The many ways to Transparency: A typology of topics and varieties in the transparency literature

Roberto Cruz Romero[1]

Universidad de Leipzig

Alemania

ORCID: 0000-0001-5740-7037

ABSTRACT: This article explores a sample of the literature on transparency in the 1984-2020 period through a systematic review. The sample consists of 242 works (articles, books, and book chapters) collected from different academic databases. Latent dirichlet allocation (LDA) probabilistic topic modelling – an unsupervised machine learning approach – is employed in order to classify and construct a typology of topics within the literature. This approach is complemented by a structured overview of the varieties of transparency framework and is aimed at addressing three research questions: a) What analytical approaches are identified in the literature? b) How is transparency conceptualised through such analytical approaches? And, c) where has transparency's focus been placed in relation to an event-process framework? The findings show unequal methodological approaches, topics, and issues investigated. These insights and the novel approach utilised outline key challenges and opportunities for future transparency research.

KEYWORDS: transparency, accountability, public administration, governance, systematic review.

---

[1] Doctorando en la Escuela de Posgrado de Estudios Globales y de Área (GSGAS) de la Universidad de Leipzig. También se desempeña como investigador en el Centro Alemán de Enseñanza Superior e Investigación Científica (DZHW) en Berlín. Tiene formación de grado en Ciencias Políticas por la Universidad de Costa Rica, así como un máster en Políticas Públicas y Buena Gobernanza por la Universidad Leuphana en Lüneburg. Sus intereses de investigación abarcan las ciencias sociales, centrándose en el desarrollo institucional, la gobernanza democrática y los análisis comparativos. Tiene una amplia experiencia en consultoría y evaluación de políticas, habiendo trabajado con diferentes instituciones nacionales e internacionales en Costa Rica y Alemania.

Los muchos caminos hacia la transparencia: Una tipología de temas y variedades en la literatura sobre transparencia

RESUMEN: Este artículo explora una muestra de la literatura sobre transparencia en el periodo 1984-2020 a través de una revisión sistemática. La muestra consta de 242 trabajos (artículos, libros y capítulos de libros) recogidos de diferentes bases de datos académicas. Para clasificar y construir una tipología de temas, se emplea un modelo probabilístico de temas, Asignación Latente de Dirichlet (ALD), un enfoque de aprendizaje automático no supervisado. Este enfoque se complementa con las variedades de transparencia y tiene por objeto responder a tres preguntas de investigación: a) ¿Qué enfoques analíticos se identifican en la bibliografía? b) ¿Cómo se conceptualiza la transparencia a través de dichos enfoques? Y, c) ¿dónde se ha situado el enfoque de la transparencia en relación con una distinción acontecimiento-proceso? Los hallazgos muestran enfoques metodológicos y temáticas desiguales. Estas conclusiones y el novedoso enfoque utilizado plantean retos y oportunidades para futuras investigaciones sobre transparencia.

PALABRAS CLAVE: transparencia, rendición de cuentas, administración pública, gobernanza, revisión sistemática.

CONTENIDOS: 1.- Introducción. 2.- Marco metodológico. *2.1.- Evaluación y admisibilidad. 2.2.- Estructura de codificación.* 3.- Resultados principales. *3.1.- Características metodológicas y conceptuales. 3.2.- Una perspectiva de la transparencia desde el punto de vista del proceso de los acontecimientos. 3.3.- Transparencia delimitada geográficamente.* 4.- Discusión. 5.- Conclusión. - Bibliografía.

Publicity is justly commended as a remedy for social and industrial diseases. Sunlight is said to be the best of disinfectants; electric light the most efficient policeman.

Louis D. Brandeis

in Other People's Money, and How the Bankers Use It, Chapter V: What can Publicity Do, 1914.

1.- Introduction

The words of Associate Justice Brandeis still resonate to this day. Over a hundred years since his discussion on financial regulation in the United States (USA) the phrase carries an ever-lasting weight on not only the role of supervision and regulatory frameworks but, more importantly, on the general importance of openness and transparency. The phrase remains one of the founding statements of transparency-led initiatives seeking to shed light onto the workings of public administrations (Saxena and Muhammad, 2018, Monteduro and Allegrini, 2020). However, little attention has being given to the grounding dynamics of what transparency means (Heald, 2006a, Fox, 2007, Ball, 2009), and its implications for analysing and assessing its origins, mechanisms, and impacts.

As a red thread running to the vast majority of the literature, transparency has been linked to its corruption-curbing potential and the pathways it offers through institutional and legal designs. Again, this focus has been set without a clear epistemological intention and hence circumvents the properties of conceptual precision. Chen and Ganapati (2021) present a meta-analysis on the corruption-curbing mechanisms of different types of transparency settings with mixed results and, crucially, dependent on a specific but changing analytical framework of transparency. This plays into the critical reading of transparency as an empty signifier (Alloa and Thomä, 2018a, Birchall, 2021), a non-concept only identifiable through its negative denotation.

Against this backdrop, during the past thirty years, a steady and consistent growth has occurred within the field of transparency research. This growth signals a much more dedicated emphasis to the concept and its policy implications, as it also has come accompanied by a diverse academic landscape and plenty methodological possibilities for the subject. From an instrumental condition (Heald, 2006a), a trust enabling mechanism (Grimmelikhuijsen, 2012), or a policy-making instance (Meijer et al., 2018), the literature has offered a multitude of theoretical and empirical correlations to good governance, public administrations, and other fields.

Many of the works still being discussed as highly influential within the literature (Hood and Heald, 2006, Piotrowski, 2012, Meijer, 2014)[2] remain shy in their positioning regarding the true potential of transparency, rather highlighting its implied limitations and the damages it may cause under certain conditions (Cucciniello et al., 2017), crucially in their relation to democracy-enhancing properties based on trust (Schmidthuber et al., 2021, Wang and Guan, 2022). Cucciniello et al. (Cucciniello et al., 2017) focus on a broad set of characteristics of a similar set of transparency literature, coming to a general conclusion of context-dependence regarding the expected outcomes of policies and implementations.

In this article I explore and argue for transparency's role linking democratic governance elements more dynamically, through a broader spectrum of thematic dimensions characterising transparency (and their analytical interplay) found within the literature. Also, I argue for transparency's potential in shaping the understanding of governance structures seeking to become more open, participatory, and resilient.

Attending to these objectives, I set out to assess a sample of the scholarship that has been published for the last thirty years (1984-2020) in the different fields that discuss and problematise transparency, whether theoretically or empirically. This variety of sources and methodological frameworks serves as a starting point to argue in favour of transparency's transdisciplinary relevance. Thus, this article's *first main focus* is to identify these intersections and frame the thematic, methodological, or publication patterns that appear in the scholarship, and give a more detailed inspection of the research foci, methods, and approaches. Minding the disciplinary differences, thematic coincidences can then be further highlighted and explored.

The *second main focus* of this article is informed by the analytical framework that stems from the "varieties of transparency" classification offered by Heald (Heald, 2006b, pp. 29–32), in which he distinguishes between event and process types of transparency. This categorical approach will help structure the analysis of the literature, and thus guide a more consistent discussion. Approaching the literature collected through this typology facilitates the capacity to harmonise the distinct approaches and themes in the corpus, in that it helps to place the focus in one particular area of policy and governance at a time. Crucially, for systematic reasons, it provides a further comparative category which, as it will be shown, enables informative and ordered insights. Although explained later, I expand on Heald's approach and indicate what happens (events or processes) and where it happens.

---

[2] See, for example, the visual exploration tool Connected Papers (https://www.connectedpapers.com/) where through specific topic, author or paper title searches, a user is able to obtain an influence graph, as well as tabular information on the different works influencing or deriving from the searched work.

Thus, the research complements and builds upon relevant works in the field of transparency (Bannister and Connolly, 2011, Meijer, 2014), highlighting underlying trends and thematic coincidences and clustering these accordingly. This is both methodologically and analytically relevant, as it evidences more clearly the state of the art and the approaches taken more commonly. In addition, and expanding on a critical approach to knowledge production and diffusion, I take a specific methodological stance and look into a wider variety of academic sources other than the Anglo-centric Western institutions. The justification is twofold: to incentivise a broader debate, moving past the usual patterns of academic production, and highlighting the different foci and approaches that characterise transparency research outside the so-called Global North point of view. Nonetheless, the analysis is based on English-language literature, highlighting a latent tension between sources and outputs; the same tension that characterises the inclusion and participation in the international academic discourse. Many of the works reviewed come from institutions outside the so-called Global North, yet, due to convenience in language processing English was used to (loosely) discriminate the included works (more on this below).

Therefore, the article is motivated by three specific research questions:

• What analytical approaches (methods, frameworks) are identified in the literature?

• How is transparency conceptualised through such approaches?

• Where has the event-process framework been placed in relation to these analytical approaches?

The sequence of these questions speaks of the interest regarding the precision in the conceptualisation of transparency, its contextual embeddedness, and its subsequent analytical characteristics. By identifying and understanding how and where transparency has been studied, the research can narrow down on the common and uncommon elements therein. *The third and final focus* of this article is concerned with methodological matters, in that it seeks to widen the scope for mixed approaches. As it will be shown, supported by unsupervised machine learning processes, the systematic literature review carried out not only helps refine the search for the works included in it, but also the topics and main features explored within them.

For this systematic meta-review, I collected a sample of 242 works. These were published in the period 1984-2020, covering a thirty-six-year time span. From this data, I show how differing tendencies appear to dominate the academic output in the field of transparency, with varying methodological approaches and research foci consistently changing over time. There is no clear articulation of a single definition of

transparency, but many thematic implementations of theoretical and empirical frameworks.

2.- Methodological Approach

Building upon a previous, similar exercise (Cucciniello et al., 2017), this systematic review seeks to expand the understanding in the field of transparency about the subject itself, as well as the object(s) analysed through it. Structuring the approach, I follow the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Statement (PRISMA – see figure 1) (Liberati et al., 2009) and attempt to show the potential for the social sciences, through the overall results, and policy and scientific recommendations deriving from it. The goal then is "to be both robust and reproducible to ensure the minimization of bias" (Rethlefsen et al., 2021: 1), and to permit a growing body of work to be openly debated. All this, whilst evidencing and highlighting the analytical diversity surrounding the concept.

As shown by the flow diagram in figure 1, in order to come to the final number of 242 works (articles, books, and book chapters) I made use of the fulltext package in the R programming framework (Chamberlain, 2021). With this approach a repeated number of Application Programming Interface (API) queries were able to be automated and reiterated in intervals, connecting directly with repositories through the R interface. The fulltext package has built-in capabilities to query a number of academic databases, amongst which the most relevant for this systemic review were considered to be Crossref and the Public Library of Science (PLOS ONE).[3] These databases host a number of important and varied publications that also are strong in the social sciences field, which are the focal point of this review. In addition, the database of the Web of Science (WoS)[4] was also accessed through the organisation's website; because of the ease of access, the use of any other algorithmic approach was not needed.

---

[3] PLOS ONE is one of the largest open access journals, and it publishes a variety of disciplinary topics in a rolling basis, thus publishing thousands of articles a year. Crossref is based on Digital Object Identifier (DOI) interlinking and metadata collection. Crossref has information on a greater variety of works and provides bibliographic information and links to the published material. The fulltext package builds upon functions from the rcrossref package and takes an authentication route, hence, an API key is needed.

[4] WoS is a database archiving a large number of publications' bibliographic information going back several decades. It is publisher-independent, thus including a vast number of research citation data, accessible in many dynamic ways and easily downloadable.

Figure 1.
PRISMA Workflow
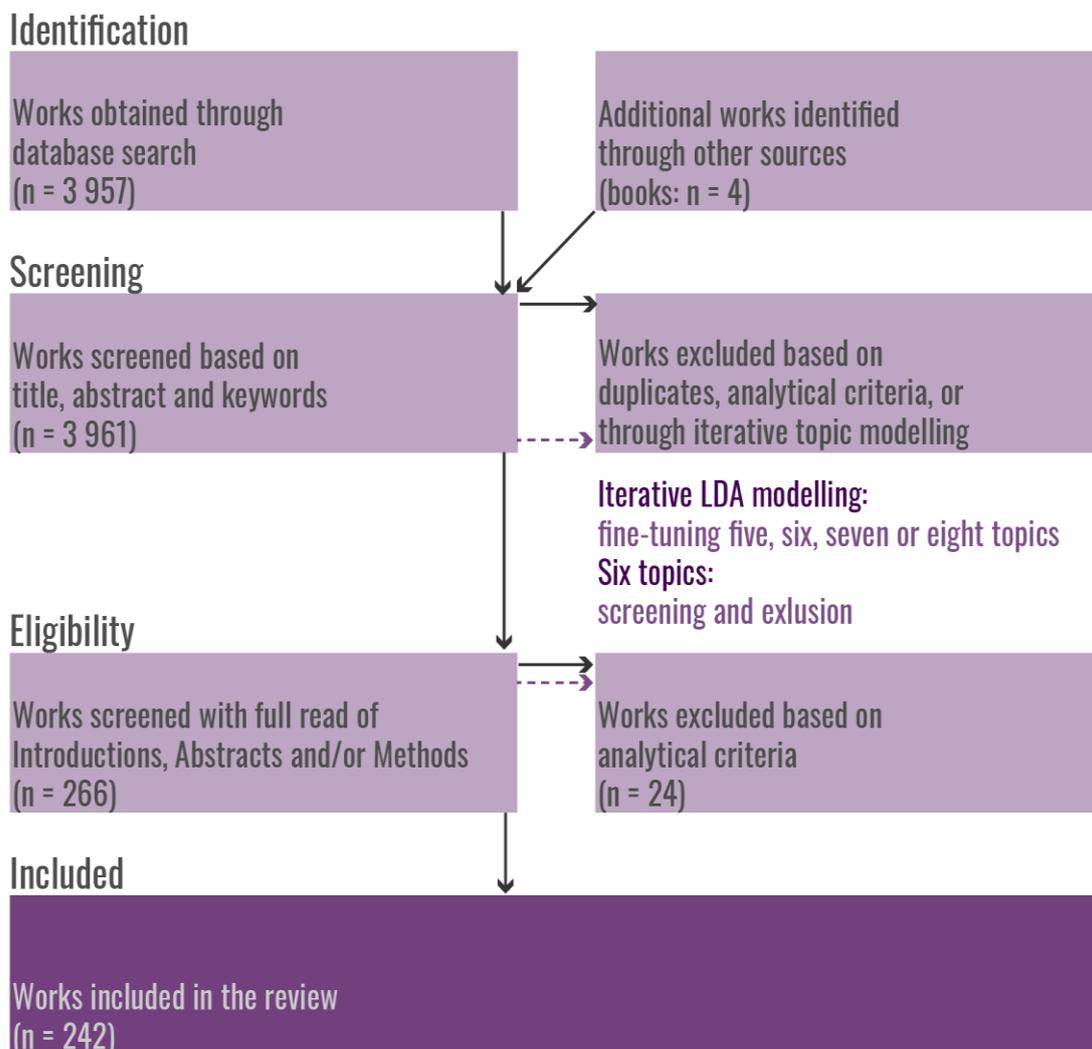
Source: author's own work, based on Liberati et al. (2009).

The queries were carried out in incremental steps, in order to further refine each set of results – the same procedure was followed in the R calls as in the WoS calls. The queries were set to match a set of terms to titles and abstracts. For example, since transparency has conceptual implications in fields beyond political science and public administration studies (Alloa and Thomä, 2018b), each round of queries included one or more set of terms to narrow down the set of matches. The search terms include a variety of concepts that delimit the breadth of the overall results. This leads the final sample to be skewed in favour of more proximity to these. So, the terms included in the final query were: *transparency, accountability, government,*

corruption, open, democracy, power, society, civil, management, administration, policy, international, local, state, public, service, trust.[5]

Yet, the centrality of each these terms covers a range of fields well distributed within the social sciences and some other interdisciplinary areas (from sociology, business, communication, and even the humanities). The intention is then to focus on works close to the public administration studies and political sciences, in order to have a broader common ground with other such systematic reviews (Cucciniello et al., 2017, Tai, 2021), so as to comparatively observe distances and similarities in the insights obtained. Moreover, since transparency carries an important policy loading (Argyrous, 2012), by covering the fields more closely related to policy and politics, coverage limitations can be offset.

Additionally, based on the review of some foundational material for this article (e.g., Heald, 2006a, Meijer, 2014), and the cross-examining of the respective results, four books were included in the sample for their relevance and centrality in the scholarship.

2.1.- Screening and Eligibility

The process of collecting and systematising the final sample of works (n = 242) was an iterative process, informed by the literature, as well as the preliminary coding of the influential works identified. The flow diagram shown in Figure 1 also depicts the use of a machine learning approach, based on a topic modelling algorithm. The Latent Dirichlet Allocation (LDA) model used for this goal is a probabilistic method of generating document and topic classifications within the text corpora provided (Blei et al., 2003), and it served as a clustering method during the screening and coding phases. LDA is implemented in the *topicmodels* package in R (Grün and Hornik, 2011).

As shown in Figure 1, the final number of topics (k) was set at 6; the process was initiated with five topics, iteratively comparing the results with a six-, seven-, and eight-topic configuration. Yet, due to general composition of the clusters, a six-topic classification was chosen. Following, a term-matching approach was used to reduce the sample screening out the least connected works. This was done by matching the terms contained in the titles and abstracts from each work to those clustered by the

---

[5] Admittedly, the composition of the final sample of works depends on the inclusion or exclusion of any of the previous terms, thus rendering it sensible to one or another focal area of transparency. In this case, the decision to include the terms mentioned has to do with both a revision of the main aspects in the literature, as well as the frequency count of common terms associated with "accountability", "government", "corruption", and "administration", stemming from the full text pre-processing of the data. There was a total of five rounds of queries, after which all results were collected and joined together into one file. The searches were carried out between the days 3rd and 11th of May, 2021 since the querying capability of the fulltext package is limited by each repository's API restrictions, usually on weekly basis (particularly so regarding the Crossref queries – see further documentation on Chamberlain (2021)).

LDA as exclusive for each topic (see Figure 5). Thus, only those works most commonly matching these key terms in their titles and abstracts were kept for the next round of analysis.[6]

In addition, by knowing that the identified initial sample is already highly related to elements of governance (see the list of query terms), and by filtering works based on the exclusive terms that make up the six topics, it is expected that works with outlying themes (those in physics, arts, or chemistry, for example) remain unmatched and thus get filtered out. This creates, nonetheless, a sort of endogenous bias, as the filtering depends greatly on the initial six topics identified and their respective exclusive terms.

2.2.- Coding Structure

Following the screening and eligibility stages, additional criteria respond to the main driving foci of the article – that is, from theoretical and empirical lenses, as well as from a methodological outlook. Hence, I take the following as the main analytical criteria to code the final sample:

Field of Study: Transparency by itself is a very broad term, encompassing fields of knowledge that range from philosophy, natural and applied sciences to economy, political theory, and democratic studies. As argued, by focusing on a set of terms with a public administration-political science leaning, this article considers only the second grouping and acknowledges the interdisciplinary possibilities therein. As per the list of query terms, the search criteria elucidate the centrality of administrative, social, and political meanings of transparency. Yet, in the final sample there are works belonging to areas of computer science, information technologies, sustainability, among others. So, despite this apparent limitation, the sample still possesses some thematic and field-of-study variance, adding heterogeneity to the analysis, as well as expanding on (Cucciniello et al., 2017, Tai, 2021). Notedly, topics like open data, open governance, freedom of information, or even postcolonialism are included in the thematic areas of the works analysed. This proves enriching and enlightening of the way many disciplines and methodologies coalesce, underlining the relevance and transversality of transparency. The information was coded manually based on either 1) the self-descriptors given (keywords), 2) the journals' main thematic orientation, or 3) an explicit mention in title or abstract.

Methodological Design: Building on the previous point, I systematically subdivide the works between empirically-oriented and theoretically-driven ones. Underlining

---

[6] The abstract text provides sufficient information on content, methods, and results in order to be linked to the thematic and structural dimensions of a work. Full text LDA was carried out only on the final sample (242).

this distinction is the multidisciplinary approach and the field complementarity it entails. Generally, theoretical papers were identified by their model-building, concept, or methodological definition approaches. Whereas empirical papers were selected based on their (mostly quantitative) approach and application of methodological frameworks. A further subdivision of the categories is detailed in Table 1.

Language: Although English appears to be overwhelmingly the dominant language in academic production, no previous filter was applied to the queries. As most works offer a default English description (title, abstract, and keywords), the inclusion of other languages was only detected and accounted for during the screening phases. Thus, I controlled for works written in languages I could personally read and translate; namely, English as the main language in the sample, with Spanish as second, and German in one work. For the non-English works, I ran the main body of text through the DeepL[7] translation platform, later controlling for grammatical correctness and text completeness. Since the proportion of works needing this step was not considerable, it was a manual task involving great attention to detail. Hence, control of the translated texts was carried out directly after obtaining the translated output. Consequently, this task was prerequisite to the later stages of analysis, where full texts (in English) where input into the LDA model, as well as for detailed reading of Introduction, Methods, and/or Results sections. Since the LDA algorithm is structural and not semantic, consistency throughout was key and therefore necessary to have a singular language dimension.

Publication Year: Figure 2 presents a visual representation of the evolution of the literature within this sample of works. I intended, nonetheless, to go farther back as possible within the methodological constrains and dispositions mentioned above. Works that mention transparency and/or accountability explicitly are included, thus having a focus on government or administrative functioning. A period of 36 years represents the sample in this analysis, with 1984 as t_1 and 2020 as t_{36} – yet there is incompleteness in some individual year periods (e.g., 1990, $n = 0$). The 1984 work (Goldring, 1984) is the first record in the series given that the matching through topics in the available databases created a cut-off at this point, signalling this work as the earliest document fitting the query terms.

Publication Type: As mentioned, the sample of works in this analysis includes predominantly articles; book chapters and books, however, make up the remaining proportion of the sample. As for the latter two types, relevance and convenience were the driving criteria for their inclusion, whereas for the former, only articles in

---

[7] Available   as   a   desktop   application,   I   used   the   online   version   in https://www.deepl.com/translator

indexed journals were selected. In addition to the peer-reviewing process such journals commonly entail, indexed publications also provide a Digital Object Identifier (DOI) code, which makes the work easily traceable.

Geographic Representation: Not necessarily an eligibility criterion, but a coding element, this characteristic represents the analytical interest in knowledge production. This category emphasizes the region(s) studied in the works analysed, and the methodological light under which the cases are studied.

Figure 2

Yearly Evolution of Transparency Research (1984-2020)
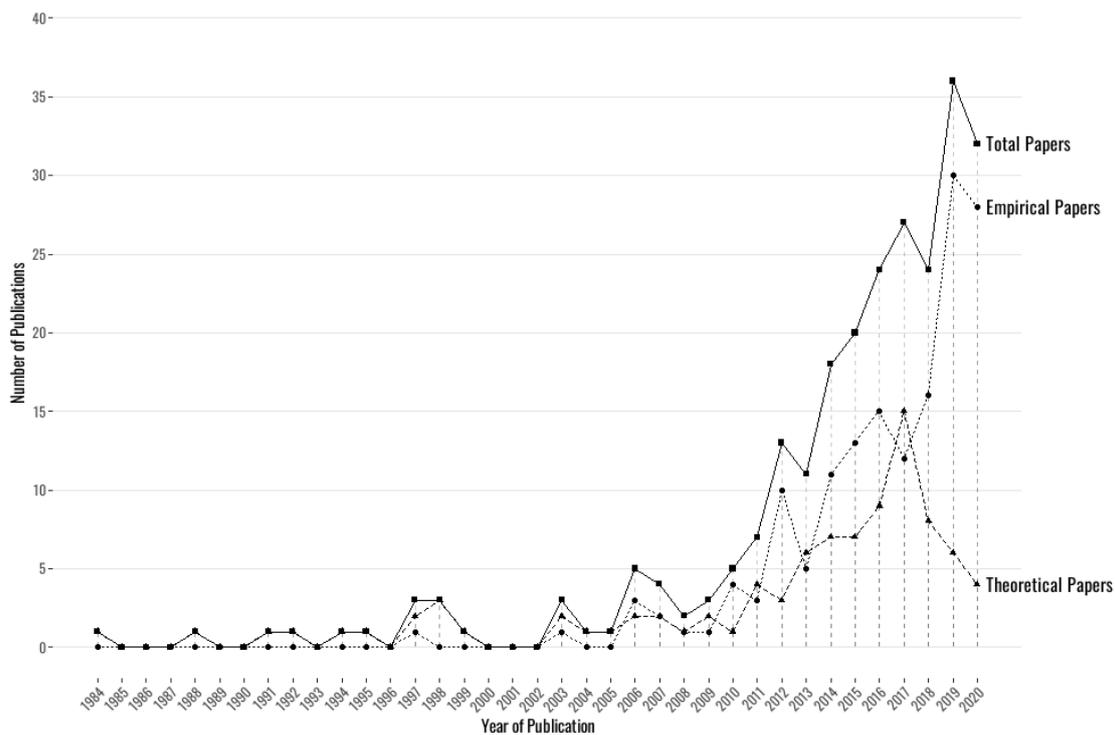
Source: author's own work.

As mentioned, my analytical approach is informed by Heald's (2003, 2006b) typology of transparency according to its area of influence. I expand on Heald's scheme, however, and point out a subdivision of the event and process orientations of transparency. Heald's contribution reflects the view of public administration and

policy dynamics in that it focuses on analytical precision.[8] I additionally take motivation on Cucciniello and Nasi (2014), as well as Cucciniello et al.'s (2017) outlooks, in that the scholars subdivide transparency into object-specific and activity-specific, respectively. Thus, I look into the respective characterisation of transparency – either as event or as process – as well as transparency's institutional placement. This is systematised by answering the key question: where does transparency take place?

In addition to Heald's *event – process* classification, the spatial condition of the works allows for a more detailed overview of the scope and breadth of transparency research. Considering the event typology, my coding structure included classifications for what was the main event, and where did the event take place. Conversely, for the process category, I underscore the main process (in this case, what was the process about), and where does the process occur. Put differently, my classification questions the spatiality and organisation of transparency, who enacts it, and through which entities.

Coding was carried out through an abductive outlook (Timmermans and Tavory, 2012), in which basic bibliographic information is expanded upon detailed reading and expansion of key themes found in and running through the literature. Conceptually, this reflects a theoretically driven pattern of recognising and evaluating issues and topics, whilst, in practical terms, it refers to a recursive exercise in getting acquainted and familiar with the elements of interest in each work.

---

[8] Events, says Heald, are easier to systematise and identify than processes, due to the differences in expected results. Events represent tangible outputs or outcomes (the latter being less clear) in the forms of regulations, plans, or even laws. Processes are thus blurry to identify as they occur, and so are the actors involved, given the temporal and material imprecision of their occurrence, such as dialogues or participatory forums.

Table 1

Coding Criteria

| Criterion	Remarks
Author, Year, Title, Keywords, Publication	Primary bibliographic information to be accounted for every work.
Field of Study	Secondary bibliographic information characterising the multi- and interdisciplinary approaches to the study of transparency.
Methodological Design	Differentiation between theoretical and empirical studies. The core factor distinguishing both categories is the generation or application of a concept, model, or methodology – the former category generates these, while the latter category applies them.
Typology of Transparency	Heald (Heald, 2003, 2006b) proposed an *event – process* differentiation for understanding transparency. I expand this approach by developing to further sub-categories, respectively. For the event-type transparency the sub-categories answer the questions: • *What* event occurred? • *Where* did the event occur? For the process-type transparency the questions are: • *What* was the process about? • *Where* did the process occur? The question words match for each type of transparency, yet the focus varies accordingly. In the case of events, one is primarily interested in knowing the details of what transpired; for as the primary interest in understanding the process is identifying the parties taking part.
Geographic Representation	This criterion allows for a sub-categorisation of transparency research into spatial units (countries or regions). Consequently, this approach permits a closer look at how transparency is studied or if transparency is taken at face value irrespective of the context applied to.

Source: author's own work.

3.- Main Findings

The systematic review was carried out on sample of 242 works (4 books, 1 book chapter, and 237 peer-reviewed journal articles). The latter were published in 155 different journals, where public administration and governance are the most common. However, the diversity of thematic publications can be seen in the complete list of journals (see Appendix), as well as in the thematic areas covering the topic of transparency (see Figure 3). As mentioned, the study of this concept covers areas of interdisciplinary overlapping that is sometimes evident in the methods, framing, or general approach. My exploration of the texts through the lens of multidisciplinary frameworks allowed me to categorise the main areas or fields of study represented in each work.

Figure 3
**Field of Study in Transparency Literature**
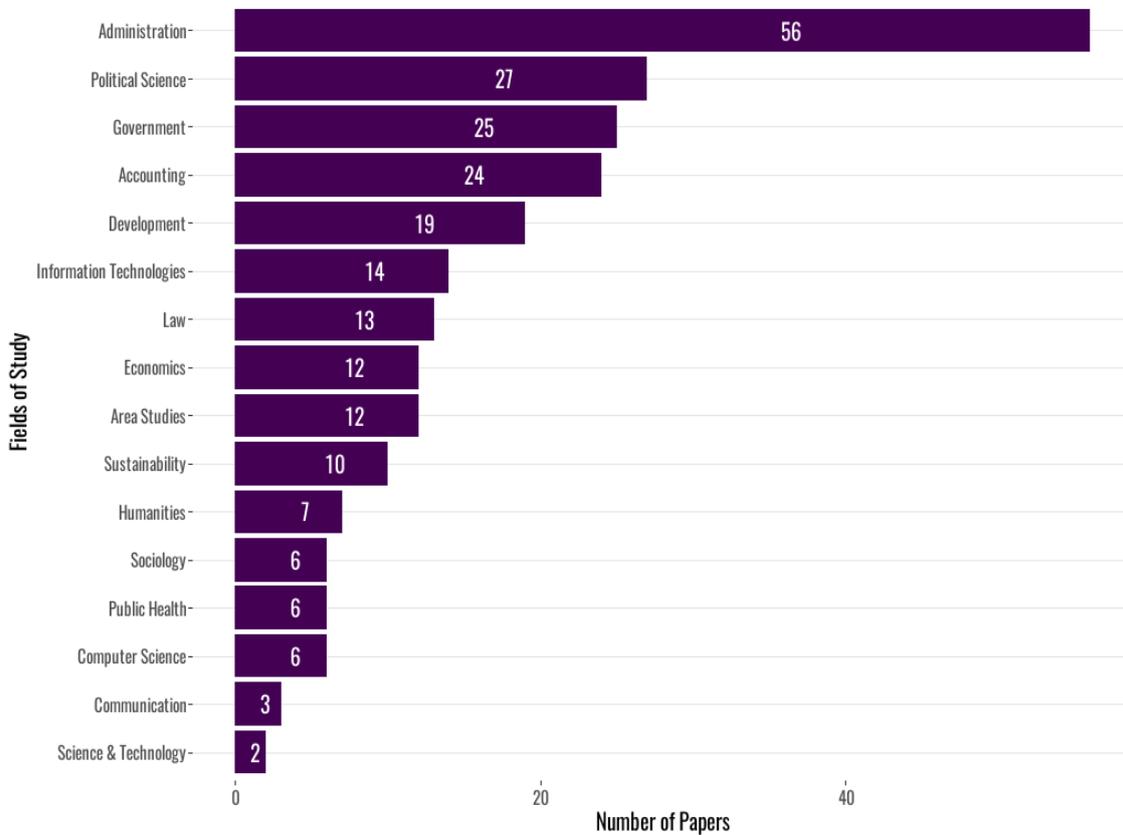
Source: author's own work.

3.1.- Methodological and Conceptual Characteristics

One my main focus in this article is to apply and argue in favour of a novel (at least in the social sciences) approach to systematic literature studies, looking beyond a strictly researcher-driven input. The unsupervised machine learning approach used here complements the critical findings the researcher(s) and/or coder(s) may uncover. Yet, it can also help guide the inquiry and shed light into subtler trends within the texts themselves. In this line, what the LDA model does is to look for the most probable distribution of terms per topic; clustering and thus signalling some structural connection. Figure 4 shows an initial output of this process known as the "per-topic-per-word" probability (Silge and Robinson, 2017). Although this classification does not imply semantic or epistemic proximity, the structure of text itself leads to a thematic representation of more or less defined areas.

Figure 4
LDA Term Classification Probabilities per Topic
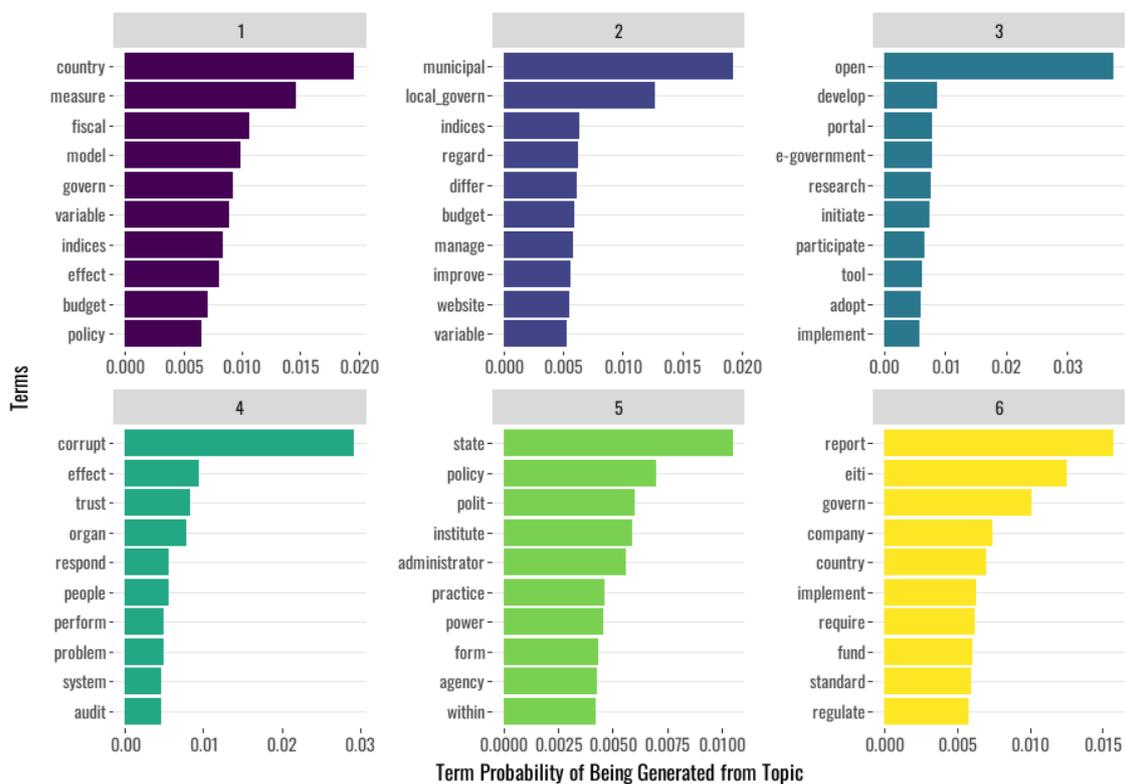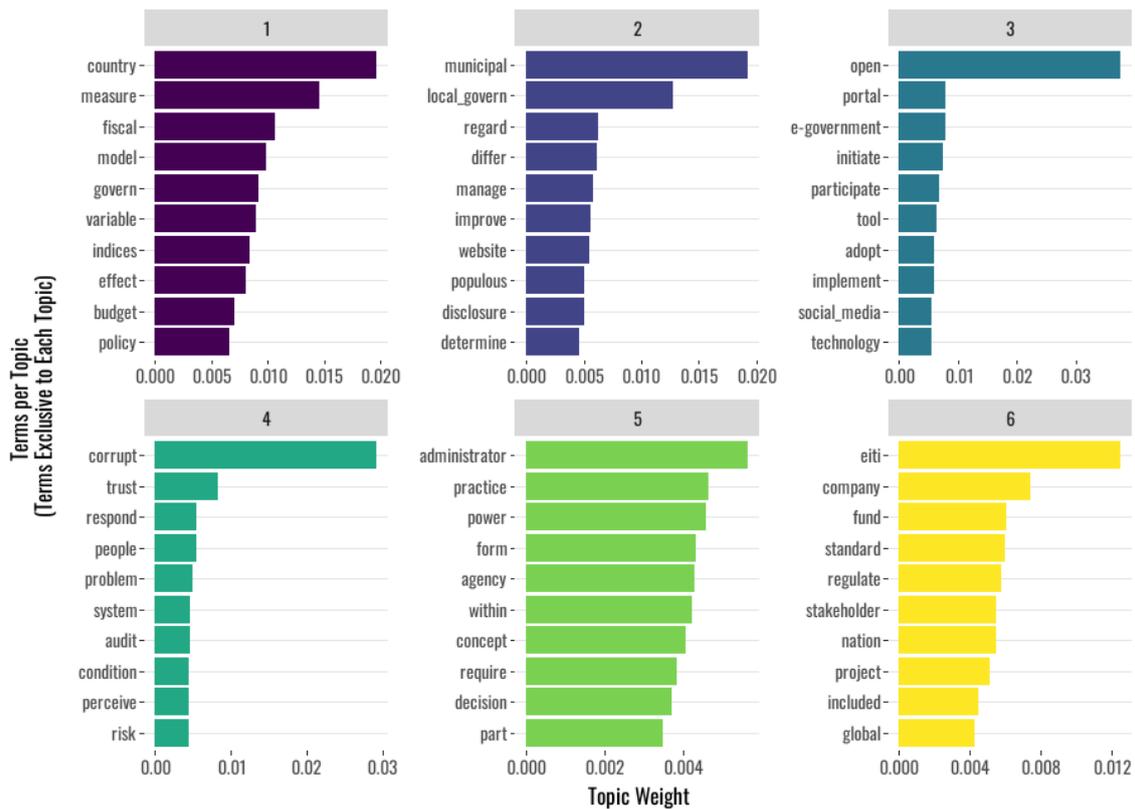

Source: author's own work.

Additionally, in Figure 5 I show a follow-up clustering in which the terms' weight on each topic's configuration is defined; that is only those terms exclusively classified into each of the topics. As introduced, the six-topic distribution allows for a sufficient enough variation of terms without creating too many or too small topics (see Figure 6). Hence, the terms' contribution to each topic descends as more specialised terms appear (see Blei et al., 2003, Grün and Hornik, 2011); the first terms usually carry the most weight since they seem to be structurally linked the most to the other terms making up each topic.

The LDA model, however, does not offer any automatic classification labels – it simply groups works according to their text structure similarity. It is the researcher's duty to inform and be informed by this classification – from establishing the best fitting number of topics (k = 6) to understanding the underlying relations that seem to link them. In doing the latter, the researcher takes a meta-analytic stance identifying the critical components of each category, contrasting them, and abductively building the thematic spaces for further analyses (Timmermans and Tavory, 2012). In my sample, and given the LDA clustering, I focused on the distributions and the singular contributions of the terms and topics to identify patterns related to specific elements within the transparency and governance literature.

Figure 5
**LDA Term Exclusivity Classification per Topic**

Source: author's own work.

Hence, upon closer inspection of the term clusters and their correlations, and considering some of the main scholarly works on institutional development, governance and corruption (Naurin, 2007, Lindstedt and Naurin, 2010, Williams, 2014, Erkkilä, 2020, Schmidthuber et al., 2021), I defined the working labels for each of the topics. Figure 6 presents this time a count distribution of the individual works that, due to the term-document composition, most strongly relate to the topic and the corresponding label. The sample is similarly distributed across the six topics, with a slight over-representation for the "Local Government" and "Institutions" topics, and an under-representation of the "Corruption" topic. This may occur due to a number of reasons, exogenous and endogenous to the review process. Since the collection and selection procedure was done iteratively and based on word-matching, it is expectable that such distribution derives from a similar composition within the initial large sample identified (n = 3 957).

Figure 6
LDA Topics Labelled
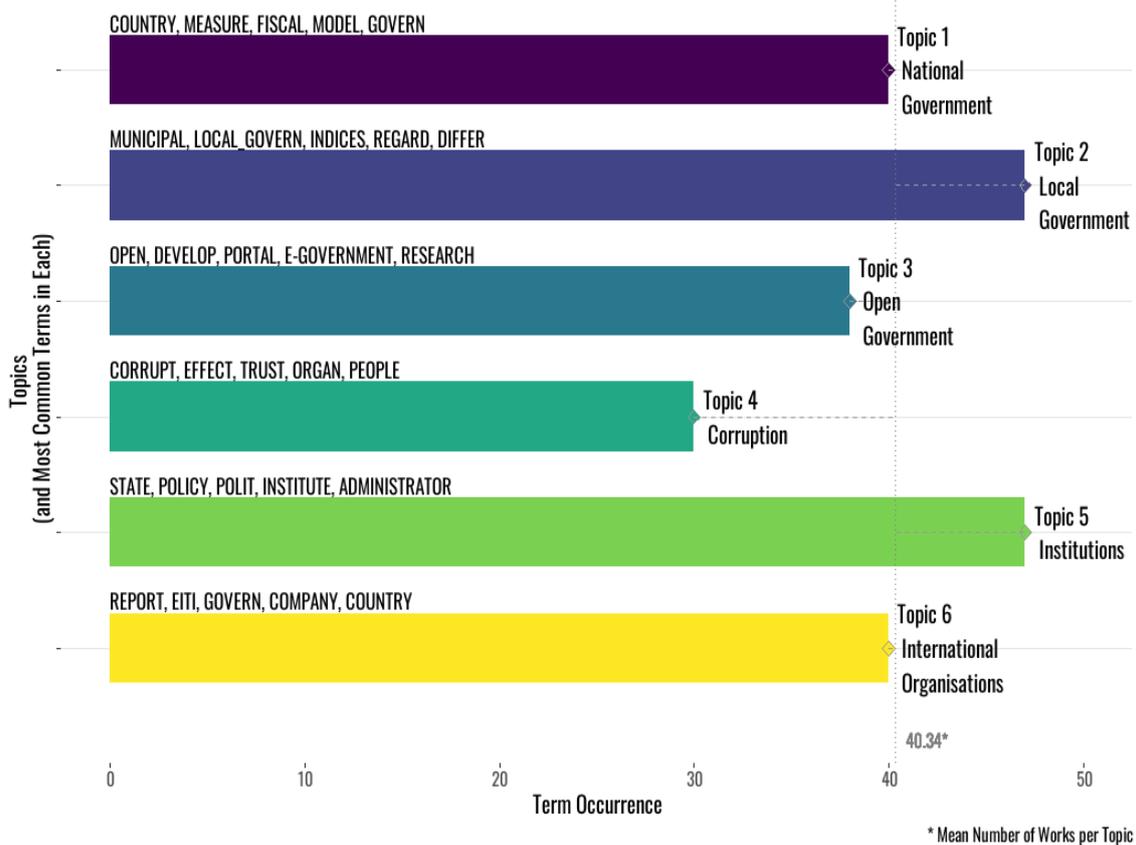
Source: author's own work.

Some works, however, do not belong exclusively to a single thematic categorisation; as mentioned, such classification represents a probability-based allocation of the works in the sample. LDA modelling supposes a balance between hyper-specification and over-generalisation, and at the intersecting points of these scenarios lie mixed interpretations of one or many works. For example, the distinction between the "Institutions" and "International Organisations" topics is arguably a muddy one. International organisations share indeed a host of organisational and structural characteristics that can be associated with institutional studies altogether. Yet, due to the consequential differences in objectives (see, for example (Andrades et al., 2019)) or political leverage (Vijge et al., 2019) it seems crucial to determine a distinct category between the two categories. In this sense, overlapping is a clear issue, especially considering the common terminology that is used when referring to elements within these areas (for example, (Chatwin et al., 2019)). That said, there are

works that thematically can be more easily framed in one or the other topics, highlighting at least a conceptual determinant of the typology.

Furthermore, the clear differentiation between the three types of government-related topics shows a coherent classification, taking into account the salient issues within each category. For example, the role of terms like "portal", "e-government", or "participation" evidence the leaning towards the broader "Open Government" theme. Similarly, terms such as "municipal" or "local" stress the thematic precision of the "Local Government" label. "Corruption", on the other hand, points towards the plausible overlapping of the issue onto every other topic since, understandably so, such has been the thesis put to test by much of the corruption literature (Mauro, 1995, Zhao et al., 2003, Ellis and Fender, 2006, Barassi and Zhou, 2012, Aghion et al., 2016). One of the overarching statements guiding the scholarship on transparency parts from the assumption that corruption is – or is potentially – present in all areas of public administration and that corruption is a consequence of reduced transparency.

An important thing to consider vis-a-vis such scholarly landscape (in the sample) is the temporal evolution of the thematic areas characterised here. The sample's first entry dates back to 1984 and, according to the reading and LDA clustering, it refers to the "Institutions" topic. This work by Goldring (1984), specifically, is titled *Public Law and Accountability of Government*, and problematises legal reform and information legislation. It discusses the legal details, and legislative and administrative minutiae of freedom of information acts (FOIA) – nowadays a well-known and widely implemented framework. The scholar's emphasis is set on the institutional implications and framework-shaping ramifications of legal reform. A long way has been walked ever since, methodologically and conceptually, and the variety of scopes and perspectives has grown ever since (see Figure 2), creating an exciting and diverse landscape for the study of transparency, as this review seeks to underline.

Figure 7, for example, shows another temporal representation of the works, in which the temporality and the topic distribution are shown. The former is the most obvious, as mimics the growth already displayed in Figure 2. The latter displays the yearly weight of each topic in relation to the total distribution of the sample, as well as its relative importance. The figure helps to clearly visualise and hammer down on the notion of growth and diversification of transparency studies, regardless of the main field of study or analytical framework employed. As a quick snapshot, the figure also shows the dynamic attention some topics have lost and (re-)gained over time, indicating a fluctuating interest in specific elements.

Figure 7
LDA Topics per Year
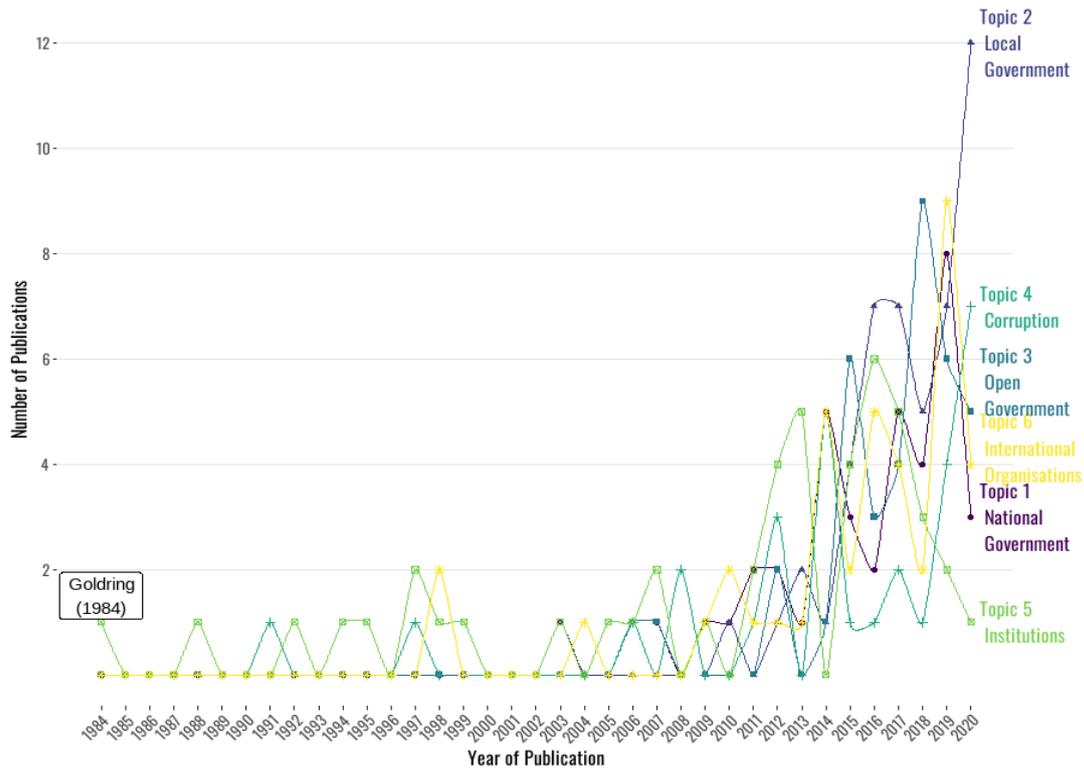
Source: author's own work.

Take the example of two contrasting topics – in their temporal composition, at least – "Local Government" and "Institutions". The latter, as mentioned before, is concerned mostly with organisational dynamics and systemic implications of legal and administrative changes; the former is a micro-level of applicability of these institutional minutiae. It is clear, however, that the local entails a more concrete outlook on finance, politics, and regulation (Transparency International and UN Habitat, 2004, Guillamón et al., 2011). The question that jumps to the eye hence is, what epistemic elements set both topics apart? Derived from the previous ideas, *institutional* perspectives are based on broader discussions of design and administration, whilst the *local governance* outlook is set on its proximity to civil society. But, more importantly, why has the scholarly output shifted from the broader discourse to the narrow application?

In order to respond, let me return to the plot contextualise the information shown. Two trends are evident at first sight: literature on institutions and transparency was common ground three decades ago. Democratisation waves, institutional

modernisation, or a more dynamic international order may have contributed to this shifting pattern. Challenges from new bureaucracies (Iwasaki and Suzuki, 2012) and/or demands from supranational bodies (Scharpf, 1998) may have driven the academic debate towards the look for best practices in public administration, in an effort to curb the effects of clientelism or generally corrupt activities. That is, formal discourses and discussions around probity and openness were progressively complemented and supplanted by issues of more practical connotations in the public administration. Again, the figure shows an almost clear cut regarding the temporal distribution of both topics. "Institutions" is the most probable topic for virtually all works prior to the year 2000, while "Local Government" agglomerates the topic probability for the last four years. Additionally, in line with previous ideas, "Corruption" seems to be a consistent topic within the literature sampled, despite its already discussed under-representation.

In this line, following the guiding questions for this review, I seek to analyse how the thematic distribution of transparency research relates to the "varieties of transparency"; understood as a framework with which to assess the institutional dimensions of transparency. To do so, I expand the typology framework introduced by Heald (2003, 2006b) and attempt to illustrate how does the research sampled for this review can be looked at from said perspective.

3.2.- An Event Process Perspective of Transparency

In this regard, Heald's categorisation is key for understanding the dimensions in which inputs, outputs and outcomes, and the processes in between, shape the research field and, with it, the very conception of transparency itself. I call back on the analytical questions presented in Table 1, which illustrate how the varieties typology can be expanded, as to identify the key elements that substantiate a detailed approach that refines what is seen and discussed about transparency, but also complements the notion of topics shown previously. Table 2 shows an intricate matrix describing the two categories specified previously (*event* and *process* transparency) and their relation to the main patterns in the sample regarding the temporal, regional, and thematic characteristics found in this sample of the scholarship. A further sub-division is present in the form of the spatiality of the process/event. As mentioned, and warned in (Heald, 2006b). events are clearer and more discernible, whilst processes tend to be diffuse and imprecise. Nevertheless, processes provide important insights into *what* is happening and, upon more contextual information, *why* it is happening.

Here is also relevant to link the relevant questions that reflect transparency's role in public administrations (yet, also applicable to all other areas of socio-political relevance). Not only *what* happening, as discussed, but crucially *where* is it happening. By dissecting these two dimensions one arrives at other more pressing

qualities of transparency's function; that is, the identification of actors, places, and time frames. Although escaping the breadth of this review, by looking at these products of the analyses, one can also endeavour to investigate the *why* and *how* of specific transparency actions (events or processes). An even further interrogation of these issues can then lead to a more critical assessment of the analytical and material foundations of transparency, this time not only as a public policy tool, but also as a narrative and norm.

It is important to note that the information in the table provides very precise scenarios where the final count (*n*) is given by a coincidence of the previous categories. For example, four works deal with transparency processes of *financial accountability channels* in Europe, assigned to topic 2 (Local Government), in the year 2018 (or, an Event/Process-Entity-Year-Topic-Region combination). Reading the rest of the table in such a manner, the previous findings appear more consolidated, as it shows that a) Europe is one of the regions most studied, b) a recent publication skewness given the temporal evolution of transparency's relevance, c) regarding event transparency, the analyses show a thematic and contextual diversity – more varied issues affecting wider scope of entities; and, d) as for process transparency, in line with the scholarship's evolution, the main focus lies on the sub-national (local government) level, though a variety of topics (from open governance to finance regulation) are explored.

Interestingly, as it can be inferred from the table's data, the Canada & USA region is missing. This issue may be explained by a concise fact regarding thematic diversity. That is, research from (and, as seen, about this region) is rather broad, covering a wide-ranging set of topics that dilute the final counting of them. Put otherwise, despite its over-representation, USA and Canada's scholarship remains highly endogenous and it is characterised by a larger palette of thematic and methodological directions (see also Figure 8).

Also, in addressing this topic-locality distinction, some intuition may lead to associate process transparency with some dimensions of quantitative-oriented research. Likewise, event transparency seems to be primarily focused on some levels of qualitative problems. Attending to the imprecision of the processes, some quantitative frameworks may provide complementary insights into data structures and, with it, a variety of operational strategies that overcome the lack of accurate information, offering some alternative explanatory mechanisms. Whereas the determination of the event allows for a comprehensive perspective of the details surrounding it, though quantitative data is also a relevant factor in assessing specific expected outcomes. Both approaches can help to better define the apparent distance between effective vs. nominal transparency (Heald, 2003), particularly when large claims have been made in this regard.

Table 2
Thematic and Temporal Classification of Heald's Event-Process Transparency

Process[a]	Process Entity[b]	Year	Topic[c]	Region Studied[d]	n[e]
Financial accountability channels	Local Government	2018	2	Europe	4
Social media use	Local Government	2016	2	Europe	4
Financial accountability channels	National Government	2016	6	Multi-Region	4
Legitimacy building	Supranational Institutions	2019	6	South - South-East Asia	4
Information disclosure standards	Local Government	2017	3	Latin America	2
Market analysis	Local Government	2017	2	Europe	2
Transparency governance mechanisms	Local Government	2020	2	Europe	2
Financial reporting standards	Local Government	2007	5	Latin America	2
Budget reporting standards	National Government	2013	5	East Asia	2
Fiscal transparency standards	National Government	2013	1	Multi-Region	2
Event[a]	**Event Entity[b]**	**Year**	**Topic[c]**	**Region Studied[d]**	**n[e]**
Forest management policy	Public Administration	2014	6	Europe	4
Information disclosure rules	Local Government	2019	2	Europe	4
Open data policy	Supranational Institutions	2018	3	MENA Region	4
Resource management policy	Supranational Institutions	2015	6	MENA Region	3
Resource management policy	Supranational Institutions	2015	6	Sub Saharan Africa	3
Accountability levels	Civil Society	2020	4	Sub Saharan Africa	2
Accountability levels	Local Government	2015	5	Europe	2
Civic engagement	Public Institutions	2018	6	Sub Saharan Africa	2
Corporate social responsibility policy	Public Administration	2009	6	Global	2
Financial disclosure results	Local Government	2020	4	East Asia	2

Notes: a/ Process and Event are coded as in Heald (2003, 2006b) following the distinction between inputs, outputs, and outcomes – for Events – whilst acknowledging the blurred but describable nature of processes (transformative and linking processes are not differentiated in this classification).
b/ Process and Event Entities are the main organisational bodies carrying out the processes or hosting the events.
c/ Topic classification refers to the LDA generated topics previously described and visualised.
d/ As shown in figure 8 the column refers to the geographic region studied in the counted works.
e/ The total number of works meeting the previous parameters – e.g., analysing the same Event-Entity-Year-Topic combination.

Source: author's own work.

The regional foci seem to reproduce these patterns, evidencing a gap in both theoretical and empirical (and quantitative and qualitative) analyses, which again, can relate to particular institutional needs of differing development stages (Deighton-Smith, 2004, Sovacool et al., 2016, Liuta and Mershchii, 2020). As mentioned before, it is plausible that democratisation waves (Blind, 2014), liberalisation of key markets, and the overall diversification of the economy have influenced a push to new public management (NPM) practices focused on efficiency at all levels of governance (Dorn et al., 2021), though determined by structural inequalities (in terms of resources, democratic consolidation, and civil society participation). Furthermore, the approaches seem to be highly influenced not only by regional or methodological conditions, but by area of application; that is, according to my expanded approach on Heald's typology, on where does transparency-oriented events and processes occur.

This dimension offers a particular insight into the characteristics of hypothesised causes for the over-representation of certain elements in the study of transparency. For example, the dichotomy government-civil society (and the various levels of governance imbued in the former, e.g., local, national, or supranational). This dynamic is also compounded by the role played and interrelations generated by different actors involved, whether at the local or international level. This connects to the previous arguments about efficiency-driven governance through the study of exogenous entities that have a defining role in the policy-shaping mechanisms, as well as in the policy evaluation (e.g., the World Bank, International Monetary Fund, or even United Nations). Also, organisations like the Open Government Partnership (OGP) and the Extractive Industries Transparency Initiative (EITI) have a defining part given their authoritative role in the subject matter, but also due to their involvement with both governments and civil society groups, which makes analytical distinctions and empirical frameworks rather fuzzy and undetermined.

Furthermore, it is the interaction of such asymmetries that generates the most noise. Issues of legitimacy, trust, and effective governance appear to be key elements identified as policy areas wherever (and whenever) events by national or supranational entities are being analysed. What becomes problematic when also considering the directionality of the researched object (but also the research) is the configuration of knowledge or expertise transfer. Looking at the cases listed in the table where the entity (the where of the process or event) has a supranational nature, the region under study seems to systematically be located in the so-called Global South. Attending to possible interpretations of this dynamic, one can also look back at the evolution of transparency research (figures 2 and 7) and assess it more critically. It can be argued that a catch-up effect is at place whereby, as mentioned,

as themes "grow older", newer trends appear – similar to the move from institutional studies of transparency to its local governance dimensions.

Notwithstanding, the study of transparency seems to engage a broad diversity of themes, which are reflected by and through the clustered topics shown hitherto. Said variety of dimensions of transparency is relevant twofold: first, as it centres the attention of policy and administration studies to the role of governance structures and, with it, to the institutional dynamics at play (e.g., checks and balances). And, second, because it allows the scholarship to reflect upon itself and move beyond a single paradigm, as it appears to (continuously) occur. A normative dimension of transparency studies calls for a critical view and study of the mechanisms and implementations of transparency, in order to avoid replicating reductive ideas and decontextualised discourses about and surrounding it.

Additionally, recalling how topics and varieties of transparency relate to each other, and how do they shift over time also carries an implicit question; one that I set as one of my main foci for this systematic review. That is, to interrogate the knowledge production characterisation of the scholarship. Though it may not be problematised enough, asymmetric knowledge landscapes are the norm in academia (Collyer, 2018), in general, and in the social sciences (Alatas, 2003), in particular, where the so-called Global North has a vantage point from which to dictate research agendas and, among other structural determinants, condition funding.

As introduced previously, bringing forth the argument for an explicit thematisation of geographic knowledge production – and consumption – can also shed light onto understanding the epistemic paradigms of regional or trans-regional schools of thought. This is particularly relevant in the field of transparency, considering it a pillar of Western-type good governance.

3.3.- Geography-Bounded Transparency

Yet, it is not the goal in this article to go beyond the scope of a systematic review and, hence, my intention is to show the clear disparity in the geographic distribution of academic output. In addition to that, by showing the unbalanced nature of academic production, an implicit element also arises – namely, what regions are being studied. Figure 8 depicts these relationships in a clear manner; on the one side, where does knowledge come from and, on the other, where is it pointing towards. It is no surprise that the second axis – of regions being studied – is far more fractioned and diverse: Scholars commonly employ case-studies to collect data, create typologies, or proof hypotheses. It may also be the case that scholars from all over the world are affiliated with those institutions producing the most knowledge, identifiably as it is, in the European and the USA and Canada regions.

Figure 8
Transparency Literature – Authors Affiliations per Regional Distribution
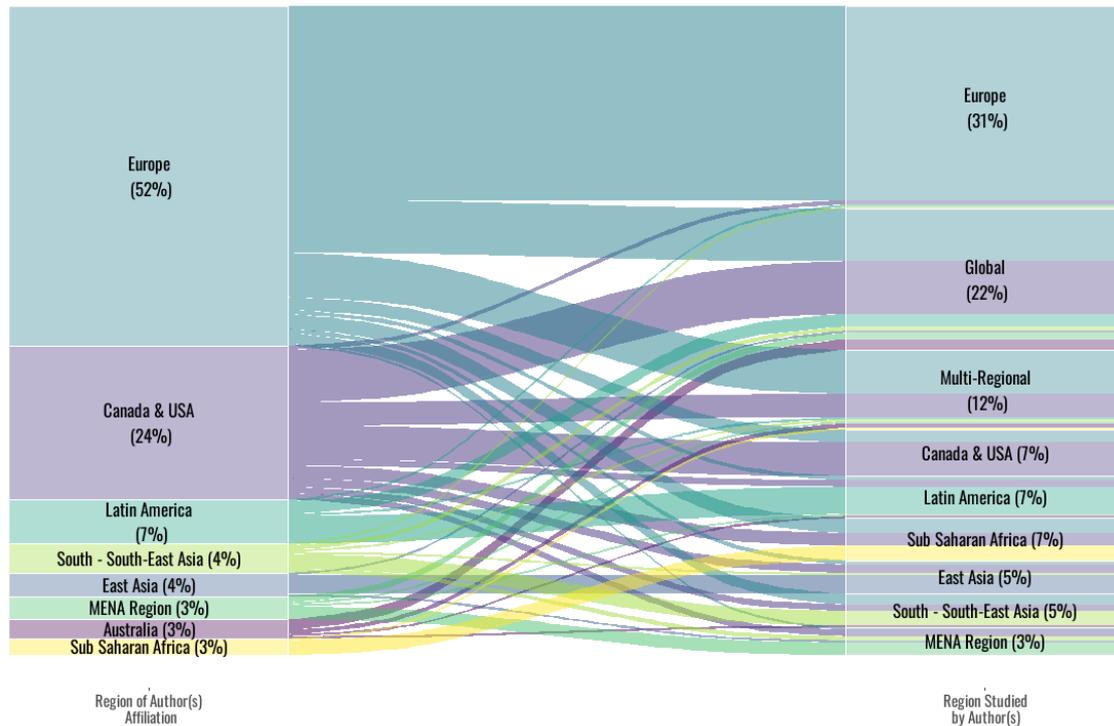
Source: author's own work.

It is also worth noting the role that methodological distinctions play within the geographic–thematic divides. That is not to say that it serves as a bridge of any sort, but rather underscores the uneven thematic distribution of emphases present in the scholarship. Closely related to the previous figure, Table 3 presents an overview of the underlying data considering the sources and targets of academic research into transparency, as well as the topical interests therein. The table helps to better dimension the weight of geographic determinants in knowledge production, in general, and specifically in the framing of transparency within a particular paradigm.

What is directly visible is the expected divide between scholars' own positioning vis-a-vis research interests and the object studied. Larger proportions of the researchers working on the subject focus primarily on three subject areas; namely, Local Government, Institutions, and International Organisations. The latter follows suit with the previous findings regarding the development of the field in multiple avenues considering the governance literature as well as the real-world political events that have shaped the world for the past thirty years (again, here the EITI and OGP play

relevant roles). Complementarily, these issues appear to be the same that have been applied in case-studies in the literature. The distinction is key: Scholars may be affiliated with institutions in countries other than those they choose to investigate. Although – as I showed previously – research tends to be rather endogenous, even within the regions with larger output in the field: Europe, Canada and the USA.

Table 3. Researcher(s) Affiliation and Region(s) Studied per Dominant Topics*

	Regions of Researcher(s) Affiliations					
	Topic					
Region	1	2	3	4	5	6
	Nat. Gov.	Local Gov.	Open Gov.	Corruption	Institutions	Int. Orgs.
Europe	18	50	17	16	25	34
Canada & USA	15	1	7	10	21	17
East Asia	4	-	-	4	2	1
South - South-East Asia	3	2	6	2	1	-
Australia	2	-	1	1	2	3
Latin America	2	6	8	1	3	1
MENA- Region	2	-	9	-	-	-
Global[a]	1	-	-	-	-	-
Sub Saharan Africa	1	-	1	1	1	4
Regional[b]	-	-	-	1	-	-
	Regions Studied by Researcher(s)					
	Topic					
Region	1	2	3	4	5	6
	Nat. Gov.	Local Gov.	Open Gov.	Corruption	Institutions	Int. Orgs.
Global[a]	14	1	9	12	17	6
Multi-Region[c]	14	3	4	-	4	10
East Asia	5	-	1	4	4	2
Europe	5	41	6	3	16	10
South - South-East Asia	3	2	3	3	-	5
Canada & USA	2	1	5	3	6	5
Sub Saharan Africa	2	-	-	4	2	12
EU[d]	1	3	2	2	3	3
Latin America	1	6	10	3	2	2
MENA Region	1	-	8	1	-	3

Notes: */ The cell counts refer to total researchers' count; that is, in cases where works are authored by multiple persons, the total sum of individual affiliations is taken.
a/ Global refers to studies which use large N datasets comprising > 100 countries.
b/ Regional refers to studies focusing on subcontinental territories with corresponding similarities or differences.
c/ Multi-Region refers to studies with samples with small or medium N that cover two or more continents or subcontinental regions.
d/ Europe and EU (European Union) are differentiated on the political-administrative terms the second entails.
Source: author's own work.

Complementing the analysis Table 4 informs about the methodological differences, again, in relation to the topical direction of the research. I have separated the sample into the *empirical* and *theoretical* coded works per thematic orientation within the aforesaid six main topics. For example, it is not unusual that some topic orientations are methodologically exclusive, in that a panel study would unlikely imply an index estimation. However, multi-coding is common, as index estimations usually follow (or precede) some type of regression analysis (which is also the case for panel cases).

Yet, coded in the table are only the main features of each work, for which the scholars underlined – in most cases – their methodological value. This also highlights the fact that, in addition to counting more total works, the count for empirical works includes more multi-coded elements. For example, the use of regression analysis is commonly expanded through panel data, instrumental variables, or time-series. This is less common in the theoretical works where, usually, a singular methodological design excludes other approaches. Despite no definite trend noticeable, there are patterns pointing towards the abundance of research designs for a particular topic (more theoretical and/or qualitative for Institutions and International Organisations, and more empirically-driven for National Government themes). These issues clearly depend on the questions asked and the variables considered.

Table 4. Thematic Differences per Methodological Approach*

Region	Topic					
	1	**2**	**3**	**4**	**5**	**6**
	Nat. Gov.	Local Gov.	Open Gov.	Corruption	Institutions	Inst. Orgs.
Empirical Works (n = 149)	36 (77)	44 (89)	24 (47)	14 (24)	9 (17)	22 (61)
Theoretical Works (n = 86)	2 (4)	3 (3)	14 (26)	14 (29)	36 (68)	17 (40)

Notes: */ Values stand for each work classified in the respective topic. Values in parentheses amount to each specific methodological approach used finely classified. The sum of Empirical and Theoretical works is less than 242 due to the presence of works covering both theory-building and empirical applications (*n* = 7). Also, as stated in the text, the values in parentheses includes double counting for most of the empirical works, since the categories are complementary (e.g., regression analysis plus time-series; or regression analysis plus panel data).

Source: author's own work.

From an epistemic lens these results also shed light onto the differences that methods can introduce and reproduce in the study of any phenomenon. For example, exclusively qualitative studies are seldom, whilst exclusively quantitative studies are more common. This could be more finely disaggregated when considering that research on Open Government is, both, more focused on specific case studies (as opposed to large comparative analyses) and descriptive. This feeds into the current of context-dependency and relationality (Lejano, 2021) that gives foundation to some public administration practices recently – the same applies for Institutions. However, Local Government seems to be an area heavily oriented towards the quantification of analyses, many looking into comparative perspectives assessing, amongst others, levels of development or practices of technological standards (Gandia et al., 2016, Villoria Mendieta and Iglesias Alonso, 2017). Since local governance studies seem largely focused on digital practices of the administrations, scholars seem to lean towards a comparative framework in order to generate their own insights into best uses and possibilities for increasing transparency and, with it, tackling issues of corruption and trust (Sofyani et al., 2020).

All things considered, the research landscape in the field of transparency seems to be fragmented (increasingly so in time) and, mostly, hegemonically-driven from its output sources (the so-called Global North). Regions with smaller share of the total output of publications appear to focus largely on their own regional issues, whilst regions with a larger share of the output cover not only their own territorial issues, but – usually on empirically applied cases – map their studies onto other regions. This phenomenon underscores the different audiences and the reception of knowledge by these audiences, but mostly an epistemic divide driven by, presumably, local institutional weaknesses which reinforce a feedback cycle among the Canada, USA and, Europe regions in regard to their academic output. It is plausible that a large diaspora of scholars associated to so-called Global North institutions focus their attention to their homelands, simultaneously contributing to this divide, but effectively highlighting the differences in resources and research structures. These considerations are made in light of the sample ($n = 242$) of this study and, thus, only reflect but a partial image of the scholarly landscape.

4.- Discussion

Potential issues regarding knowledge production appear to be driven by the role of the knowledge producer – or, at least, the one who outputs such knowledge. Much of the output in the transparency field is centred at two main poles which, additionally, seem to be driving some key dimensions of the field's scholarly agenda, such as its theoretical background. The intersection of the thematic and methodological divisions alongside regional lines indicates that so-called Global North regions focus more on theoretical approaches to transparency, whilst other

regions seem to focus more on empirical investigations, presumably accounting for governance impacts of policy changes in relation to a given transparency standard.

Said transparency standard(s) are dependent on context and institutional capacity; or so goes the premise (Chen & Ganapati, 2021; Cucciniello et al., 2017; Heald, 2012). The sample analysed seems to point in a direction supporting this claim, at least to the extent that the prominence of the locality can be understood as contextual specificity. However, the empirical relevance of case studies revolving around entities such as EITI or OGP point to the other direction. These latter institutions provide a framework for tackling corruption and other maladies associated with lack of transparent structures and, critically, they serve as conduits for a political economy of policy based on the international system's standards (Chatwin et al., 2019), mirroring the North-South problematic.

The findings presented here are indicative of a complex and evolving field which seems to have shifted its attention dependent on many influencing factors. Informed by the topics and methods seen in the sample, it is plausible to link changes in the framing of public administration standards (emergence and consolidation of NPM as an important one) to the evolution in the literature's foci. Waves of democratisation in the last thirty years, as well as the technical-administrative challenges of participation and openness, may have also contributed to this thematic shift.

The identification of the figurative move from one topic to another through time is also reflective of methodological concerns closely tied to the imperative to highlight transparency as a driving meta-concept in the governance and public administration scholarly (and practical) fields. The interplay between theoretical and empirical approaches, promoting new conceptualisations, models, or analytical techniques is a reflection of these dynamics. Evidence shown in this paper is useful for acknowledging that there have been significant contributions that appear to intersect – if not, overlap. Such a systemic outlook allows scholars to identify not only trends, but also gaps that could be covered in a wide variety of methodological terms. These insights could also contribute to further harmonise the conceptual landscape of transparency, shedding light onto the intersections and commonalities found in the literature.

Following Heald's analytic *varieties* typology, identifying more precisely such trends and gaps is also a less daunting task. The event-process differentiation enables a closer examination of motives, backgrounds, and analytical settings. This framing has hence proven an appropriate complement to the more technical inspection of the topics and their interlacement, expanding the structural study of the sample and its characteristics into a more substantive analysis. It also underscores the role of institutions as source of trust and regulation (Rawlins, 2008, Schnackenberg et al., 2021), in that it is in these where most of the literature points towards the effects of

transparency happening. However, it is not to say that research must continue to focus on them; rather, studies could approach a more dynamic analysis of transparency by engaging with other actors, as well as other levels.

Thus, identifying the subtleties of local vs national governments, or civil society vs supranational (or international) organisations is therefore key to understand what drives transparency policies and development frameworks, which would contribute to a more effective policy-driven research sub-field. In this regard, the summary of insights produced by analysing the LDA outputs points mainly towards two key elements that cut across the different approaches and elements; mainly, the sources, channels, and nature of information, as well as the existence of accountability instances. This leads unmistakably to a common base irrespective of thematic, methodological, or regional differences, as it also bridges conceptually to the event-process categorisation providing analytical tools to deepen future research in the field, which, as it was shown, remains highly concerned with the dynamics of corruption.

The latter elements help as guides from which new potential agendas of transparency studies can be suggested. As such, I recognise that a comprehensive framework of transparency should include a component on information (its availability, its quality, or its timeliness), as well as a component on voice mechanisms, i.e., accountability and trust generating channels. From these, future studies can build upon the insights shown here; on the one side, local and regional studies seem to be a powerful driver of technical and conceptually rich approaches. On the other side, interconnection with different actors at different levels represents a key factor in order to understand the elements (information and/or accountability) driving transparency in relation to governance and democratic analyses and also setting a contrast regarding corruption studies.

In relation to the methodology, this paper's contribution is expected to be taken as an extension on previous similar, systemic reviews (Cucciniello et al., 2017, Tai, 2021), but also as a parting point for more analyses that incorporate computer-assisted methods and a more critical perspective. Further exercises could revisit the modelling structure and analyse its performance vis-a-vis other estimation techniques, with different subjects, or with expanded datasets. This would also provide more visibility and dissemination to the subject-matter and the methods.

5.- Conclusion

In this article I aimed at addressing three main points; to identify the intersectional patterns that appear in the transparency scholarship, to address the conceptual-methodological approach based on the event and process transparency types, and, finally, to frame the systematic review within an alternative and novel data-gathering and analysis method. Some limitations arise, naturally, when considering the size of the sample and the coding structure, as well as the conceptual underpinnings, as these are subject to researcher-bounded biases. Further studies like this one could build up on the lessons learned here and expand or problematise them.

The insights I was able to synthesise from the literature point towards varied directions in thematic, methodological, and object-specific areas. Not only is the focus of research different as it was ten or twenty years ago, in general, but it also varies according to the geographic context that fosters the academic output. Moreover, the thematic relevance of some issues – or topics – also seems to be context-dependent as various dimensions of governance are studied differently, and under different conceptions and premises of transparency.

Problematic observations may also arise regarding the dominance of so-called Global North institutions in the output of knowledge. This carries and important load in terms of epistemological and analytical determinants since, as it was shown, most of the theoretical approaches are generated from institutions in the European continent, while empirical studies are more common in the regions of the so-called Global South. Still, as mentioned, no explicit reference to a shared conceptual base of transparency is found – only the coincidence of persistent elements seems transversal, i.e., information, data, corruption, and accountability.

With these findings in mind is important to assess more critically the dynamics of concept formation, knowledge production and consumption, as well as the approaches that emphasise the relevance of context conditions. I consider the conceptual disunity and, nonetheless, the diverse thematic and analytical production the main insight in regard to transparency, as well as a lesson for more in-depth and harmonious approaches in the future. It is therefore a fitting suggestion to stress the need for such systematic reviews, in order to uncover topics and trends that may determine the way in which the research is being conducted.

Following Justice Brandeis' metaphor, transparency seems to be the main focus (*sunlight*) whilst defining and interpreting it, and crucially the approaches to study it (electric light) appear to be conflictive processes in the search for open and democratic societies.

References

AGHION, P., AKCIGIT, U., CAGÉ, J., and KERR, W. R., 2016. "Taxation, corruption, and growth". *European Economic Review*, 86: 24–51.

ALATAS, S. F., 2003. "Academic Dependency and the Global Division of Labour in the Social Sciences". *Current Sociology*, 51: 599–613.

ALLOA, E. and THOMÄ, D., 2018a. "Transparency: Thinking Through an Opaque Concept". *In*: *Transparency, Society and Subjectivity: Critical Perspectives* (eds. E. ALLOA and D. THOMÄ). Cham: Springer International Publishing, 1–14.

ALLOA, E. and THOMÄ, D., eds., 2018b. *Transparency, Society and Subjectivity: Critical Perspectives*. 1st ed. Cham: Springer International Publishing.

ANDRADES, J., MARTINEZ-MARTINEZ, D., LARRAN, M., and HERRERA, J., 2019. "Online information disclosure in Spanish municipal-owned enterprises A study based on the compliance with transparency requirements". *Online Information Review*, 43: 922–944.

ARGYROUS, G., 2012. "Evidence Based Policy: Principles of Transparency and Accountability". *Australian Journal of Public Administration*, 71: 457–468.

BALL, C., 2009. "What Is Transparency?". *Public Integrity*, 11: 293–308.

BANNISTER, F. and CONNOLLY, R., 2011. "The Trouble with Transparency: A Critical Review of Openness in e-Government". *Policy & Internet*, 3: 1–30.

BARASSI, M. R. and Zhou, Y., 2012. "The effect of corruption on FDI: A parametric and non-parametric analysis". *European Journal of Political Economy*, 28: 302–312.

BIRCHALL, C., 2021. *Radical secrecy: the ends of transparency in datafied America*. Minneapolis [Minnesota]: University of Minnesota Press.

BLEI, D. M., NG, A. Y., and JORDAN, M. I., 2003. "Latent dirichlet allocation". *Journal of Machine Learning Research*, 3: 993–1022.

BLIND, P., K., 2014. *Policy-Driven Democratization. Geometrical Perspectives on Transparency, Accountability, and Corruption*. New York: Palgrave Macmillan.

CHAMBERLAIN, S., 2021. "fulltext: Full text of 'scholarly' articles across many data sources". Available from: https://CRAN.R-project.org/package=fulltext.

CHATWIN, M., ARKU, G., and Cleave, E., 2019. "Defining subnational open government: does local context influence policy and practice?". *Policy Sciences*, 52: 451–479.

CHEN, C. and GANAPATI, S., 2021. "Do transparency mechanisms reduce government corruption? A meta-analysis". *International Review of Administrative Sciences*, August: 1–16.

COLLYER, F. M., 2018. "Global patterns in the publishing of academic knowledge: Global North, global South". *Current Sociology*, 66: 56–73.

CUCCINIELLO, M. and NASI, G., 2014. "Transparency for Trust in Government: How Effective is Formal Transparency?". *International Journal of Public Administration*, 37: 911–921.

CUCCINIELLO, M., PORUMBESCU, G. A., and GRIMMELIKHUIJSEN, S., 2017. "25 Years of Transparency Research: Evidence and Future Directions". *Public Administration Review*, 77: 32–44.

DEIGHTON-SMITH, R., 2004. "Regulatory transparency in OECD countries: Overview, trends and challenges". *Australian Journal of Public Administration*, 63: 66–73.

DORN, F., GAEBLER, S., and ROESEL, F., 2021. "Ineffective fiscal rules? The effect of public sector accounting standards on budgets, efficiency, and accountability". *Public Choice*.

ELLIS, C. J. and FENDER, J., 2006. "Corruption and Transparency in a Growth Model". *International Tax and Public Finance*, 13: 115–149.

ERKKILÄ, T., 2020. "Transparency in Public Administration". *Oxford Research Encyclopaedia of Politics*, May: 1–21.

FOX, J., 2007. "The uncertain relationship between transparency and accountability". *Development in Practice*, 17: 663–671.

GANDÍA, J. L., MARRAHI, L., and HUGUET, D., 2016. "Digital transparency and Web 2.0 in Spanish city councils". *Government Information Quarterly*, 33: 28–39.

GOLDRING, J., 1984. "Public Law and Accountability of Government". *Federal Law Review*, 15: 1–38.

GRIMMELIKHUIJSEN, S., 2012. "Linking transparency, knowledge and citizen trust in government: an experiment". *International Review of Administrative Sciences*, 78: 50–73.

GRÜN, B. and HORNIK, K., 2011. "topicmodels: An *R* Package for Fitting Topic Models". *Journal of Statistical Software*, 40: 1-30.

GUILLAMÓN, M.D., BASTIDA, F., and BENITO, B., 2011. "The Determinants of Local Government's Financial Transparency". *Local Government Studies*, 37: 391–406.

HEALD, D., 2003. "Fiscal transparency: Concepts, measurement and UK practice". *Public Administration*, 81: 723–759.

HEALD, D., 2006a. "Transparency as an Instrumental Value". *In*: *Transparency: The Key to Better Governance?* (eds. C. HOOD and D. HEALD). Oxford: Oxford University Press, 59–73.

HEALD, D., 2006b. "Varieties of Transparency". *In*: *Transparency: The Key to Better Governance?* (eds. C. HOOD and D. HEALD). Oxford: Oxford University Press, 25–43.

HEALD, D., 2012. "Why is transparency about public expenditure so elusive?" *International Review of Administrative Sciences*, 78: 30–49.

HOOD, C. and HEALD, D., eds., 2006. *Transparency: The Key to Better Governance?* Oxford: Oxford University Press.

IWASAKI, I. and SUZUKI, T., 2012. "The determinants of corruption in transition economies". *Economics Letters*, 114: 54–60.

LEJANO, R. P., 2021. "Relationality: an alternative framework for analysing policy". *Journal of Public Policy*, 41: 360–383.

LIBERATI, A., ALTMAN, D. G., TETZLAFF, J., MULROW, C., GØTZSCHE, P. C., IOANNIDIS, J. P. A., CLARKE, M., DEVEREAUX, P. J., KLEIJNEN, J., and MOHER, D., 2009. "The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate healthcare interventions: explanation and elaboration". *BMJ*, 339: b2700.

LINDSTEDT, C. and NAURIN, D., 2010. "Transparency is not Enough: Making Transparency Effective in Reducing Corruption". *International Political Science Review*, 31: 301–332.

LIUTA, O. and MERSHCHII, B., 2020. "Assessment of the social and economic development of a region: essence, methodology and correlation with transparency of local authorities". *Public and Municipal Finance*, 8: 83–93.

MAURO, P., 1995. "Corruption and Growth". *The Quarterly Journal of Economics*, 110: 681–712.

MEIJER, A., 2014. "Transparency". *In*: *The Oxford Handbook of Public Accountability* (eds. M. BOVENS, R.E. GOODIN, and T. SCHILLEMANS). Oxford: Oxford University Press, 507–524.

MEIJER, A., 'T HART, P., and WORTHY, B., 2018. "Assessing Government Transparency: An Interpretive Framework". *Administration & Society*, 50: 501–526.

MONTEDURO, F. and ALLEGRINI, V., 2020. "How outsourcing affects the e-disclosure of performance information by local governments". *Government Information Quarterly*, 37: 101398.

NAURIN, D., 2007. "Transparency, Publicity, Accountability – The missing links". Presented at the *Delegation and Mechanisms of Accountability in the EU*, Uppsala: CONNEX-RG2, 12.

PIOTROWSKI, S. J., 2012. *Governmental Transparency in the Path of Administrative Reform*. New York: SUNY Press.

RAWLINS, B., 2008. "Give the Emperor a Mirror: Toward Developing a Stakeholder Measurement of Organizational Transparency". *Journal of Public Relations Research*, 21: 71–99.

RETHLEFSEN, M. L., KIRTLEY, S., WAFFENSCHMIDT, S., AYALA, A. P., MOHER, D., PAGE, M. J., KOFFEL, J. B., BLUNT, H., BRIGHAM, T., CHANG, S., CLARK, J., CONWAY, A., COUBAN, R., DE KOCK, S., FARRAH, K., FEHRMANN, P., FOSTER, M., FOWLER, S. A., GLANVILLE, J., HARRIS, E., HOFFECKER, L., ISOJARVI, J., KAUNELIS, D., KET, H., LEVAY, P., LYON, J., MCGOWAN, J., MURAD, M. H., NICHOLSON, J., PANNABECKER, V., PAYNTER, R., PINOTTI, R., ROSS-WHITE, A., SAMPSON, M., SHIELDS, T., STEVENS, A., SUTTON, A., WEINFURTER, E., WRIGHT, K., YOUNG, S., and PRISMA-S Group, 2021. "PRISMA-S: an extension to the PRISMA Statement for Reporting Literature Searches in Systematic Reviews". *Systematic Reviews*, 10: 1–19.

SAXENA, S. and MUHAMMAD, I., 2018. "Barriers to use open government data in private sector and NGOs in Pakistan". *Information Discovery and Delivery*, 46: 67–75.

SCHARPF, F. W., 1998. *Interdependence and democratic legitimation*. MPIfG working paper. Available from: https://www.econstor.eu/handle/10419/41689.

SCHMIDTHUBER, L., INGRAMS, A., and HILGERS, D., 2021. "Government Openness and Public Trust: The Mediating Role of Democratic Capacity". *Public Administration Review,* 81: 91-109.

SCHNACKENBERG, A. K., TOMLINSON, E., and COEN, C., 2021. "The dimensional structure of transparency: A construct validation of transparency as disclosure, clarity, and accuracy in organizations". *Human Relations*, 74: 1628–1660.

SILGE, J. and ROBINSON, D., 2017. *Text mining with R: a tidy approach*. First edition. Beijing; Boston: O'Reilly.

SOFYANI, H., RIYADH, H. A., and FAHLEVI, H., 2020. "Improving service quality, accountability and transparency of local government: The intervening role of information technology governance". *Cogent Business & Management*, 7: 1–20.

SOVACOOL, B. K., WALTER, G., VAN DE GRAAF, T., and ANDREWS, N., 2016. "Energy Governance, Transnational Rules, and the Resource Curse: Exploring the Effectiveness of the Extractive Industries Transparency Initiative (EITI)". *World Development*, 83: 179–192.

TAI, K.-T., 2021. "Open government research over a decade: A systematic review". *Government Information Quarterly*, 38: 101566.

TIMMERMANS, S. and TAVORY, I., 2012. "Theory Construction in Qualitative Research: From Grounded Theory to Abductive Analysis". *Sociological Theory*, 30: 167–186.

TRANSPARENCY INTERNATIONAL and UN HABITAT, 2004. *Tools to support transparency in local governance*. Berlin: United Nations Human Settlements Programme.

VIJGE, M. J., METCALFE, R., WALLBOTT, L., and OBERLACK, C., 2019. "Transforming institutional quality in resource curse contexts: The extractive industries transparency initiative in Myanmar". *Resources Policy*, 61: 200–209.

VILLORIA MENDIETA, M. and IGLESIAS ALONSO, A., 2017. "Developments in transparency in the Spanish municipalities: An analytical revision of the last research". *Lex Localis - Journal of Local Self-Government*, 15: 411–432.

WANG, Q. and GUAN, Z., 2022. "Can Sunlight Disperse Mistrust? A Meta-Analysis of the Effect of Transparency on Citizens' Trust in Government". *Journal of Public Administration Research and Theory*, 33: 453-467.

WILLIAMS, A., 2014. "Using the Release of Information as an Indicator of Government Transparency". *In*: *Corruption, Good Governance and Economic Development* (eds-R.N. Ghosh and M.A.B. Siddique). Singapore: World Scientific Publishing, 25–45.

ZHAO, J. H., KIM, S. H., and DU, J., 2003. "The Impact of Corruption and Transparency on Foreign Direct Investment: An Empirical Analysis". *MIR: Management International Review*, 43: 41–62.