Identifying transparency

Greg Michener\textsuperscript{a,b,*} and Katherine Bersch\textsuperscript{b}
\textsuperscript{a}Brazilian School of Public and Business Administration (EBAPE), Fundação Getúlio Vargas, Praia de Botafogo, RJ, Brazil
\textsuperscript{b}Ph.D. Candidate, Department of Government, University of Texas at Austin, Austin, TX, USA

Abstract. Recent scholarship on transparency has been voluminous, and transparency policies continue to garner international adherents through global initiatives such as the Open Government Partnership. Yet extant scholarship has failed to address the empirical parameters for what constitutes ‘transparency’ and what does not. This lacuna gives way to misuses and abuses, jeopardizing the analytical utility of the term and the integrity of so-called ‘transparency’ policies. This article provides a framework and a vocabulary for identifying and evaluating transparency, which depends on two necessary and jointly sufficient conditions: the visibility of information, and its inferability – the ability to draw accurate conclusions from it. By disaggregating these two conditions for identifying transparency, this article provides a framework for the emerging research agenda on the quality of transparency.

Keywords: Transparency, information and communication technologies, public administration

1. Introduction

In recent years, the cross-cutting field of transparency studies has attracted attention in almost every area connected with administrative scholarship, from politics, to business, public affairs, communication studies, and law. Transparency dispels opacity, the first refuge of corruption, inefficiency, and incompetence; and it addresses asymmetries that prevent reliable information from serving as building blocks for resilient democracies and markets.

Yet the promising nature of transparency initiatives is to some extent cast into doubt by dubious interpretations of ‘transparency’ and related concepts. The root problem is the term’s consistent ambiguity. Much like sweeping words such as ‘accountability’, ‘transparency’ offers a “nicely ambivalent”\textsuperscript{1} 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. Authors have theorized on the conceptual properties of transparency, correlated transparency with laundry-lists of related concepts, or, more frequently, have chosen the path of least resistance by assuming a “we know it when we see it” approach. The scholarly effervescence on transparency has not, however, been underpinned by any collective empirical understanding of the concept; in other words, what constitutes transparency, what does not, and how to go about identifying and assessing it.

In short, scholars and policy advocates have not converged on the term with the intent of establishing parameters or measures, in the way, for example, political scientists have done with ‘democracy’ [6,
This oversight has not only left a critical gap in the literature, it has left ‘transparency’ open to conceptual stretching, undifferentiated from ‘information’, and susceptible to uncommunicative and inaccurate neologisms (“catchwords”), and more than a few analytical blind spots. The predictable result is that slipshod uses of the term abound, giving way to inaccurate statements and poorly conceptualized policies. In light of the term’s theoretical and real importance, uses and misuses of the ‘transparency’ demand greater attention.

This paper begins to address these issues by proposing a vocabulary and elements of a conceptual framework to address what is ‘transparency’ and what is not. We advance a minimal, multi-disciplinary definition that is theoretically and, to the extent possible, normatively agnostic. Such a definition is not only important because of what it may help discourage – inaccurate use of the term and misguided policies – but also because of its analytical utility in evaluating the potential effectiveness of transparency policies.

‘Transparency’ embodies two necessary and jointly sufficient conditions that adhere to the original literal and figurative meanings of the word – visibility and inferability: 1) visibility, as in “light rendering an object entirely visible”; and 2) inferability, that which can be inferred with some degree of accuracy e.g. “the author’s contempt for populist politics was transparent”. We show that use of the term ‘transparency’ frequently fails to fulfill one or both necessary conditions. Far from idealizing the concept of ‘transparency,’ our bi-dimensional conceptualization allows for continuous degrees of transparency, from poor to excellent quality and all points in between.

Our view on transparency, however, must admit one leading assumption: transparency is recorded information. An assembly may come to a decision through open proceedings, but to outsiders that process is not ‘transparent’ unless a record of these proceedings is made visible or audible (in which case, the recording is visible). The principle of visibility is precisely why legislative transcripts and recorded votes have become the sine qua non of the parliamentary transparency movement. There is no procedural transparency without a record; there is only outcome.

This paper is organized into two parts. The first part provides a review of the theoretical and empirical literature on transparency. Rather than aspiring to a comprehensive review of a sprawling, cross-disciplinary literature, 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 substantively, the second section fleshes out transparency’s constituent parameters, visibility and inferability. The third and final section concludes.

2. The theoretical and empirical origins of transparency

Given that ‘transparency’ is etymologically and semantically associated with vision, it must have initially seemed awkward to apply the word – as noun, adjective or adverb – to abstract ideas (e.g. politics) or non-transparent solid collections of objects (e.g. parliament). Somewhat unsurprisingly, it was a non-native English speaker, an academic from Denmark, who appears as the first scholar to have used the term in the way we now recognize it, discussing problems of “macro-economic transparency” [39].

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 preoccupation of public policy advocates and scholars and would remain so for years to come. As this brief review suggests, inferability – information lending itself to verifiable inference or conclusions – 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 information asymmetries [22, 37, 45]. The 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 in print until 1987 [17].

Indeed, ‘transparency’ did not become popularized 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 spurred renewed interest in processes and concepts associated with democracy and institutions. The heavily publicized term ‘glasnost’, meaning ‘openness’ and ‘maximal publicity’ in Russian – a cornerstone of Mikhail Gorbachev’s fateful reforms – increased the prominence of the concept ‘transparency’, which is a rough equivalent (e.g. [35, 55]). The term subsequently fit into a renewed theoretical focus on institutions, landmarked by Douglass North’s Nobel Prize-winning scholarship [18].

The consolidation of democracy and the concurrent sale of state-owned enterprises gave rise to concerns for transparency precisely because of a growing preoccupation with its opposite – opacity. Conflict specialists demanded transparency in order to track Soviet weapons littered among the ex-Empire’s breakaway republics. Public policy specialists, advocates, and the news media sought to shed light on processes of democratization and privatization. Elite pacts, cronyism, and corruption, among other dark areas, caught the attention of political scientists (e.g. [40, 42]). Critically, they also led to the inception of Transparency International, an organization that significantly shaped perceptions on the concept [12, pp. 295–297]. Transparency as a potential antidote to corruption gave the term emphasis as a tool for ‘accountability’ [4, 12, 19, 32]. Transparency became an important independent variable in explaining corruption and accountability.

Unsurprisingly, use of the term ‘transparency’ also gained prominence concurrent with the emergence of an unprecedented vehicle for transparency – the internet. While the internet rendered information more visible, it produced several unintended consequences. Real-time financial transparency coupled with the lightning speed of information technology allowed investors to rapidly shift their money in and out of markets – kindling several panic runs on currencies during the 1990s [21]. Mexico’s 1995 ‘Tequila Crisis’ and the ‘Asian Crisis’ of 1997 are testaments to this phenomenon. Transparency’s negative and unintended effects have consequently spawned their own subfield within transparency studies [3, 9, 15, 38].

The root cause of financial crises during the 1990s, however, stemmed not from technology but rather from opaque and mismanaged monetary and fiscal governance. Operating in Central Banks and Treasuries that lacked transparency and independence, policymakers cooked the data or simply hid disasters in the making until it was too late [13, 27, 43, 46, 49, 53]. In the aftermath of crises, international policymakers clearly sought visibility as a means of improved monitoring [3].

An emphasis on visibility for monitoring purposes also served multilateral lenders in another sense. Long criticized for lending money to corrupt leaders, financial institutions such as the World Bank and International Monetary Fund now possessed a means of displacing the blame they had traditionally received for giving corrupt or incompetent leaders loans that were misused, stolen, or lost. The adoption of transparency mechanisms became a precondition for securing loans from donors. One result was the explosion of freedom of information laws [24, 29]; while just over a dozen freedom of information laws existed in 1990, at the end of 2012 more than 90 countries possessed laws.

Yet just as multilateral organizations have compelled governments to adopt transparency mechanisms, so too have citizens and politicians begun to seek greater transparency from their multilateral benefactors [54]. Transparency obligations are increasingly 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), as well as the entities they
regulate (e.g. the private sector).

Secrecy still persists, even though transparency, as in the visibility of information, has become a well-
established norm. The intractability of secrecy, especially in the context of the state, has become one of
transparency’s most important theoretical paradigms [4,7,24,25,44]. Resistance to making information
visible has long been the focus of advocates, but it has also become clear that the transparency of visible
information is also limited by its inferability – verifiable inference.

Visibility and monitoring have proven insufficient; transparency advocates now seek common stan-
dards to ensure the inferability of information. The International Budget Partnership, initiated in 1997,
became a forerunner of standards-based transparency. By promoting the adoption of common standards
in fiscal reporting, the Budget Partnership has sought to make information more user-friendly and veri-
fiable – more inferable.

Reactions to corporate sector misgovernance also drove demands for more inferable information. The
fraud and financial crises of the early 2000s – such as the “creative accounting scandals” of Enron
(2001), WorldCom (2002), and Tyco (2002) – increased demands for better quality transparency. The
technologically-driven trend of self-managed consumer investing has also fuelled demand for simpler,
verified information. As a result of both of these trends, academic interest in the transparency of finances
and governance has proliferated [30,50]; so too have government responses, as exemplified by the 2002
Sarbanes-Oxley Act [28]. These trends have placed increasing emphasis on inferable information and
standards-based transparency.

Champions of transparency have a relatively new and vital advocate, the open-data movement. Re-
flecting the best principles of inferability and visibility, the open data movement places an emphasis on
raw data, verification and simplification. The goal is to create visualizations and applications based on
data and massive diffusion. Governments in countries around the globe have begun to join this movement
through initiatives such as the Open Government Partnership and the Extractive Industries Transparency
Initiative, providing data sets and tools for analysis.

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 unin-
telligible disclosures remain enduring problems. Indeed, even factual transparency can have unintended
consequences [38,41], such as slowing down government responsiveness, stifling honest deliberation
among policymakers, and even spurring executives to outbid each other for higher salaries.2

3. Transparency’s constituent parameters

As this brief theoretical and empirical summary of the literature suggests, ‘transparency’ has histori-
cally 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 phenomena, but only rarely approached
as something to be explained [1–5,10,12,32,48,52]. As a result, well-articulated definitional parameters
of ‘transparency’ are left wanting. Scholars have tacked on adjectives to ‘transparency’ [52], described

cutives’ salaries transparent has led to this unintended consequence.
it with metaphors [12], analyzed its directionality [16,32], illuminated dichotomous varieties of transparency [16] or correlated it with social values [11]. 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 [20]. But visibility is clearly insufficient for ‘transparency’ to exist. Others approach the issue tangentially – by looking at what makes for ‘effective’ transparency policies [5,47]. Effectiveness, however, must first rely on a grounded definition of what transparency means.

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.

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 they agree with each other. They variously imply that transparency is volition [34], an animate metaphorical substance that flows [10], or an ability [31].

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 [26] originally argued, conceptual stretching erodes a word’s ability to communicate in an analytically useful way because it leads to vague or amorphous usages. In Sartori’s framework, increasing the concept’s ‘extension’ diminishes the word’s ‘intention,’ or specificity. Sartori also viewed this problem to be accentuated by ‘traveling’ – when a concept is translated from one context or discipline into another. Given the inter-disciplinary enthusiasm for ‘transparency’ as a concept, and the normative appeal of the term, the danger of misuse and abuse – of conceptual stretching – deserves both recognition and remediation.

3.1. Transparency: Visibility and inferability

To restate the parameters for ‘transparency’ laid out in the introduction, the parent-word ‘transparent’ possesses two meanings, one literal and embedded in the semantics of light and sight, and one figurative, signifying “readily inferred” as in, “his abuse of office was 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 can be used to draw accurate conclusions (inferable), which in turn depend on how information is mediated.

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’. This conceptual overlap occurs in part because as necessary conditions these dimensions are jointly sufficient to produce ‘transparency’.

At first glance, inferability alone may appear to be a sufficient condition for the existence of ‘transparency,’ because it may be supposed that inferability subsumes the concept of visibility. But speech is inferable though it is not visible, and by our definition speech is not truly transparent unless it is recorded, as in parliamentary transcripts of debates, or reflects “procedural transparency” [16] in the sense that it can be listened to or watched at any moment (e.g. an online video).

One asymmetry embodied within our definition of transparency is that the qualities of visibility are intrinsic to the information, whereas inferability is also contingent on the receptive capacity of the intended
audience. For instance, although mathematical formulas describing inflation may be visible, not all people will understand unsimplified mathematics, hence inferability depends on the target audience. This asymmetry suggests an interactive concept, and it is also why we insist on what qualitative scholars refer to as a ‘family resemblance’ framework for conceptualizing inferability [23]. Within this framework, the degree of inferability increases as attributes are added, and attributes are substitutable as opposed to being necessary conditions. For instance, information may be rendered more inferable by the attribute of a simplifying heuristic, such as a pie chart, or it might be presented in disaggregated form or verified by a third party. All of these attributes – which are all forms of mediation – tend to increase the inferability of information, meaning that they help lead us to more accurate conclusions. This framework will become clearer in the next sections, where we flesh out the concepts of ‘visibility’ and ‘inferability’ in greater detail.

3.2. Visibility: The degree to which information is complete and ‘findable’

The visibility of information is a necessary condition for there to be transparency. To be visible, information must be a) reasonably complete and b) found with relative ease.

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. The terms ‘active’ transparency (that which is voluntarily or obligatorily rendered visible) and ‘passive’ transparency (that which can be requested) are often associated with open records laws, such as freedom of information. But public records are not ‘transparent’ if they are locked away in a government agency; nor is a government ‘transparent’ just because it possesses a freedom of information law. Only when those records are rendered visible does transparency become manifest.

To be visible, information must first reflect a high degree of completeness. “Poor visibility”, means that we are not seeing a complete picture. We talk about weather in these terms, as in, “the percentage of visibility”. In the same way, incomplete information presents an incomplete picture. Knowing when information is complete or not presents is an obvious dilemma that can only be resolved through research and investigation.

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 should 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. To summarize, the visibility of information – its completeness and the likelihood that it will be found – represents one of transparency’s two necessary conditions.

3.3. Inferability: The degree to which information is disaggregated, verified and simplified

Transparency’s other necessary condition is the degree to which information is inferable; the extent to which the information at hand can be used to draw accurate inference – both about visible information and information we do not know. 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. As alluded to in the previous section, we propose that three attributes increase the inferability of data: disaggregation, verifiability, and simplification.
Disaggregated or raw data is information that is, to the extent possible, unadulterated and close-to-the source, in its most granular form. Raw data is sometimes transmitted directly, from a measuring device to final consumer – such as in the case of temperature readings. But the mediation of information typically implies a decision-making process, either technical or political. Raw data on city pollution may be mediated by scientists or political appointees.

Because raw data is usually less mediated, it typically reflects fewer opportunities for officials to ‘cook’ or ‘game’ it out of professional or political motivations. If it is legal opinions we seek, original decisions should be provided. If it is public spending, then raw, disaggregated numbers will provide a greater degree of inferability than highly aggregated totals alone.

Raw data is also easier to ‘re-use’ than aggregated data, making it possible for open-data specialists and advocates to verify and simplify information, by cross-referencing it or creating visualizations that can be presented to a wider audience. When information is furnished in ‘closed’ formats that cannot be processed by computers (e.g. hard copies or images), the possibilities of reusing, analyzing, and combining data with other sources are reduced [33].

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. Errors in data-entry and gaps in the data also diminish the inferability of results.

A second attribute that increases the inferability of information is verification. Verified data is information that has been vetted by a third party. A private laboratory may add a further degree of mediation to information on pollution through third-party verification. As with disaggregated information, not all verified data is trustworthy. Securities rating agencies such as Standard and Poor’s and Moody’s poorly verified financial securities prior to the U.S. economic crisis of 2008.

A third characteristic that may help increase the inferability of information is simplification, which renders information more ‘understandable’ (inferable). Simplifying heuristics make information more accessible. Raw data on pollution, for example, could be mediated by assigning it scores or labeling devices that make it easier to understand for the layman. Simplification, however, will obviously be relative to the needs and capacities of information producers and their intended consumers.

As previously discussed, transparency should be appropriate for the intended audience. Christopher Hood has differentiated between indirect transparency – transparency understood by experts – and direct transparency, which reaches the wider public [14]. Expecting information to speak to every audience is ideal, but may simply create less transparency by privileging generalizability at the cost of accuracy.

All three attributes that increase the inferability of information – disaggregation, verification, and simplification – possess contingencies. Information can be manipulated before, during or after the process of disaggregation, verification or simplification. For this reason, when we gauge the quality of inferability, we must take into account how information is mediated and, most importantly, what incentives motivate the information supplier(s). In this sense, it is also important to consider the capacity of all parties that mediate information, including producers (e.g. governments) and final consumers (e.g. citizens). The relationship between informational capacity and transparency represents a topic for additional research.

To summarize, this section has proposed that in order for information to be considered transparent, it must to some extent be visible – complete and findable – and inferable, incorporating some element(s) of disaggregation, verification or simplification. It should be noted that while visibility’s attributes (completeness and ‘findability’) are both necessary, inferability’s attributes (disaggregation, verification, and simplification) are substitutable and adaptable to the intended audience.

Finally, just because we can identify transparency by analyzing its constituent parameters does not mean that the information is accurate. It is always important to analyze how information is mediated, and the incentives that drive suppliers of information.
4. 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 transparency, which depends on two necessary and jointly sufficient conditions: the visibility of information, and its inferability – the ability to draw accurate conclusions from it.

These represent the literal and figurative meanings of the word ‘transparency’, and it is worth noting that the conceptualization of ‘transparency’ over time has slowly moved from the literal to incorporate the figurative in a more explicit manner. Visibility initially represented the primary focus of professionals, public administrators, scholars and advocates. With the growing realization that “all that is visible is not verifiable or even intelligible” and increasing demands from open-data advocates, transparency’s figurative meaning has come to the fore – inferability.

In the sense that information should be verified to be inferable, we are asserting that information frequently masquerades as transparency, false transparency, so to speak. The trend toward false transparency appears to be gaining momentum in an age of information inflation and public relations spin. Many authoritarian governments have already anticipated the movement toward openness and may be playing the ‘transparency’ card. Russia and China, for example, have both enacted freedom of information measures, and further research might look at the extent to which these countries are meeting the parameters of transparency set out in this paper, or whether they are simply trying to keep up appearances [56,57]. Making out the dividing line between false transparency and poor quality transparency is, admittedly, a difficult task. However, the parameters presented in this paper allow for identifying transparency and even distinguishing among varying degrees of transparency. Future research might examine more specific operationalizations, benchmarks and indicators for assessing transparency’s two dimensions, 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 transparency. As illustrated in our brief review of ‘transparency’ evolution as a concept, we noted that strong demands have tended to increase the visibility of information but they have not always had the effect of ensuring its inferability. Inferability is in many ways at the mercy of suppliers, who must be compelled to release quality information through carrots and sticks.

A final research agenda might examine the incentives behind transparency agendas. Transparency, for instance, improves the ability of central planners to monitor and influence local governance, which can help ensure greater political stability by limiting corruption [56]. In this sense, transparency can help sustain authoritarian governments, as it has ostensibly accomplished in the case of Singapore [36].

Scholars might also look at whether international initiatives, such as the U.S. and U.K.-sponsored Open Government Partnership and the Extractive Industries Transparency Initiative represent a backdoor strategy for democracy-promotion and opening markets. While ‘glasnost’ contributed to the fall of the Soviet Union, transparency may help to bring down autocrats or even “break open the BRIC” by highlighting incongruencies in governance. In sum, much research remains to be done on both content and process.

Our contribution is to simply provide a means of identifying what is and what is not transparency. While identifying transparency can be a valuable first step towards measurement, perhaps its greatest value resides in its ability to unmask ‘sham’ transparency in an age of unbridled opening.

References