only Minnesota reported medical errors to the public, hospital-by-hospital (2008; 191).

The proposition that demands for transparency will determine the *visibility* of information is not absolute nor is it perfect. Information asymmetries and collective action dilemmas (i.e. the free-rider dilemma) also complicate equilibrium outcomes of supply-and-demand. The extent of demands for transparency will also be mitigated by perceptions. This is to say that one country's observed 'demands' for clean government might be roughly equivalent to the next country's— the only difference being that demands are made public in one country and not in the next. The media plays a critical role in mitigating demand and, in turn, the degree to which information is made visible. For this reason, the press has been viewed as one of the primary determinants of the quality of democracy (Ahrend 2002; Besley and Burgess 2002; Norris and Zinnbauer 2002).

Demand tends to drive the *visibility* of data, but *inferability* is best understood through a careful analysis of the supply of information: the incentives and constraints of suppliers and the extent to which information is raw and how it is mediated.

2.2 INCENTIVES, MEDIATION AND THE SUPPLY OF TRANSPARENCY

2.2a) The Incentives of Transparency Suppliers

As financial scandals and government misreporting suggest, demand for transparency and its resultant *visibility* does not necessarily guarantee *inferable* information that will contribute to heightening transparency. Information was certainly *visible* prior to the 2008 financial crisis, for example, but the extent to which it was *inferable* is questionable— it was so complex as to be verifiable and usable by only a very few people. Stanford University economist John B. Taylor was not alone in placing a large part of the blame on, "the poor quality of transparency of the bank's balance sheets" (2009: 9). Considering the incentives of banks more closely may have given us cause to demand explanations— to insist on "greater transparency of transparency," so to speak.

Incentives are best approximated through methods germane to criminology: what are the means, motives and opportunities for suppliers to 'cook' or misrepresent the data? Straightforward *motives* to cook data include covering-up for incompetence, mismanagement, or malfeasance. The *means* include manipulating, omitting, or rendering information to make it unverifiable and unusable. The *opportunity* depends on the degree of mediation. Information processed by several different entities— highly mediated information— provides greater *opportunities* for misrepresentation or manipulation. As discussed, highly mediated information diffuses responsibility among multiple authorities, such that no one or everyone can be made to account for unverifiable, un-inferable information.

It is sometimes possible to transform the incentive structure to heighten the degree of *inferability*. Shifting the responsibility of reporting or monitoring to third-parties such as auditors or ombudsmen may help (Barzelay 1997; Bennett 1997). Because of auditing requirements, the quality of financial disclosure has markedly improved over time. Yet reliably sometimes wavers because private sector auditors, just like credit-rating agencies,[9] have a vested interest in pleasing the very companies that seek to misreport.

Public sector representatives auditing private sector businesses, or the reverse, might prove a more reliable option— although both imply a burden for taxpayers. Fung, Graham, and Weil's example of Restaurant Hygiene Disclosure provides a good example. In this case, the inspector

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[9] See, for example, *Inside Job* by Charles Ferguson, the 2011 Oscar winner for best documentary.

evaluates and then supplies the information and, unlike the entity being evaluated, has little incentive to "game" or misrepresent the data.

At the most basic level, incentives can be shaped by the possibility of being caught or punished. According to Fung and his co-authors, nutritional labeling ranks as 'moderately effective.' This relatively positive result is not surprising given that companies have little to gain by fudging on nutritional claims. First of all, consumers usually know that chips or Twinkies are unhealthy, but buy them anyways. Second, demand for nutritional information is relatively strong among the public and government, especially given regulatory emphases on food and the oversight of health groups. Third, there is a 'competitor' effect in the food business, where companies may squeal on competitors for faulty reporting. Finally, it is relatively easy for competing companies, advocate health groups, or government to verify nutritional claims in order to confirm their validity. Claims made on nutritional labels are easier to vet than for patient safety in hospitals, for example. In short, there are few incentives to misrepresent because the means, motives, and opportunities are limited.

Admittedly, not all suppliers' incentives are easy to understand. It may be that one mediator or another wish to draw outside attention to problems they cannot get their superiors to address; in other words, they serve as whistleblowers. At other times, companies will under-report their successes in order to avoid a backlash or to portray themselves as modest. Finally, the most obvious problem with questioning incentives is that most reporting is honest even where perverse incentives exist.

2.2b)   How Suppliers Mediate Information

Citizens have increasingly come to demand inferable data that is verifiable and usable. The way that suppliers mediate data affects the quality of information and its *inferability*. Here, we examine this relationship.

Within the Fung-Graham-Weil analysis, little attention is paid to the multiple degrees of mediation involved in several transparency systems. For Patient Safety Disclosure systems, for example, a 'medical mistake' is often subjective and difficult to quantify. One can imagine that key mediators, such as doctors, nurses, section administrators and hospital directors, among others, have few incentives to interpret medical mishaps as 'mistakes.' In this sense, mediators can use their interpretive powers to skew the data and its *inferability*. Unsurprisingly, Fung and his co-authors rank these disclosure policies as 'ineffective' to 'moderately effective.'

In contrast, the transparency systems that Fung, Graham and Weil deem most effective—Restaurant Hygiene Disclosure, Corporate Financial Disclosure, and Mortgage Lending Disclosure—all provide information that is more quantifiable, and where mediation presents fewer opportunities for subjective interpretations. Specifically, Toxic Release Disclosure information tends to be real-time, standardized in terms of format (i.e., nearly raw data), and verifiable by third-parties. Opportunities to misrepresent this data are thus sharply reduced. The same is true for Restaurant Hygiene Disclosure, where only one degree of mediation takes place: the inspector evaluates the eating establishment and then posts the results on the street-front window.

As is clear from these few examples, the distinctions between mediated and raw data are not always neat. Quality of data/information is best thought of as a continuum, with raw data subject to different types and degrees of mediation. Mediation that does not detract from *inferability*, but enriches it through verification may be welcome, whereas mediation that misrepresents or complicates raw information obviously diminishes *inferability* and thus the quality of transparency.

2.2 c)   The Open-Data Movement and the Supply of Inferable Information

This discussion regarding the mediation of data is critical because of its timeliness; the open-data is all about the quality and formatting of information. Open-data advocates increasingly clamor for open-format applications that use application programming interfaces (APIs) and provide data that is downloadable, machine readable, platform-independent, and open. 'Closed' formats are eschewed because they are less 'usable' and thus provide fewer opportunities to generate inference. The open-data movement is a key reason why *inferability* is becoming increasingly important.

The open-data movement employs data for creation—making visualizations and applications. Technologists use software and web-based tools to 'scrape' data from webpages, aggregate and analyze it using their own resources (Berners-Lee, 2010; Brito, 2009).[10] They re-use data to create web and smart phone based applications: interactive maps illustrating development indicators or smartphone applications providing route maps and arrival and departure information (Gant and Turner-Lee 2011:22), for example. Data and creativity are also being leveraged to enhance accountability: from visualizations on taxation and spending,[11] to websites that help citizens share

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[10] For a summary of the "Raw data now" movements see Beyond Access: Draft Report for Consultation 2010:58.
[11] See, for example, <http://measureofamerica.org>, or the various projects undertaken by <http://www.mysociety.org/> or <www.omidyar.com>.

credible news sources,[12] reveal what legislators are buying,[13] or facilitate freedom of information requests.[14] Open-data initiatives have the potential to boost accountability in government by providing 'fire-alarm' oversight (McCubbins and Schwartz 1985) through greater transparency.

The frontiers of transparency on the web, particularly the dimensions of *inferability*, are being pushed even further with the 'the semantic web' movement. At the root of a semantic web is the idea that information on the web needs to be legitimized or given meaning by linking and tagging data with metadata, to be more readily followed by users and read by computers. Metadata can be used by natural language queries (e.g. Wolfram Alpha), which allow people to ask complicated questions in regular speak— for example: "campaign contributions for Obama and McCain"—and get answers.

The open-data movement promises to heighten the quality of transparency because its advocates are dedicated and resourceful. Traditional supporters of transparency —archivists, policy wonks, anti-corruption advocates, rights activists, and the media— are now receiving support from a powerful ally. The community is strong: 'Hackdays'[15] have become a regular occurrence in the open-data movement, wherein technologists and transparency advocates come together for entire days or weekends to design new projects centered around open-data. The community is also backed by influential foundations and philanthropists, including Google, the Omidyar Network, the Open Knowledge Foundation, the Soros Open Society Foundation, and the World Wide Web Consortium, among others.

Given the influence of these cutting-edge movements, a growing number of governments have yielded to demands for visible and inferable information, uploading open or raw data in CSV and other formats (i.e. spreadsheet data).[16] Political repercussions are only beginning to be felt. Wikileaks represented an early initial foray into the world of open-data activism. Those most likely to resist demands for transparency—governments and corporations, for starters— are often one step behind open-data advocates.

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[12] See, for example, <http://newstrust.net/>.
[13] See, for example, <http://wheredoesmymoneygo.org/>.
[14] See, for example, <http://www.accesointeligente.org/AccesoInteligente/>.
[15] See, for example, <http://www.opendataday.org/>.
[16] See, for example, <http://data.gov.uk> or <http://data.gov/>.

Conclusion

Transparency is a slippery concept but important enough that it should be handled with some degree of precision. In this paper we provided a vocabulary and framework for thinking about the quality of transparency, which depends on two necessary conditions: the *visibility* of information, and its *inferability*—our ability to draw verifiable conclusions. These represent the literal and figurative meanings of the word 'transparency,' and interestingly, the conceptualization of 'transparency' has moved slowly over time from the literal to the figurative. *Visibility* initially represented the primary focus of scholars and advocates. With the realization that "all that is visible is not verifiable or usable" and increasing demands from open-data advocates, transparency's figurative meaning has come to the fore— *inferability*. In the sense that information must be verifiable to be inferable, we are asserting that information frequently masquerades as transparency, false transparency, so to speak.

But false transparency should be systematically differentiated from low-quality transparency; although making out the dividing line is, admittedly, a difficult task. Another problem is the tendency to conflate 'information' with 'transparency.'[17] What makes Transparency different from information is its accessibility, yet some transparency systems —by the nature of the information or their suppliers—are simply less accessible, and less likely to result in *visible* and *inferable* information, and in turn, reflect lower quality transparency. The parameters presented in this paper allow for distinguishing varying degrees of quality, and future research might suggest more appropriate benchmarks and indicators for judging the quality of transparency, as well as providing salient case studies and examples.

Empirical work is also needed to further clarify the relationship between the supply and demand for information and the quality of transparency. In the second part of the paper we laid out a framework suggesting that the quality of transparency responds to the degree of demand and is dependent on the incentives of its suppliers to furnish minimally mediated information. While strong demands have tended to increase the *visibility* of information, they have not always had the effect of ensuring its *inferability*. *Inferability* is in many ways at the mercy of suppliers, who often must be motivated to release quality information through carrots and sticks.

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[17] The observation about conflation was David Sasaki's. Personal Communication, Apri, 2011.

Demands for inferable information can ultimately change the incentives of suppliers and result in quality transparency, but demands must be of the kind we have recently witnessed in the Middle-East— applied and persistent. Demands for better quality transparency are now being incubated by first-world policymakers who appear to be using greater openness as a backdoor strategy to advance *democracy*-promotion. The current push for open government undoubtedly aims to help democracy advocates in China, Russia, and Iran, among other authoritarian regimes, create the sort of opening that led to the democratization of much the Soviet Empire. Many authoritarian regimes have begun to play the 'transparency' card. Russia, for example, enacted a freedom of information law in 2009, which may be just enough transparency to keep the veneer of public interest in place. The effects of the 'age of transparency,' and indeed the plenitude of the age itself, have yet to be fully known.

Works Cited

Ackerman, John, and Irma Sandoval. 2005. "The Global Explosion of Freedom of Information Laws." *Administrative Law Review* 58(85): 85-130.

Ahrend, Rudiger. 2002. "Press Freedom, Human Capital and Corruption." *DELTA Working Paper* 11. http://econpapers.repec.org/paper/delabcdef/2002-11.htm.

Akerlof, George A. 1970. "The market for 'lemons': Quality uncertainty and the market mechanism." *The quarterly journal of economics* 84(3): 488–500.

Bag, Parimal Kanti, and Nona Pepito. 2011. "Double-edged transparency in teams." *Journal of Public Economics*. http://www.sciencedirect.com/science/article/B6V76-523M87X-2/2/725fc58b96f490ee4867de5bbff08b2e (Accessed March 28, 2011).

Balkin, Jack M. 1999. "How Mass Media Simulate Political Transparency." *Cultural Values* 3: 393-413.

Ball, Carolyn. 2009. "What is Transparency." *Public Integrity* 11(4): 293-307.

Bellver, Anne, and Daniel Kaufmann. 2005. *Transparenting Transparency: Initial Empyrics and Policy Applications*. Initial Draft.

Besley, Timothy, and Robin Burgess. 2002. "The Political Economy of Government Responsiveness: Theory and Evidence from India." *Quarterly Journal of Economics* 117(4): 1415-1451.

Best, Jacqueline. 2007. *The Limits of Transparency: Ambiguity and the History of International Finance*. Ithaka: Cornell University Press.

Blanton, Thomas. 2007. "The Struggle for Openness in the International Financial Institutions." In *The Right to Know*, New York: Columbia University Press, p. 243-279.

Breton, Albert, Gianluigi Galeotti, Pierre Salmon, and Ronald Wintrobe, eds. 2007. *The economics of transparency in politics*. Ashgate Publishing, Ltd.

Broz, J. Lawrence. 2002. "Political System Transparency and Monetary Commitment Regimes." *International Organization* 56(04): 861-887.

Bushman, Robert M., Joseph D. Piotroski, and Abbie J. Smith. 2004. "What Determines Corporate Transparency?" *Journal of Accounting Research* 42(2): 207-252.

Cheney, G., and L. T Christensen, others. 2011. "Numbers of Transparency-Transparency of Numbers."

Crowe, C., and E. E Meade. 2008. "Central bank independence and transparency: Evolution and effectiveness." *European Journal of Political Economy* 24(4): 763–777.

Cukierman, Alex. 2009. "The Limits of Transparency." *Economic Notes* 38(1-2): 1-37.

Demertzis, M., and A. Hughes Hallett. 2007. "Central bank transparency in theory and practice." *Journal of Macroeconomics* 29(4): 760–789.

Dincer, N., and B. Eichengreen. 2010. "Central bank transparency: Causes, consequences and updates." *MONEY* 11(1): 5.

———. 2007. "Central bank transparency: where, why, and with what effects?" *NBER working paper*.

Eijffinger, S. C.W, and P. M Geraats. 2006. "How transparent are central banks?" *European Journal of Political Economy* 22(1): 1–21.

Fang, Lily H., and Joel Peress. 2008. "Media Coverage and the Cross-Section of Stock Returns." *SSRN eLibrary*. http://ssrn.com/paper=971202 (Accessed August 28, 2010).

Finel, Bernard I., and Kristin M. Lord. 1999. "The Surprising Logic of Transparency." *International Studies Quarterly* 43(2): 325-339.

Finkelstein, Neal D. 2000. *Transparency in public policy: Great Britain and the United States*. Basingstoke: Macmillan.

Florini, Ann. 1999. "Does the invisible hand need a transparent glove? The politics of transparency." In *Annual World Bank Conference on Development Economics*, Washington, D.C. Washington, DC.

Fox, Jonathan. 2007. "The Uncertain Relationship between Transparency and Accountability." *Development in Practice* 17(4): 663-671.

Fung, Archon, Mary Graham, and David Weil. 2007. *Full Disclosure: The Perils and Promise of Transparency*. Cambridge University Press.

Fung, Archon, Mary Graham, David Weil, and Elena Fagotto. 2004. "The Political Economy of Transparency: What Makes Disclosure Policies Sustainable?" *SSRN eLibrary*. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=384922 (Accessed August 1, 2010).

Geraats, P. M. 2009. "Trends in Monetary Policy Transparency*." *International Finance* 12(2): 235–268.

Holzner, B, and L Holzner. 2006. *Transparency in Global Change: The Vanguard of the Open Society*. University of Pittsburgh Press.

Hood, Christopher, and David Heald. 2006. *Transparency*. Oxford: Oxford University Press.

Jensen, Henrik. 2002. "Optimal Degrees of Transparency in Monetary Policymaking." *Scandinavian Journal of Economics* 104(3): 399-422.

Kane, Edward J. 2000. "Capital movements, banking insolvency, and silent runs in the Asian financial crisis." *Pacific-Basin Finance Journal* 8(2): 153-175.

Knight Center. 2011. "Glass Half Full - The Knight Open Government Survey." http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB338/index.htm (Accessed March 14, 2011).

Lord, Kristin M. 2006. *The Perils and Promise of Global Transparency*. Albany: SUNY Press.

Manzetti, Luigi. 1999. *Privatization South American Style*. Oxford: Oxford University Press.

Michener, Greg. 2011. "The Promise of Freedom of Information Laws." *Journal of Democracy* 22(2).

———. 2010. *The Surrender of Secrecy: Explaining the Emergence of Strong Access to Information Laws in Latin America*. Austin, TX: The University of Texas at Austin. Unpublished Dissertation. http://gregmichener.com/Dissertation.html.

Mitchell, Ronald B. 1998. "Sources of Transparency: Information Systems in International Regimes." *International Studies Quarterly* 42(1): 109-130.

Newbery, D. M, and J. E Stiglitz. 1987. "Wage rigidity, implicit contracts, unemployment and economic efficiency." *The Economic Journal*: 416–430.

Norris, Pippa, and Dieter Zinnbauer. 2002. *Giving Voice to the Voiceless: Good Governance, Human Development & Mass Communications*. UNDP. Human Development Report. http://hdr.undp.org/docs/publications/background_papers/2002/Norris-Zinnbauer_2002.pdf.

O'Donnell, G. 1999. "Horizontal Accountability in New Democracies." In *The Self-Restraining State: Power and Accountability in New Democracies*, eds. Andreas Schedler, eds. , Larry Diamond, , and , eds. , Marc F. Plattner. Boulder: Lynne Rienner, p. 29-63.

Open Society Justice Initiative. 2006. *Transparency & Silence: A Survey of Access to Information Laws and Practices in Fourteen Countries*. ed. Helen Darbishire. New York: Open Society Institute. www.soros.org/initiatives/justice/focus/.../transparency_20060928.

Pasquier, Martial, and Jean Pierre Villeneuve. 2007. "Organizational barriers to transparency: a typology and analysis of organizational behaviour tending to prevent or restrict access to information." *International Review of Administrative Sciences* 73(1): 147.

Peterson, John. 1995. "Playing the Transparency Game: Consultation and Policy-Making in The European Commission." *Public Administration* 73(3): 473-492.

Rawlins, Brad. 2009. "Give the Emperor a Mirror: Toward Developing a Stakeholder Measurement of Organizational Transparency." *Journal of Public Relations Research* 21(1): 71.

Remington, Thomas F. 1989. "Renegotiating Soviet Federalism: Glasnost and Regional Autonomy." *Publius: The Journal of Federalism* 19(3): 145 -165.

Roberts, Alasdair. 2006. *Blacked Out: Government Secrecy in the Information Age*. New York: Cambridge University Press.

Rockness, H, and J Rockness. 2005. "Legislated Ethics: From Enron to Sarbanes-Oxley, the Impact on Corporate America." *Journal of Business Ethics* 57(1): 31-54.

Rosendorff, Peter. 2004. *Democracy and the Supply of Transparency*. Montreal: Paper Presented at the International Studies Association. http://www.nyu.edu/gsas/dept/politics/faculty/rosendorff/Transparency.pdf.

Sartori, Giovanni. 1970. "Concept Misformation in Comparative Politics." *The American Political Science Review* 64(4): 1033-1053.

Scarrow, S. E. 2007. "Political Finance in Comparative Perspective." *Annual Review of Political Science* 10: 193.

Schedler, Andreas. 1999. "Conceptualizing Accountability." In *The Self-Restraining State: Power and Accountability in New Democracies*, eds. Andreas Schedler, eds. , Larry Diamond, , and , eds. , Marc F. Plattner. , p. 13–28.

Spence, Michael A. 1974. "An Economist's View of Information." *Annual Review of Information Science and Technology* 9: 57-78.

Stiglitz, J. E. 1975. "Incentives, risk, and information: notes towards a theory of hierarchy." *The Bell Journal of Economics* 6(2): 552–579.

Svendsen, Knud Erik. 1962. "Are the two systems converging?" *Economics of Planning* 2(1): 195–209.

Weitzner, Daniel J. et al. 2008. "Information accountability." *Communications of the ACM* 51(6): 82–87.

Weyland, Kurt G. 1998. "The Politics of Corruption in Latin America." *Journal of Democracy* 9(2): 108-121.

Tables

EXAMPLES OF MINIMAL MEANINGS OF TRANSPARENCY	*Table 1*

EXAMPLES OF MINIMAL MEANINGS OF TRANSPARENCY *Table 1*

Burkart Holzner and Leslie Holzner (2006)*:* "the open flow of information."

Tara Vishwanath and Daniel Kaufman (1999) *and Daniel Kaufman* (2002)*:* " the increased flow of timely and reliable economic, social and political information, which is accessible to all relevant stakeholders."

Ann Florini (1999): "the release of information by institutions that is relevant to evaluating those institutions."

Hollyer et al (2011): "a government's willingness to disseminate policy-relevant data."

Lawrence Broz (2002): "Transparency is the ease with which the public can monitor the government."

Tong (2007): "the precision of public information."

EXAMPLES OF MULTIPLE EMBEDDED MEANINGS OF TRANSPARENCY

Bernard Finel and Kristin Lord (1999): "Transparency comprises the legal, political, and institutional structures that make information about the internal characteristics of a government and society available to actors both inside and outside the domestic political system."

Carolyn Ball (2009): puts forward three "metaphors" that contain the multiple meanings of transparency: 1) "Transparency is the counter to corruption"; 2) "Transparency is open government and organizations"; Transparency as complexity, as "a component of good policy."

Grace Pownall and Katherine Schipper (1999): [finance] "Standards that reveal the events, transactions, judgments, and estimates underlying the financial statements, and their implications."

Luis Andres, José Luis Guasch, Sebastián Azumendi (2008): "The procedures, mechanisms, and instruments aimed at guaranteeing the closure and publication of relevant regulatory and institutional information, the participation of stakeholders in the agency's regulatory decisions and decision-making, and the application of rules aimed at governing the integrity and behavior of agency officials."

Table 2

TYPES OF INFORMATION

Raw	Mediated
Census data	Responses to freedom of information acts
Budget expenditures	Regulatory reports
Video (live and archived) of all legislative activities and public meetings	Information about government benefits and services, licenses, registrations,
Transit data	Information about events and activities.
Twitter feeds	Aggregated reports
Information on transactions completed on-line	PDFs
Restaurant Hygiene Disclosure (Fung, Graham, Weil 2007: 193-194)	Medical Mistakes Disclosure (Fung, Graham, Weil 2007: 189-191)
Mortgage Lending Disclosure (Fung, Graham, Weil 2007: 203-205)	Plant Closing/Mass Layoff Disclosure (Fung, Graham, Weil 2007: 205-206)
Cabinet notes, legal briefs or decisions	Workplace Hazards Disclosure (Fung, Graham, Weil 2007: 186-187)

APPENDIX A

Disclosure System	Evaluation of Transparency System Effectiveness	Public Policy Goals
Corporate Financial Discloser	Highly Effective	Capital market efficiency; reduce risks to investors; improve corporate governance
Restaurant Hygiene Disclosure	Highly Effective	Reduction of public health risk
Mortgage Lending Discloser	Highly Effective	Reduce housing market discrimination through home lending practices
Nutritional Labeling	Moderately Effective	Reduce risks of disease; improve nutrition
Toxic Releases Discloser	Moderately Effective	Reduce toxic pollution
Workplace Hazards Discloser	Moderately Effective	Reduce worker exposures to risks
Patient Safety Disclosure	Ineffective	Improve performance of cardiac surgery procedures
Plant Closing, Mass Layoff Disclosure	Ineffective	Lower the costs associated with major economic dislocation from closures/layoffs
	Recreated from Table 4.5 (Fung et al 2007: 79-80)	Recreated from Table 4.4