From professional bureaucracy to "indicatocracy": towards a model of organizational and identity transformations in business schools

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Abstract

This essay explores the contemporary rise of the 'indicatocracy', a new type of organization which has become pervasive in professional organizational fields such as business schools, universities, or hospitals. As a neologism combining the concepts of 'bureaucracy' and 'indicators', we define 'indicatocracy' as a specific organizational arrangement that operates at the level of an organizational field, spanning multiple professional organizations, through the disciplinary power of indicators. Building on the literature on business school transformations over the last decades, we develop propositions on the emergence and impacts of indicatocracies. We reveal their main disciplinary effects and show how they transform professional organizations by reshaping internal and external power structures, work and professional identities through increased managerial control and field-level mechanisms. The conclusion of this essay proposes a research agenda to stimulate future research on indicatocracies.

Keywords

organizational design, formal structure, indicatocracy, standards, business schools

INTRODUCTION

Business schools have traditionally been described as organizations following a professional logic. Conceptualized by Simon (1967) as a type of 'professional school', the literature describes business schools as professional organizations (Scott, 1965) or as professional bureaucracies (Mintzberg, 1979). Within these organizations, professionals play a central role in achieving organizational goals. They are supposed to control expert knowledge (Abbott, 1988), resist change, enjoy – and protect – a high degree of autonomy, play a central role in the governance of the organization, and exert power and control over field-level frames (Greenwood, Suddaby, & Hinings 2002). As Brock notes, the professional organization is viewed as one

> where power rests in the hands of professional experts, managers administer the facilities and support the professionals, decisions are made collegially, change is slow, and strategy is formulated consensually. There is little hierarchy and a relatively high degree of vertical and horizontal differentiation. Co-ordination and control occur through the standardization of skills and a strong clan culture of professionalism rather than through formalized systems and supervision (2006, p.160).

However, business schools have undergone fundamental transformations over the last few decades, both in terms of coordination mechanisms, working conditions, logics, governance and external control mechanisms. The autonomy of professionals? It would appear that academics have surrendered it and submitted to the sirens of managerialism (Alvesson & Spicer, 2017). Their power? It now seems to be in the hands of external agents such as the media and accreditation bodies, whose influence has been decisive in recent decades (Gioia & Corley, 2002; Julian & Ofori-Dankwa, 2006). Academic culture? It seems to have been killed off by the race to publish and the transformation of academic life into a vast game (Butler & Spoelstra, 2020). And limited hierarchy and collegial decision-making are difficult to defend

given the rise of external agents that structure the field and establish multiple and fragmented hierarchies: between accredited business schools and the rest; between researchers who publish in A-journals and the rest (Aguinis et al., 2020).

As a result of these changes, business schools seem to exhibit fewer and fewer of the canonical traits of professional organizations. However, there has been little theorization by management scholars on the type of organizational structure business schools have taken on today. This situation may be partly due to the rules of the publication 'game', in which conceptual, multidisciplinary and holistic approaches are less bankable (Miller, Greenwood, & Prakash, 2009; Davis, 2010, 2015; Daft & Lewin, 2008). Admittedly, many articles have documented parts of these evolutions, and various concepts have been proposed to make sense of transformations such as taylorization (Mingers & Willmott, 2013), managerialization (Alvesson & Spicer, 2017), commodification (Connelly & Gallagher, 2010), marketization (Mehrpouya & Willmott, 2018) or accreditocracy (Julian & Ofori-Dankwa, 2006). However, these works do not formally describe the systemic transformations and structural configuration of business schools today. Despite a growing body of research on various evolutions in business schools, the different elements have often been considered in isolation and it is unclear how they converge in a coherent organizational configuration and what structural transformations they cause.

The objective of this paper is to introduce such an organizational model. Specifically, the thesis of this article is that business schools can no longer be described as professional organizations, and that they have shifted towards a new organizational form that we propose to call 'indicatocracy'. A neologism combining the concepts of 'bureaucracy' and 'indicators', we define indicatocracy as a new organizational form that operates at the level of an organizational field, spanning multiple individual professional organizations, through the disciplinary power of indicators. We claim that indicatocracy constitutes a central vehicle for bringing about
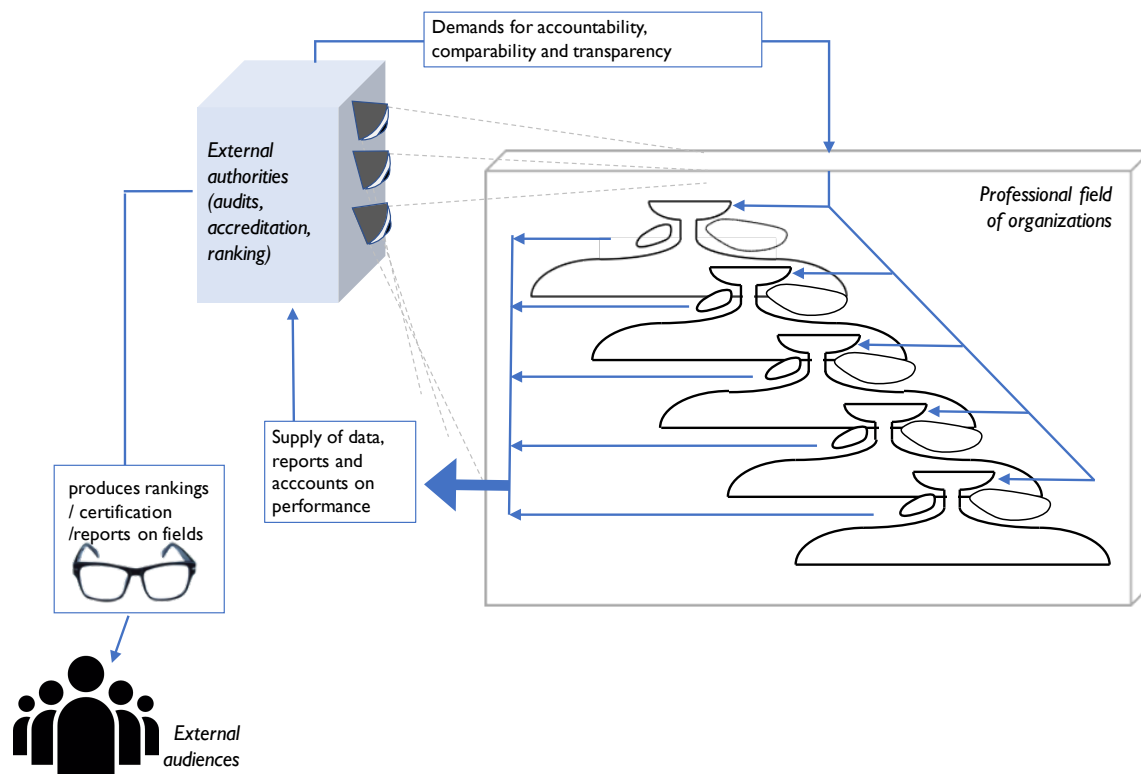
change in professional organizations such as business schools by introducing market and corporate logics alongside professional logics (Thornton, Ocasio & Lounsbury, 2012). As compared to canonical professional organizations, indicatocracies present a high degree of managerial control (high power of middle managers), a lower level of operational autonomy (lower professional autonomy), and a low level of strategic autonomy (low power of top management), as external agencies tend to 'absorb' strategy and standardize the rules of the game among field members.

In the spirit of 'getting it all together' (Mintzberg, 1979; Miller, 1996) that is associated with organizational configurations, we provide an ideal-typical description of indicatocracy, inspired by Mintzberg's configurational analysis (1979, 1980). While descriptions of organizational forms are usually made at the organizational level, we formalize indicatocracy by considering both the field (section 1) and the organizational levels (section 2). Building on extant research on business schools, we formulate propositions to explain the rise of indicatocracies (section 3) and to understand their effect on competition and on the professionals working in business schools (section 4). In the conclusion, we highlight our theoretical contributions and identify avenues for future research.

1. INDICATOCRACY: ORGANIZATIONAL FIELDS

One of the key features of an indicatocracy is that it operates at the scale of an organizational field (DiMaggio & Powell, 1983), i.e. at the level of "a community of organizations that partakes of a common meaning system and whose participants interact more frequently and fatefully with one another than with actors outside the field" (Scott, 1995, p. 56). An indicatocracy brings together a collective of organizations in the same field, which it aims to structure, regulate and make more controllable and homogeneous for external audiences (Figure 1).

Figure 1 Indicatocracy as a new organizational form – a graphic representation

Demands for accountability, comparability and transparency

External authorities (audits, accreditation, ranking)

Professional field of organizations

Supply of data, reports and acccounts on performance

produces rankings / certification /reports on fields

External audiences

1.1. THE CENTRAL ROLE OF EXTERNAL AGENCIES

A key dimension of indicatocracies concerns the role of external agencies which mediate the relationship between external audiences and professional organizations. In the case of business schools, some of these entities are accreditation bodies such as the Association to Advance Collegiate Schools of Business (AACSB) and the European Quality Improvement System (EQUIS). Additionally, there are various bodies like UT Dallas or national institutions such as the Chartered Association of Business Schools in the UK and the Fondation Nationale pour l'Enseignement de la Gestion des Entreprises (FNEGE) in France that rank academic journals and publications, while media such as *Business Week* or the *Financial Times (FT)* rank business schools and programmes. Most of these entities developed rankings and accreditations between the end of the 1980s and 2000. *Business Week* was the first magazine to produce a ranking of business schools in the United States in 1988 (Davies & Salterio, 2007), before many newspapers in the US, Europe, and other countries followed suit (*Wall Street Journal*, *FT*, etc.).

The introduction of the *Business Week* ranking revolutionized the way business schools were perceived by the public and how they perceived themselves (Davies & Salterio, 2007). This led business schools to become more market driven (Zell, 2001). AACSB was created in 1916, but it long had a very limited influence over the field (Khurana, Kimura & Fourcade, 2011). It began accrediting business schools outside the US in 1997 (the first being Essec in France), the same year the European Foundation for Management Development (EFMD) launched the EQUIS accreditation. Organizationally, these external actors may be emanations of organizations in the field themselves, and in particular meta-organizations (Ahrne & Brunsson, 2008), which bring together a collective of organizations in a democratic logic. In the business school field, this is the case of AACSB, EFMD, and the Chartered Association of Business Schools. They may also be independent ranking and rating entities external to field members, such as the Michelin guide in the world of restaurants.

1.2. AN UNDERLYING PRINCIPLE OF DECONTEXTUALIZATION AND COMPARABILITY

Such external agencies translate external needs for visibility into demands for accountability, comparability and transparency. Indeed, because of the inherent complexity of professional activities, external audiences (public or private authorities, funding agencies, clients, users, potential workers) face a high level of uncertainty regarding the quality and performance of what is produced by the organization. External agencies fill this gap by reframing status arenas, and producing information in the form of rankings, accreditations and reports (Espeland & Sauder, 2016). In the case of business schools, this is particularly true in a context of internationalization where all stakeholders (academics, clients, students) may not be aware of the prevailing status hierarchy in the local context. Rankings and accreditations are meant to increase accountability and transparency in the field (Gioia & Corley, 2002). They rest on a postulate that it is possible to compare organizations in the same field with each other, despite their singularities (Karpik, 2010) and the important differences which may exist between them.

The indicatocracy fundamentally reconfigures competition by decontextualizing its member organizations, flattening their specificities, or reframing these specificities into categories and status hierarchies / stratifications shaped by ranking models. For instance, to build or reinforce their status hierarchy in this new arena, a significant reconfiguration occurred within French business schools (Kodeih & Greenwood, 2014), which moved away from a vocational and national research orientation and adopted a more global identity linked to international research networks (Dubois & Walsh, 2017). Another example concerns the evaluation of research in business schools where quantitative assessment based on the number of articles published in the best ranked international, i.e. English-language journals takes prevalence over more national, qualitative and content-based assessments of research (Aguinis et al., 2020).

## 1.3. CONTROL BASED ON INFORMATION FLOW, METRICS AND INDICATORS

In indicatocracies, control is shaped in a hybrid way between bureaucracies and markets: it is simultaneously externalized from individual professional organizations and centralized by external agencies, which become a key part of the organizational configuration. External agencies develop indicators of performance through certifications, field reports and rankings to produce information for external audiences than can be both qualitative and quantitative. The emergence of an audit society (Power, 1997) has given birth to a myriad of tools aimed at assuring external audiences that organizations abide by certain standards of quality. These qualities are often assessed in terms of process conformity (Guler et al., 2002) or accounting procedures (Jamali, 2010). In the field of business education, meta-organizations such as AACSB or EFMD deliver an accreditation or label in order to provide a distinctive signal about the qualities of schools. They have played a significant role in creating isomorphism among business schools in terms of course content, curricula, internal academic structures (with research vs. teaching faculty) and the formalization of managerial processes to report on progress made. Business school rankings function differently from accreditations or

certifications: instead of signalling procedural compliance and common standards of quality among field members, they organize competition among business schools based on a set of quantitative and qualitative criteria to establish a performance (and status) hierarchy. For their own operations, these external agencies rely on actors responsible for defining and weighing the indicators, gathering data in order to 'feed' the ranking system (reporting), and verifying that the information transmitted by the business schools is correct (audit).

2. INSIDE THE 'INDICATOCRATIZED' PROFESSIONAL ORGANIZATION

'Indicatocratized' professional organizations have to undertake significant transformations to respond to the institutional demands of external actors (see Figure 2). The concept of indicatocracy does not imply a complete loss of professional characteristics but underlines how professionals are becoming managed by indicators, how professional logics are increasingly shaped by accountability and comparability, and how these changes are shifting power relationships within organizations.

Figure 2: Formal organizational impacts of an indicatocracy on a professional bureaucracy

Classic professional bureaucracies
(Mintzberg, 1979)

« Indicatocratized » professional bureaucracies
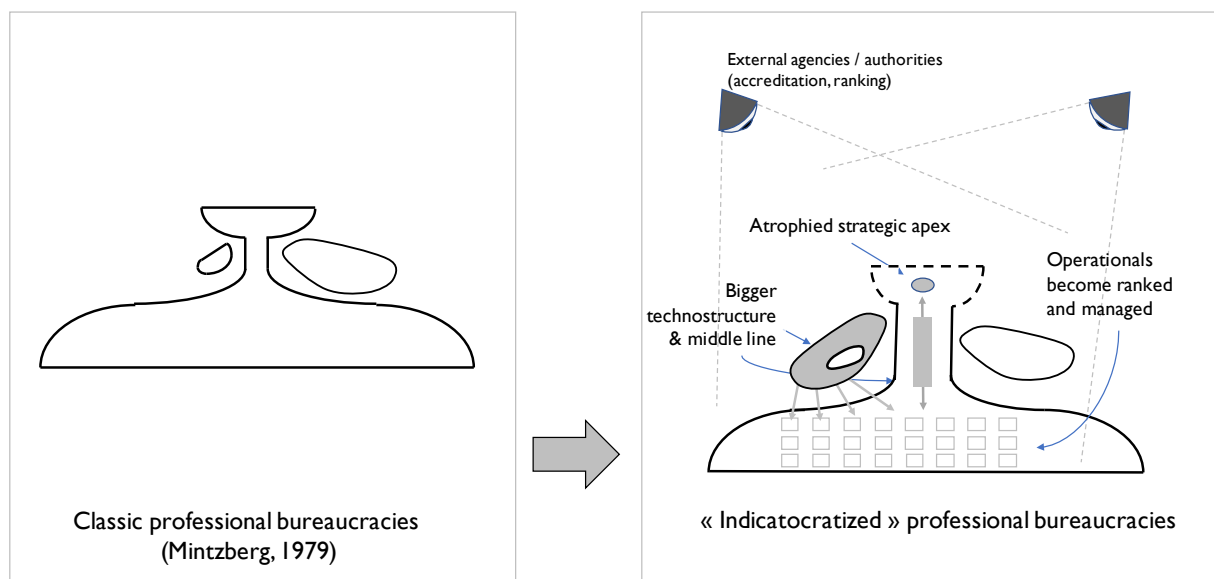
2.1. BIGGER BUREAUCRATIC AND ADMINISTRATIVE BODIES

As compared to professional bureaucracies, organizations belonging to indicatocracies present a significantly bigger technostructure, in the form of administrative staff, whose role is to make the activity auditable by producing formal accounts of activity and performance, as well as to implement new standards. They translate and implement demands from external authorities into internal processes and are responsible for reporting (supplying data, accounts and performance reports). This echoes the emergence of 'managed professional bureaucracies', i.e. structures which hybridize professional and managerial logics and are marked by the rise of managerial power and control over highly skilled professional work (Cooper, Hinings, Greenwood, & Brown, 1996; Lega & De Pietro, 2005). While there are no specific figures for business schools, Delucchi et al. (2021) report that in the US education sector, over the period 1976-2018, the number of professors increased by 92% and that of students by 78%, while the number of executive/administrative staff jumped by 164% and that of other professionals by over 450%. This explosion of what Delucchi et al. (2021) provocatively call 'bullshit jobs' in higher education is exemplary of what Ginsberg (2011) calls the 'fall of the faculty', and the rise of other professions in higher education at the expense of academics (Waugh, 2003). As experts get ranked and activity gets audited, the middle line of staff managers is increased to manage professionals through mechanisms of rewards and sanctions, performance evaluations, accounting and more sophisticated HR systems. For example, over the last few decades, the majority of business schools have replaced the old promotion system through peer evaluation with a much more formal tenure process based on reaching specific performance targets in publications, teaching, and institutional commitment.

2.2. DISCIPLINING PROFESSIONAL EXPERTS THROUGH INDICATORS

In 'indicatocratized' organizations, professional experts lose autonomy, as power and resources are strongly redistributed through the disciplinary power of indicators. While indicators make

professional work commensurable (Espeland and Stevens, 1988), they provide a simplified representation of this work (Martineau, 2017). Through processes of categorization, rating and ranking (Townley, 1993), indicators tend to transform professionals into 'productive selves' for the organization (Miller & O'Leary, 1987; Hopper & Macintosh, 1993). In business schools, academic career evaluation has become predominantly based on productivity in A-journals, leaving aside critical parts of academic work such as the writing of books, the diffusion of research in media and investments in pedagogy. As professionals become increasingly managed by indicators, it is important to note that there is no process of de-skilling: on the contrary, their expertise tends to become more specific and technical as academics integrate this 'publish or perish' ethos and make their behaviour conform to the vision shaped by indicators. Overall, through the impact of indicators, professionals become managed rather than de-skilled.

2.3. A MORE MANAGERIAL AND LESS STRATEGIC APEX

Within indicatocratized organizations, the role of the strategic core becomes slightly different than in typical professional organizations. A central responsibility for top management is to manage the accountability and performance of the organization according to external demands. In the case of business schools, the role of the Dean has shifted from quiet scholarly leader to that of a political and economic leader (Gmelch et al., 1999). Deans are now being held responsible for the performance of the organization with respect to external audiences. A significant part of their internal role consists in stressing the importance of external authorities, organizing reporting and improving operational and financial performance. This translates into growth targets in terms of volume and revenues, which themselves partly result from the growth in administrative staff and structures and the associated cost of increased bureaucracy (Fee et al., 2005). While the managerial role of the organizational apex grows, its strategic role tends to decrease. Because performance criteria and control mechanisms are shaped externally, business school managers have limited latitude and authority to define a unique strategy that

would depart significantly from competitors and other actors in the field. To a large extent, the strategic apex is controlled by the disciplinary power of indicators the same way the professionals are. In such a context, crafting a unique and differentiated strategy is inherently difficult and business school top management faces a paradoxical tension: on the one hand, the strategic apex has to formulate strategic plans in order to abide by the institutionalized myths and ceremonies inherent in top management positions (and also to fulfil expectations shaped by external authorities); but on the other hand, rankings and accreditations influence those strategic processes considerably, as the organization needs to stay within the boundaries of the field and stick to the performance models institutionalized by rankings.

3. THEORIZING THE RISE OF INDICATOCRACIES IN BUSINESS SCHOOLS

The rise of indicatocracies is partly counter-intuitive: it implies that professionals will surrender their power and autonomy, and 'willingly comply with managerialism' (Alvesson & Spicer, 2017). While many articles about the evolution of business schools focus on the downsides for academics, it is important to underline that indicatocracies also gain the support of professionals by creating and reframing opportunities. Within business schools, this is true for researchers who enjoy the direct benefits of indicatocracy. The generalization of research performance assessment based on journal quality lists and impact factor has created new incentives for researchers by increasing wages and decreasing teaching hours for high publishing faculty (Nkomo, 2009). It has also accelerated the diffusion of international academic performance criteria in countries where research was mostly national or traditionally less prevalent in business education (Adler & Harzing, 2009; Dubois & Walsh, 2017). Such normative and mimetic isomorphic forces lead to a bigger, more international and fluid job market for international academics. For lower publishing or non-publishing faculty, increased bureaucratization also contributes to creating new managerial positions, offering new opportunities for professors or researchers to step out of classic academic career pathways to

embrace a more managerial role within their organization. Accordingly, a recent quantitative study finds that higher-performing individuals in research are less likely to become associate deans in US business schools (Duyer et al., 2021).

Proposition 1: an indicatocracy gains the support of professionals by diversifying career paths for professionals and offering opportunities and recognition for all professionals.

Similarly, indicatocracies have to generate some appeal for the organizations in the field. As field-level change may be blocked by dominant organizations (Dacin, Goodstein & Scott, 2002), it is particularly important that external actors generate some appeal for high status organizations. In the business school field, external agencies tend to maintain and reproduce dominant status hierarchies, which are formalized rather than disrupted by rankings. Rankings are stable over time – especially for high status organizations (Morgeson & Nahrgang, 2008; Lozano, Borafull, & Waddock, 2020). By reproducing existing status hierarchies, external agencies secure the participation of dominant actors in the field and reinforce the credibility of rankings and accreditations for external audiences. Moreover, they generate incentives for lower status business schools, such as regional business schools, whose key motivation to join the indicatocracy is to signal their belonging to a group of elite international business schools (Wedlin, 2011). Through such processes, indicatocracies limit the risk they represent to high status organizations and offer them new opportunities by creating market and status opportunities for other institutions.

Proposition 2: an indicatocracy gains the support of dominant professional organizations in the field by reflecting and formalizing existing status hierarchies rather than disrupting them.

In addition to creating appeal through new opportunities, indicatocracies gain the support of professional organizations through mechanisms of openness and participation. Such strategies are developed particularly within accreditation bodies, which open their governance and operational processes to the field members they are meant to regulate. Audits are performed by business school professionals, and auditing bodies such as EFMD present themselves as 'membership driven organizations with 900+ members', 'dedicated to management development' (EFMD website). Opening the governance structure, decision-making processes and operational mechanisms to field members aligns the organization with the professional values of community-based regulation. To a lesser extent, the media which produce rankings also follow such strategies. To legitimate their rankings, some media involve field members in defining the criteria. For instance, when updating its journal list in 2021, the FT added nine new journals, based on a vote by the deans of 140 business schools.[1]

> *Proposition 3: an indicatocracy gains the support of professional organizations in the field by making the indicators it uses public and open and by involving such organizations in the design and evolution of these indicators.*

A fourth mechanism facilitates the spread of indicatocracies: external agencies are likely to tone-down or conceal the potential constraints and harmful effects they may represent. Different strategies may be used to create some leeway in the application of rules. One example is to tolerate or facilitate organizational decoupling, by disconnecting audits and quality management structures from actual practices (Rasche & Gilbert, 2015), thus making it possible for professionals and organizations to game the system and turn it to their advantage (Alvesson & Spicer, 2017; Hall & Martin, 2019). Another example is to rely on standards and accreditations inspired by total quality management models, requiring formal procedures and

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[1] https://www.ft.com/content/3405a512-5cbb-11e1-8f1f-00144feabdc0

quality frameworks rather than actual performance achievements. Rankings differ from accreditations as they tend to impose externally defined performance models and are more oriented towards metrics and measurable outcomes. However, organizations may answer the ranking surveys with heterogeneous and unreliable data (Bachrach et al., 2017; Rindova et al., 2018), or enjoy some leeway owing to the diversity of rankings and ranking categories. In the business school field, the diversity of standards and rankings makes it possible for schools to select rankings according to their own strengths, specificities and strategic objectives (Espeland & Sauder 2016; Luca & Smith, 2015). And as Wedlin shows, the 'template [created by rankings and standards] is ambiguous enough to encompass a wide set of organizational profiles and values of organizations, and it allows for differences between organizations to persist' (2007, p. 36).

> *Proposition 4: an indicatocracy gains the support of professional organizations and professionals by allowing them some leeway, which limits the disciplining effects of the indicatocracy on professional bureaucracies.*

All the mechanisms of diffusion identified above are likely to be influenced by temporal dynamics and by the level of legitimacy and institutionalization achieved by external agencies. These mechanisms appear particularly critical for external agencies to gain the consent of professionals and organizations during the early development stages of the indicatocracy. Using the aforementioned mechanisms of diffusion creates a base of supporters, committed to the cause of indicators and who tend to use and promote them. Once such a base has been acquired, indicators become institutionalized and enjoy network externalities; their power, legitimacy and perceived value is tightly correlated with the number of organizations using them (Katz & Shapiro, 1985). Over time, indicators may enter into competition with each other, with some of them gradually becoming 'rule like' and less debatable (e.g. 'an A is an A'). Similarly, it

becomes difficult for an organization to eschew rankings because of the increased reputational risks and costs. When such levels of institutionalization are reached, tolerance for decoupling may be reduced and external agencies may gradually become more prescriptive.

> *Proposition 5: tolerance for decoupling is stronger during the emergence stage of an indicatocracy, helping it to build a support base of actors. As the indicatocracy spreads and becomes institutionalized, external agencies are likely to become less tolerant of decoupling and more prescriptive.*

4. THEORIZING COMPETITION AND PROFESSIONAL LIFE IN INDICATOCRACIES

Indicatocracies have various effects at the institutional, organizational and individual levels of analysis. At the field level of analysis, indicatocracies tend, by nature, to create strong isomorphic forces towards homogeneity and comparability. Rankings and accreditations frame competition around a limited set of institutionally defined criteria on which organizations must compete. While they allow some degree of variance between organizations, which can stress some criteria more than others (e.g. academic vs. business oriented schools), they use a decontextualized template of performance based on a limited set of indicators and variables. In the case of business school rankings, having an MBA programme and having research published in well-ranked international journals are common to all business schools that take part in rankings (Wedlin, 2007, 2011). Rankings create and convey a performance template based on employability, international orientation, customer satisfaction and academic excellence (Wedlin, 2007, 2011). This template has been compared to an 'iron cage', as it forces business schools to 'follow similar curricula and strategic approaches' (Rindova et al., 2018). In the literature on innovation and product design, this would be analysed as a 'dominant

design', i.e. a product or set of features 'that competitors and innovators must adhere to if they hope to command significant market following.' (Utterback, 1996, p. 24). As the literature in innovation management has shown, a dominant design tends to become self-reinforcing over time, through continuous R&D investment, economies of scale, investment in dedicated expertise, and normative dynamics.

> *Proposition 6: indicatocracies frame competition around a common dominant*
>
> *organizational design defined by rankings.*

Once a dominant design is stabilized, innovation typically focuses on process improvement to enhance the established functions of the product or service, satisfy existing stakeholders, and facilitate economies of scale and growth. For all these reasons, the stabilization of a dominant design makes it harder for incumbent organizations to initiate or manage more disruptive types of innovation (Christensen, 1997). An example concerns the evolution of academic research. In spite of a quantitative rise in the total number of articles published, different voices point to limited progress in organization theory, where evolution has become mostly incremental, and complain about a lack of disciplinary renewal in the field (Davis, 2010, 2015). Indicatocracy makes it difficult to address complex systemic problems involving qualitative phenomena and multidisciplinary perspectives, such as organization design (Greenwood & Miller, 2010) or new systemic and multidisciplinary topics such as climate change, risks of ecological collapse or the anthropocene (Nyberg & Wright, 2022). On such topics, innovations are likely to emerge outside the traditional boundaries of business schools (such as the Schumacher college in Britain or the Campus de la Transition in France) as traditional business schools may be ill-equipped to address such topics (Parker, 2018).

Proposition 7: indicatocracies inhibit radical innovation within their constituent professional organizations, thus creating strategic opportunities for disruptive innovations from organizations outside the field.

The development of indicatocracies also has a significant impact on power dynamics in business schools. Indicatocracies reshape sources of uncertainty to favour the academics who master the application of rules inside the business school and those who manage relationships with the institutional environment (Crozier, 1964). The indicatocracy empowers the academics and business schools which can best perform according to external performance standards, or who are in a position to influence external demands or translate them into internal procedures. This power shift results in an increased role for deans and managers, which constitutes one of the clear manifestations of the managerialization of business schools (Fee et al., 2005; Brown et al., 2019). Overall, power has shifted to the institutional level and is held by external agencies which decide on indicators and their evolution. This leads to the development of several collective strategies across business schools to influence the evolution of indicators at the institutional level. A recent illustration concerns how including topics related to sustainability or responsible management in the curricula required action at the institutional level calling for a revision of ranking criteria (Pitt-Watson & Quigley, 2019). In their report on "rankings for the 21st century", these authors called for a reorientation of rankings to focus on content related to Sustainable Development Goals and to reduce the weight of salary increases as a measure of performance. Different academic voices are calling for a change in the indicators used by ranking agencies at the institutional level (Ramani et al., 2022).

Proposition 8: indicatocracies reframe internal power dynamics among professionals within constituent professional organizations and shift the arena of strategic change and innovation to the institutional level.

The intensification of competition around the dominant design of rankings and accreditations has different effects on current business school organization. First, it leads to increased HR specialization within a school's faculty, for example by separating teaching and research faculty (Bothello & Roulet, 2019). This separation creates a research-teaching gap, complexifying the transfer of knowledge and the relevance of research for their courses (Burke & Rau, 2010). On the research side, recent decades have seen significant changes in researcher recruitment profiles and networks, especially in countries without a strong tradition in international publications (Dubois & Walsh, 2017). Most business schools have experienced an increase in individual academic productivity targets in order to remain on top of the rankings and perform according to national or international rankings (Feldman & Sandoval, 2018). This has led to an intensification of the 'publish or perish' mantra, creating a 'red queen effect', which 'describes competitive rivalry in which firms [and individuals] must increase their investment in order to maintain their existing market position while at the same time failing to earn returns that are commensurate with higher investments' (Lampel & Shamsie, 2005, p. 4). These increasing pressures are cascaded down on academics, resulting in several questionable behaviours to stay ahead of the international publication game. Beyond the rise in cases involving research misconduct (Hall & Martin, 2019), several articles have documented tendencies to create small theoretical niches to survive in the academic world (Mehrpouya & Willmott, 2018); to overstate 'theoretical contributions' to publish in the best journals (Tourish, 2020); or to market and promote 'fast-food research' (Marinetto, 2018) to increase their number of publications.

Proposition 9: indicatocracies create a 'red queen effect' among competing professional organizations and among the professional workers they employ.

A large number of papers have suggested that indicatocracy creates strong tensions in professional identities, causing a loss of meaning for business school members. Empirical studies of deans of business schools report that this situation causes individuals to lose their academic identity, creates strong pressure on their researcher identity, but also on their integrity and equanimity (Brown et al., 2021). Likewise, academic identities are being challenged for researchers: 'irrespective of seniority in the field, scholars simultaneously experience both power and powerlessness as a result of journal ranking processes', as journal rankings tend to solidify disciplinary status hierarchies within the field and to create uncertainties and fragility regarding professional futures (Anderson et al., 2022, p. 89). This anxiety is aggravated by a perception of arbitrariness and volatility of criteria which run counter to a fair and relevant evaluation (Adler & Harzing, 2009). Relatedly, many academics are questioning the very meaning or lost purpose of academic research in management, which has become more demanding and more 'bullshit' in the meantime, with significant effects at the individual level. Bothello and Roulet (2019) point to the spread of an 'imposter syndrome' among academics, in which qualified professionals doubt their personal ability to take on a more demanding academic job in an uncertain field of knowledge, creating mixed feelings of vulnerability and narcissism. The increasing bureaucratization, rising administrative pressures, combined with a feeling of a loss of meaning create a violent conflict with professional values and a perception of hopelessness (Flemming, 2021) where functional stupidity (Alvesson & Spicer, 2012) becomes pervasive among academics. This perception of stupidity and powerlessness is all the more violent as everyone is aware of the multiple drawbacks of the system while knowing full well that it is impossible to change it.

Proposition 10: indicatocracies lead to functional stupidity and a loss of meaning for professionals.

CONCLUSION: CONTRIBUTIONS AND RESEARCH AVENUES

Many researchers have documented the transformations experienced by business schools in recent decades. While such research tends to challenge the traditional view of business schools as professional organizations, few works have proposed a formal conceptualization of the organizational form they have adopted. By adopting an organizational design perspective and introducing the concept of indicatocracy, we wish to integrate various transformations: the ascendancy of a managerial logic over a professional logic, the increased role of deans, the critical role of accreditations and rankings, the commodification of research, the reinforcement of institutional dynamics, etc. With the concept of indicatocracy, we wish to go beyond notions such as 'Managed Professional Businesses' (Cooper, Hinings, Greenwood, & Brown, 1996; Noordegraaf, 2015) or 'Neo-PSFs' (von Nordenflycht, 2010). We suggest that indicatocracies represent a change in the nature of business schools, with profound implications for professional identities and for internal and external rules of the game. Additionally, we wish to stress the decisive role played by external indicators on the conduct of professional organizations (see Table 1).

Table 1: ideal-types of professional bureaucracy and indicatocracy

	PROFESSIONAL BUREAUCRACY	INDICATOCRACY

KEY UNIT OF ANALYSIS	Organization and profession	Organizational field
OVERARCHING PRINCIPLE	Decentralizing and expertise	Decontextualizing and comparability
CENTRAL COORDINATION MECHANISM	Standardization of skills, professional culture and norms	Assurance- or performance-based indicators
ROLE OF TECHNOSTRUCTURE	Limited	Large internal technostructure to control organizational processes and professionals
PROFESSIONAL AUTONOMY	Autonomous and powerful professionals	Professionals disciplined by indicators
STRATEGY	Central role of strategic apex	Central role of external actors (rankings and accreditations)

Our model highlights several research avenues. Firstly, the concept of indicatocracy points to the central importance of professionals other than academics within business schools, such as managers and staff who have filled the ranks of the technostructure and who play a central role in the development and maintenance of the indicatocracy. While academics have predominantly focused on how the indicatocracy has transformed their own academic work, these other professionals deserve more consideration: research should explore their identity, logics of action and tensions. One research avenue would be to analyse in greater depth the transformations in the function of business school dean (e.g. Fee et al., 2005; Brown et al., 2021), the dean's office, or more broadly the organization and strategic decision-making processes of the strategic apex. Secondly, the indicatocracy highlights the fundamental role played by external agencies which define external indicators that shape the business school. While studies on accreditations (e.g. Durand & McGuire, 2005; Trapnell, 2007) and rankings (e.g. Devinney et al., 2008; Iacobucci, 2013) already exist, one challenge is to open the black

box of such entities and put these organizations at the centre of the study, to understand how they operate from the inside, how they are being governed, how ranking and accreditation schemes are developed, how ranking organizations compete with each other, and how they manage the love / hate relationship with the schools they interact with (Bradshaw, 2007).

While we have based our analysis on the evolution of business schools, an important perspective to explore would be how indicatocracy spreads in different professional and institutional contexts, such as universities and hospitals. Like business schools, hospitals have experienced reshaping through managerialism as a result of New Public Management (Carvalho & Santiago, 2016). This transformation appears to have followed a different process than business schools, being primarily driven by public authorities and external regulatory agencies in an effort to rationalize funding and increase accountability and managerial control over hospitals (Harrison & Smith, 2003). Mirroring what has happened to professors in universities and business schools, this process has led to similar effects on work conditions and professional identities: studies report the 'taylorization' of their activity (Hartzband & Groopman, 2016), the emergence of 'bureaucratized professionals' (Lega & Di Pietro, 2005) and the reframing of some doctors' role as 'organizational leaders' (Baker & Denis, 2011). In both cases, indicatocracies are criticized (and the critique is not new, as our article shows) but are implemented nevertheless. Professionals contest and lament the rise of indicatocracy, but they still adopt and espouse its logic.

As indicatocracies profoundly reshape professional fields, more attention should be paid to understanding the dialectic and political processes of diffusion and the effects that indicatocracies generate across different contexts. In the end, as the indicatocracy seems to constitute an 'iron cage' with strong isomorphic powers to reshape organizations and professional work (DiMaggio & Powell, 1983), it is important to study how professionals may individually or collectively resist, accommodate or contest the emergence of indicatocracy, or

which strategies they may adopt to reclaim control over their field. And mirroring these strategies, it is equally important to study how indicatocracies shield against, resist or absorb professional and social criticism to ensure their continued diffusion and increased control over field dynamics.

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