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Caught Between Two Clocks: Rethinking Ambitemporality in the Context of Institutional Logic Conflicts and Digital Transformation

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Abstract

Purpose: This paper develops a theoretical framework for understanding ambitemporality in the context of institutional logic conflicts during digital transformation. It argues that ambitemporality — the capacity of organisations to accommodate contradictory temporal orientations — does not arise solely from market pressures, as existing theory suggests, but is fundamentally shaped by the institutional logics that competing organisational actors carry, and by the temporal impositions embedded in digital technologies. *Design/Methodology/Approach:* Drawing on institutional logics theory (Thornton et al., 2012), temporal structuring theory (Orlikowski and Yates, 2002; Barad, 2007; Braidotti, 2013; Latour, 2005), and the ambitemporality concept (Reinecke and Ansari, 2015), the paper develops a theoretical framework through systematic conceptual analysis and synthesis of existing literatures. The framework is illustrated through reference to the non-western public sector context of Saudi Arabia's Vision 2030 digital transformation program. *Findings:* The paper proposes that ambitemporality in digital transformation contexts is produced through three mechanisms: institutional logic conflicts that encode competing temporal orientations; technology deployment that materially instantiates objective temporality; and cultural context that mediates how temporal conflicts are experienced and managed. Five theoretical propositions are developed to guide future empirical research. *Originality/Value:* This paper makes three contributions. First, it extends the concept of ambitemporality beyond market contexts to institutional logic conflict settings. Second, it theorises digital technology as a temporal imposition mechanism rather than a neutral operational tool. Third, it introduces cultural context as a moderating variable in ambitemporality theory, with particular attention to non-western settings where subjective temporality may be institutionally dominant.

Keywords: ambitemporality, institutional logics, digital transformation, temporality, public sector, posthumanism, human-technology relations, agential realism, non-human agency, state logic, market logic, organisational change.

Introduction

Digital transformation programs do not merely restructure organisational processes and service delivery mechanisms — they impose new ways of organising time. When a government organisation adopts project management software, KPI dashboards, and Gregorian calendar-aligned reporting cycles, it is not simply acquiring new tools; it is being asked to enact a fundamentally different temporal order, one that may be deeply incompatible with the temporal orientations embedded in its institutional logic and cultural context. This temporal dimension of digital transformation has received remarkably little theoretical attention, despite its practical significance for the success or failure of transformation initiatives worldwide.

This study engages with a concern that is central to posthumanist and science and technology studies (STS) scholarship: the ways in which technological artefacts are not merely tools that humans use, but active participants in the constitution of human experience, including the

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experience of time (Haraway, 1991; Latour, 2005; Barad, 2007). From a posthumanist perspective, the boundaries between human agency and technological structure are understood as fluid and co-constitutive rather than fixed and hierarchical (Hayles, 1999; Braidotti, 2013). Digital technologies, in this view, do not simply accelerate or organise human temporal experience — they fundamentally reshape what it means to experience time as an organisational actor, by encoding particular temporal rationalities into material systems that then act back upon the humans who use them. The concept of institutional ambitemporality developed in this paper engages with this posthumanist insight by demonstrating how digital technologies, as carriers of objective temporality, do not merely support human organisational activities but actively displace existing temporal cultures and impose new ones, reshaping the institutional identities and practices of the human actors who inhabit them.

The concept of ambitemporality, introduced by Reinecke and Ansari (2015), offers a promising starting point for theorising how organisations manage contradictory temporal orientations. Reinecke and Ansari demonstrate that organisations operating across institutional contexts — particularly those bridging market and development logics — must develop the capacity to simultaneously enact short-term, clock-based temporal orientations and long-term, event-based ones. Their concept of ambitemporality captures this capacity as a form of temporal brokerage, enabling organisations to navigate temporal contradictions without resolving them.

However, the existing ambitemporality framework has two significant limitations that restrict its applicability to the context of government digital transformation. First, it was developed in a commercial context and has not been extended to institutional settings where the source of temporal conflict is the coexistence of competing institutional logics within a single organisation. Second, it treats cultural context as a background variable rather than as an active shaper of how temporal conflicts are produced, experienced, and managed — a limitation that becomes particularly significant in non-western settings where subjective temporal orientations may be institutionally dominant rather than merely individually preferred.

This paper addresses these limitations by developing a theoretical framework for understanding ambitemporality in the context of institutional logic conflicts during digital transformation. We argue that ambitemporality in this context is not merely a capacity that organisations either possess or lack; it is a dynamic condition that is actively produced through the interaction of three mechanisms: the institutional logics that competing organisational actors carry; the temporal impositions embedded in digital technologies deployed as part of transformation programs; and the cultural context that mediates how temporal conflicts are experienced, resisted, and negotiated.

Three research questions guide the theoretical development:

RQ1: How do institutional logic conflicts produce ambitemporality in organisations undergoing digital transformation?

RQ2: How do digital technologies function as mechanisms of temporal imposition in institutional logic conflict settings?

RQ3: How does cultural context moderate the production and management of ambitemporality in digital transformation?

The paper makes three principal theoretical contributions. First, it extends the concept of ambitemporality beyond its original market context to institutional logic conflict settings. Second, it theorises digital technology as a temporal imposition mechanism — a carrier of objective temporality that materially instantiates market logic temporal structures in state logic environments. Third, it introduces cultural context as a moderating variable in ambitemporality theory, with particular attention to non-western settings characterised by institutionally dominant subjective temporality. The paper proceeds as follows: Section 2 reviews and critically evaluates the existing ambitemporality framework. Section 3 examines the relationship between institutional logics and temporal orientation. Section 4 theorises digital transformation as a mechanism of temporal imposition. Section 5 presents the proposed theoretical framework and five research propositions. Section 6 discusses theoretical and practical implications, and Section 7 concludes.

2. Ambitemporality: The Original Concept and Its Limitations

2.1 The Concept of Ambitemporality

The concept of ambitemporality was introduced by Reinecke and Ansari (2015) in their study of how multinational corporations navigate temporal contradictions when operating across market and development institutional contexts. Drawing on the distinction between objective temporality — clock-based, linear, and quantifiable — and subjective temporality — event-based, socially constructed, and contextually embedded (Orlikowski and Yates, 2002; Bluedorn and Denhardt, 1988) — Reinecke and Ansari argue that organisations operating across these temporal registers must develop what they term ambitemporality: the capacity to simultaneously enact contradictory temporal orientations without resolving the contradiction between them.

The concept builds on a rich tradition of organisational temporality research. Orlikowski and Yates (2002) demonstrate that organisations do not merely operate within time but actively constitute their temporal structures through repeated practices — what they term temporal structuring. Adam (1990) shows that different social contexts generate different temporal orders, each with its own logic of sequencing, pacing, and deadline. Bluedorn (2002) identifies polychronicity — the preference for engaging in multiple activities simultaneously rather than sequentially — as a key dimension of organisational temporal culture. Reinecke and Ansari (2015) synthesise these insights into the ambitemporality concept by showing that some organisational actors — temporal brokers — develop the capacity to move between temporal registers strategically, using each register selectively depending on the audience, context, and goal at hand.

Reinecke and Ansari's (2015) empirical analysis demonstrates that temporal brokerage is not simply a cognitive skill but a socially embedded practice that requires actors to maintain credibility within multiple temporal communities simultaneously. Temporal brokers used short-term, objective temporality when communicating with market-oriented stakeholders — reporting quarterly results, meeting contractual deadlines, and demonstrating measurable progress — while simultaneously using long-term, subjective temporality when engaging with development-oriented stakeholders. This dual performance of temporality, Reinecke and Ansari argue, is what enables organisations to sustain legitimacy across incompatible institutional contexts.

2.2 Theoretical Contributions and Scope of the Original Framework

The ambitemporality concept represents a significant advance over prior organisational

temporality research in two respects. First, it moves beyond the descriptive identification of temporal pluralism in organisations toward a dynamic analysis of how organisations actively manage temporal contradictions through skilled social practice. Second, it connects organisational temporality to the broader institutional context, showing that temporal orientations are not merely individual preferences or organisational habits but are embedded in the institutional logics of the contexts in which organisations operate.

2.3 Limitations of the Original Framework

Notwithstanding these contributions, the original ambitemporality framework has three important limitations. First, it was developed in a commercial context and does not account for the distinct dynamics of institutional logic conflicts within public sector organisations. In government digital transformation contexts, temporal contradiction arises not from the organisation's positioning across two external institutional environments but from the deliberate introduction of a new institutional logic — market logic — into an organisation historically governed by state logic. This is an endogenous rather than exogenous source of temporal conflict, one that is structurally embedded in the organisation's governance architecture and actively contested by different categories of organisational actors.

Second, the framework treats technology as a background enabler rather than as an active mechanism of temporal imposition. In government digital transformation contexts, digital technologies are central to the production of ambitemporality precisely because they materialise and enforce the objective temporality of market logic through performance dashboards, project management software, and procurement systems. These tools do not merely support objective temporality — they instantiate it materially, making it visible, measurable, and enforceable in ways that subjective temporality cannot contest on equal terms.

Third, the framework has been developed exclusively in western cultural contexts and does not account for the role of non-western temporal institutions. In cultural contexts — such as Saudi Arabia and other Middle Eastern settings — where subjective temporality is institutionally dominant and embedded in official calendar systems such as the Hijri lunar calendar, the relationship between temporal orientations and institutional legitimacy is reversed, and the dynamics of ambitemporality production and management are correspondingly different. These three limitations motivate the theoretical framework developed in this paper.

3. Institutional Logics and Temporal Orientation

3.1 Time as a Constitutive Element of Institutional Logics

The institutional logics perspective has long recognised time as a constitutive element of institutional orders, yet has rarely foregrounded it as an object of theoretical analysis in its own right. Thornton and Ocasio's (1999) foundational definition of institutional logics explicitly includes the organisation of time and space as a dimension of how logics shape social reality, but subsequent empirical and theoretical work has tended to treat temporal structure as a background condition rather than as an active site of logic enactment and conflict. This neglect is consequential: if institutional logics prescribe not only what organisations should do and why, but also when and at what pace, then the temporal dimension of logic conflict is likely to be both theoretically significant and practically consequential.

The relationship between institutional logics and temporal orientation can be understood through

two complementary theoretical lenses. The first, drawn from the sociology of time, distinguishes between different temporal cultures — the shared understandings, practices, and artefacts through which communities organise their relationship to time (Zerubavel, 1981; Adam, 1990; Hall, 1959). The second, drawn from institutional logics theory, identifies how these temporal cultures become embedded in the organising principles, accountability structures, and legitimacy criteria of institutional orders (Thornton et al., 2012). Together, these lenses suggest that each institutional logic carries a distinctive temporal culture that is deeply constitutive of its identity and prescriptions for legitimate action.

3.2 The Temporal Culture of State Logic

The state logic is characterised by a governance orientation that prioritises stability, continuity, and accountability to the sovereign (Thornton et al., 2012; McMullin and Skelcher, 2018). These values are reflected in a distinctive temporal culture that emphasises long-term orientation, continuity of process, and the subordination of time to social and relational rhythms. State logic organisations tend to operate according to subjective temporality — an event-based temporal orientation in which activities are structured around socially meaningful occurrences rather than fixed clock intervals. Work is organised around the rhythms of bureaucratic process — the submission and approval of documents, the convening of committees, the arrival of senior officials — rather than around project milestones or performance reporting cycles. Additionally, state logic organisations exhibit a strong past orientation: legitimacy is derived from established precedent, and changes to procedures require reference to prior authorisations rather than to future performance targets.

In non-western contexts, state logic temporal culture may be materially instantiated in official calendar systems that embody subjective temporal orientations — most notably, in Saudi Arabia, the Hijri lunar calendar, whose month lengths are not fixed in advance and whose scheduling logic prioritises religious and social events over clock-based precision. This temporal culture is not merely a practical inconvenience for organisations undergoing digital transformation; it is a deeply embedded institutional resource through which state logic actors derive identity, legitimacy, and meaning.

3.3 The Temporal Culture of Market Logic

The market logic, by contrast, is characterised by a governance orientation that prioritises efficiency, competitive performance, and accountability to measurable outcomes (Besharov and Smith, 2014; Thornton et al., 2012). These values generate a temporal culture fundamentally different from that of state logic. Market logic organisations operate according to objective temporality — a clock-based temporal orientation in which time is conceived as a scarce, quantifiable resource to be allocated, measured, and optimised. Work is structured around precise deadlines, project milestones, and performance reporting cycles that divide the organisational year into fixed, measurable units. Market logic organisations exhibit a strong future orientation: legitimacy is derived from the achievement of forward-looking targets rather than from adherence to past precedent. Market logic temporal culture is materially instantiated in the Gregorian calendar and in a suite of digital tools — project management software, KPI dashboards, performance scorecards — that enforce objective temporality through the visibility and measurability they impose on organisational activity.

3.4 Temporal Conflict as a Dimension of Institutional Complexity

The foregoing analysis suggests that when organisations face institutional complexity — the coexistence of competing institutional logics (Greenwood et al., 2011) — they face not only a conflict of values and governance structures but also a conflict of temporal cultures. We argue that temporal conflict is not merely a secondary symptom of institutional complexity but is one of its primary mechanisms of production and reproduction. Temporal conflicts are particularly visible and practically consequential because they manifest in concrete, daily organisational practices — the scheduling of meetings, the setting of deadlines, the reporting of performance — that are experienced by all organisational members. Unlike conflicts over mission or identity, which may remain relatively abstract, temporal conflicts permeate the entire organisational fabric, making the institutional logic conflict tangible and unavoidable for every actor in the organisation.

This argument has a further implication: temporal artefacts — calendars, schedules, dashboards, and project management tools — are not merely practical devices but institutional artefacts that materialise and enforce particular temporal cultures and, through them, particular institutional logics. The choice of calendar system, the design of reporting cycles, and the deployment of performance monitoring technologies are not politically neutral decisions; they are acts of institutional logic enactment that have consequences for the distribution of power, legitimacy, and identity within the organisation.

4. Digital Transformation as a Mechanism of Temporal Imposition

4.1 Technology and Temporal Structuring

The relationship between technology and organisational temporality has been examined through the concept of temporal structuring — the process through which organisations actively constitute their temporal structures through repeated social practices involving material artefacts (Orlikowski and Yates, 2002; Barley, 1988; Yoo et al., 2012). This perspective moves beyond earlier views of technology as a neutral tool toward an understanding of technology as an active participant in the constitution of organisational life — including its temporal dimensions. Orlikowski and Yates (2002) demonstrate that temporal structures in organisations are not given in advance but are enacted and reproduced through the repeated use of time-space technologies — material artefacts that shape how organisational members experience, measure, and coordinate time. Calendars, schedules, project management systems, and performance reporting tools are all time-space technologies in this sense: they do not merely record or display time but actively structure it, making certain temporal orientations visible and actionable while rendering others invisible or illegitimate.

4.2 Digital Technologies as Carriers of Objective Temporality

Building on the temporal structuring perspective, we argue that digital technologies deployed in government transformation programs are not temporally neutral but are carriers of objective temporality — they materialise, enforce, and reproduce the clock-based, deadline-driven temporal culture of market logic in organisational settings that may be governed by fundamentally different temporal orientations. This argument rests on three observations.

First, the design assumptions embedded in contemporary digital project management and performance monitoring tools reflect the objective temporality of the market logic environments in which they were developed. Project management software is built around the assumption that

work can be decomposed into discrete, time-bounded tasks with fixed start and end dates, measurable outputs, and quantifiable resource requirements. When such tools are deployed in state logic environments characterised by continuous work modes, flexible scheduling, and event-based organising, they impose alien temporal structures that may be experienced by organisational members not as improvements in efficiency but as institutional displacements.

This argument resonates with posthumanist accounts of human-technology relations in important ways. From a Latourian perspective (Latour, 2005), digital project management and monitoring systems are not passive intermediaries that transmit human intentions but mediators that transform, translate, and redirect the actions of organisational members. A dashboard that marks a milestone ‘overdue’ does not merely report a fact; it enrolls the reporting employee in a disciplinary temporal regime, redistributing agency between human actors and technological artefacts. Barad’s (2007) concept of agential realism extends this point: temporal norms are not pre-given features of organisations that digital tools merely measure, but are produced through the intra-action of human and non-human actors in specific material-discursive practices. When a government employee logs into a KPI dashboard, the dashboard does not simply read off a pre-existing temporal reality — it participates in the materialisation of a particular kind of organisational time, cutting between what counts as ‘on schedule’ and what does not.

Second, digital monitoring and reporting technologies — performance dashboards, KPI scorecards, and automated reporting systems — enforce objective temporality through the visibility and measurability they impose on organisational activity. By making individual and team performance visible in real time against precisely defined milestone schedules, these technologies eliminate the interpretive slack that subjective temporality provides — the capacity to manage accountability through relational negotiation and the flexible definition of adequate performance. In this sense, monitoring technologies do not merely measure objective temporality; they produce it.

Third, digital communication and collaboration tools restructure the social rhythms through which organisational members coordinate their activities. By imposing the temporal disciplines of the Gregorian calendar, fixed meeting schedules, and synchronous communication norms, these tools gradually displace the subjective temporal culture of event-based coordination and relational scheduling that characterises state logic environments.

4.3 The Paradox of Temporal Imposition

The process of temporal imposition through digital technology deployment is characterised by an important paradox: the very features that make digital monitoring and project management tools effective from a market logic perspective — their precision, visibility, and enforceability — are the same features that make them most threatening and most resisted from a state logic perspective. State logic actors who resist performance dashboards and milestone-based reporting are not, in most cases, resisting technology per se; they are resisting the temporal imposition that these technologies enact and the institutional displacement that this imposition implies. The resistance is institutional rather than merely technical, and it is therefore unlikely to be adequately addressed through technical training, user experience improvements, or change management

communications that do not engage with the underlying institutional logic conflict.

4.4 Cultural Context as a Moderator of Temporal Imposition

The dynamics of temporal imposition are not uniform across organisational contexts but are moderated by the cultural context in which the organisation operates. Cultural context shapes temporal imposition in two principal ways. First, it determines the institutional strength of subjective temporality — the degree to which event-based temporal orientations are institutionally embedded in official systems, religious practices, and legitimate authority structures. In non-western contexts — particularly in Middle Eastern settings characterised by polychronic temporal culture and the institutional prominence of the Hijri calendar — subjective temporality is institutionally dominant and associated with the highest levels of political and religious authority. In such contexts, the temporal imposition enacted by digital transformation technologies is experienced not merely as an operational inconvenience but as a challenge to an institutionally sanctioned temporal order. Second, cultural context shapes the repertoire of resources that state logic actors can mobilise to resist or accommodate temporal imposition — including collective resistance strategies, hierarchical authority appeals, and relational network-based negotiation.

5. A Theoretical Framework for Institutional Ambitemporality

5.1 Overview of the Framework

Drawing on the theoretical analysis developed in Sections 2 through 4, we propose a framework for understanding what we term institutional ambitemporality — the condition of temporal contradiction that arises when organisations face institutional logic conflicts in which the competing logics carry fundamentally different temporal cultures, and in which digital technologies are deployed as mechanisms of temporal imposition that materialise and enforce one temporal culture at the expense of the other.

Institutional ambitemporality differs from the original ambitemporality concept (Reinecke and Ansari, 2015) in three fundamental respects. First, its source is not market pressure but institutional logic conflict — the structurally embedded coexistence of competing logics within a single organisation. Second, its production mechanism is not individual temporal brokerage but organisational-level processes through which competing temporal cultures are enacted, contested, and negotiated. Third, its management requires not the cultivation of individual temporal fluency but the development of collective organising capacities that accommodate the coexistence of competing temporal cultures without requiring either the elimination of one or the paralysis of the organisation.

Figure 1 presents the proposed framework. The left side depicts the three production mechanisms — institutional logic conflict, digital temporal imposition, and cultural context moderation — that converge to generate the central condition of institutional ambitemporality. The right side presents three organisational response modes — temporal decoupling, temporal translation, and temporal hybridisation — arranged along a vertical sustainability continuum. The lower panel summarises the five theoretical propositions connecting the framework's components.

Figure 1. Theoretical framework for institutional ambitemporality in digital transformation contexts

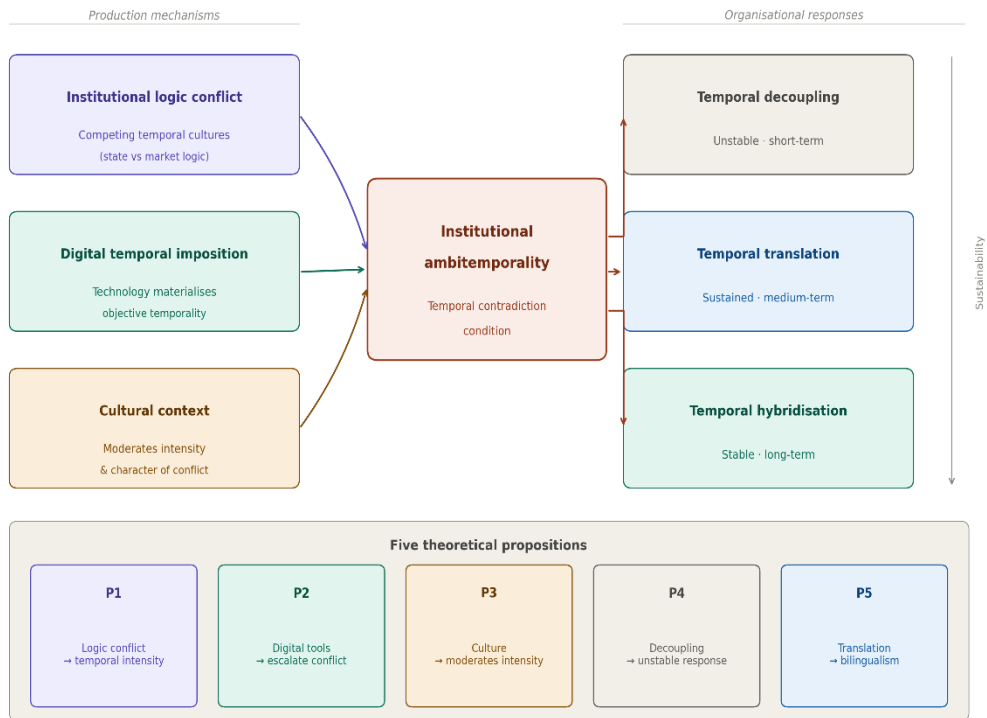


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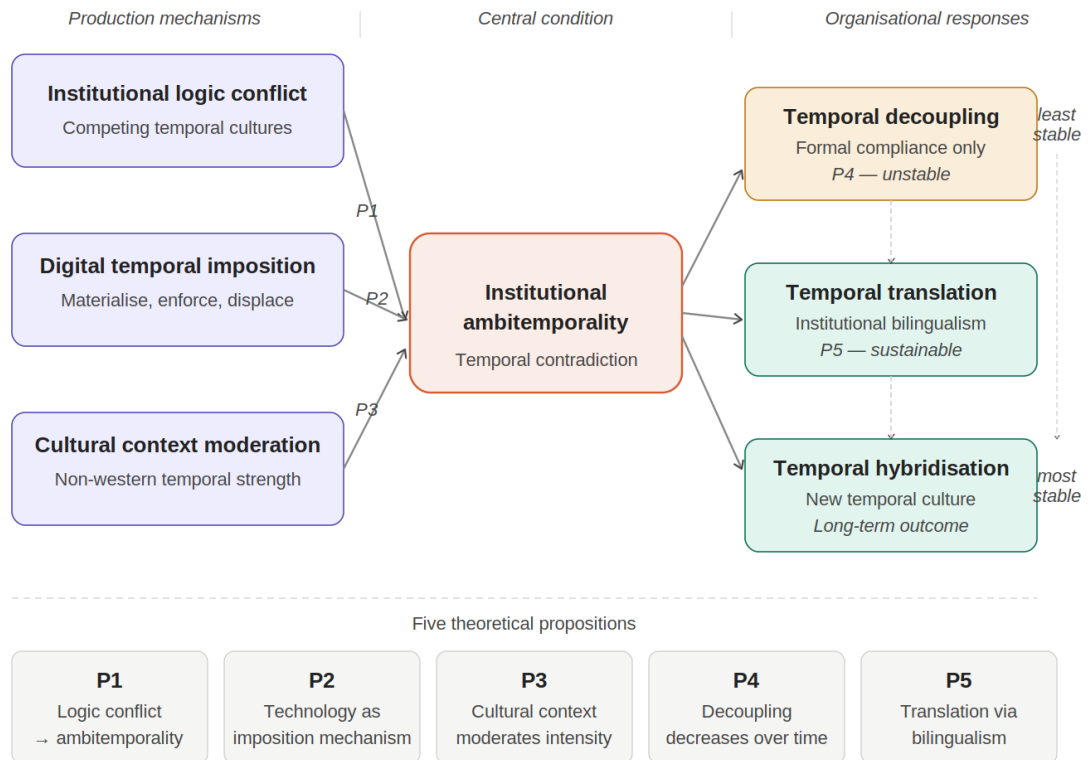


Figure 1. Theoretical framework for institutional ambitemporality in digital transformation contexts
Source: Author

Digital technologies as temporal imposition mechanisms — consistent with posthumanist accounts of non-human agency (Barad, 2007; Latour, 2005; Haraway, 1991)

Figure 1. Theoretical framework for institutional ambitemporality in digital transformation contexts

Note: Digital technologies as temporal imposition mechanisms — consistent with posthumanist accounts of non-human agency (Barad, 2007; Latour, 2005; Haraway, 1991).

5.2 Three Mechanisms of Institutional Ambitemporality Production

Mechanism 1: Institutional Logic Conflicts as Sources of Temporal Contradiction. The foundational mechanism through which institutional ambitemporality is produced is the coexistence of competing institutional logics that carry incompatible temporal cultures. When organisations face institutional complexity (Greenwood et al., 2011), they face not merely a conflict of values and governance structures but a conflict of temporal cultures that permeates the entire organisational fabric. This temporal conflict is simultaneously a cause and a consequence of the broader institutional logic conflict: it arises from the logic conflict and, in turn, deepens and reproduces it by making the incompatibility of the two logics tangible and unavoidable in daily practice. This leads to the first theoretical proposition:

Proposition 1: *Institutional logic conflicts produce ambitemporality when the competing logics carry fundamentally different temporal cultures. The intensity of institutional ambitemporality is positively associated with the degree of temporal incompatibility between the co-existing logics.*

Mechanism 2: Digital Technologies as Temporal Imposition Mechanisms. The second mechanism through which institutional ambitemporality is produced is the deployment of digital technologies that materialise and enforce the objective temporality of market logic in state logic environments. Digital temporal imposition operates through three distinct processes: materialisation — the rendering of objective temporality visible through dashboards and milestone schedules; enforcement — the creation of accountability mechanisms linking performance to precise temporal targets; and displacement — the gradual replacement of subjective temporal artefacts with objective temporal equivalents. This leads to the second theoretical proposition:

Proposition 2: *Digital technologies deployed in institutional logic conflict settings function as temporal imposition mechanisms that escalate institutional ambitemporality by materialising, enforcing, and displacing competing temporal cultures. The intensity of digital temporal imposition is positively associated with the monitoring and enforcement capabilities of the deployed technologies.*

The concept of digital technologies as temporal imposition mechanisms is theoretically consistent with, and enriched by, posthumanist accounts of technological agency. Haraway's (1991) insight that technological artefacts are not separable from the social relations they mediate is particularly relevant here: the temporal discipline encoded in project management software is not a neutral feature of the tool but a crystallisation of the market logic temporal culture from which it emerged. Braidotti's (2013) posthumanist ethics, which foregrounds the relational and distributed character of agency, further suggests that organisational actors who experience temporal imposition are not simply 'resisting technology' but navigating a field of competing agencies in which calendars, dashboards, cultural norms, and bureaucratic rhythms all exert force simultaneously.

Mechanism 3: Cultural Context as a Moderator. The third mechanism shaping the production of institutional ambitemporality is the cultural context in which the organisation operates. Cultural context moderates institutional ambitemporality by determining the institutional strength of subjective temporality and by shaping the repertoire of resources available for resisting or accommodating temporal imposition. This leads to the third theoretical proposition:

Proposition 3: *Cultural context moderates the intensity and character of institutional ambitemporality. Organisations operating in non-western cultural contexts characterised by institutionally dominant subjective temporality will experience higher levels of institutional ambitemporality when subjected to digital temporal imposition than organisations operating in western cultural contexts where objective temporality is already institutionally embedded.*

5.3 Three Organisational Responses to Institutional Ambitemporality

Response 1: Temporal Decoupling. Temporal decoupling occurs when organisations maintain the formal appearance of compliance with the temporally imposed market logic while preserving subjective temporality in the substantive practices of daily work. This response corresponds to Meyer and Rowan's (1977) concept of decoupling and is the most immediately accessible response to institutional ambitemporality. However, it is inherently unstable in digital transformation contexts, where monitoring technologies progressively reduce the organisational spaces in which substantive temporal practices can be shielded from visibility and enforcement.

Proposition 4: Temporal decoupling is the initial and most common organisational response to institutional ambitemporality, but its effectiveness decreases as the monitoring and enforcement capabilities of deployed digital technologies increase, creating pressure for either temporal translation or temporal hybridisation.

Response 2: Temporal Translation. Temporal translation occurs when institutional entrepreneurs develop the capacity to translate between temporal registers, drawing selectively on subjective temporality resources to manage resistance while maintaining the overall trajectory of objective temporality imposition. This response extends the temporal brokerage concept of Reinecke and Ansari (2015) from the individual to the organisational level. Temporal translation is more sustainable than decoupling, as it reduces the perceived threat of temporal imposition by demonstrating sensitivity to the incumbent temporal culture while maintaining the legitimacy and momentum of the transformation agenda.

Proposition 5: Temporal translation — the selective and strategic enactment of subjective temporality by market logic carriers to manage resistance from state logic actors — is a more sustainable organisational response to institutional ambitemporality than temporal decoupling, and is positively associated with the institutional bilingualism of change agents: their capacity to draw credibly on both temporal cultures in ways that are experienced as authentic rather than merely instrumental.

Response 3: Temporal Hybridisation. Temporal hybridisation is the long-term outcome of sustained institutional ambitemporality management, in which elements of objective and subjective temporality are integrated into a new organisational temporal culture that is neither purely market logic nor purely state logic. Temporal hybridisation does not require the elimination of either temporal culture but rather the development of new organisational practices, artefacts, and norms that accommodate both orientations within a restructured temporal framework. Understanding how temporal hybridisation emerges, stabilises, and evolves over time is a key agenda for future empirical research on institutional ambitemporality.

6. Discussion and Implications

6.1 Theoretical Contributions

The paper makes three principal theoretical contributions, each of which extends existing theory in a distinct direction.

First, it extends the concept of ambitemporality beyond its original market context to institutional logic conflict settings. By demonstrating that the source of temporal contradiction can be

endogenous — located in the structural coexistence of competing logics within a single organisation — rather than exogenous, the framework significantly broadens the concept's theoretical scope. This extension implies a reconceptualisation of the unit of analysis from the individual temporal broker to the organisational level, with corresponding implications for research design: studies of institutional ambitemporality require methods capable of capturing collective organising processes rather than merely individual temporal skills. The shift from an exogenous to an endogenous account of ambitemporality production also expands the range of organisational settings to which the concept applies, encompassing any organisation subjected to institutional complexity through externally imposed reform agendas — including universities, hospitals, non-governmental organisations, and cultural institutions.

Second, the theorisation of digital technology as a temporal imposition mechanism fills a significant gap in both the organisational temporality literature and the digital transformation literature. Existing research on technology and organisational temporality has examined how digital tools restructure temporal experience and enable new forms of temporal coordination (Orlikowski and Yates, 2002; Mazmanian et al., 2013; Yoo et al., 2012), but has not systematically theorised the institutional logic dimension of digital temporality. The concept of digital temporal imposition developed in this paper — and its three constituent processes of materialisation, enforcement, and displacement — provides a conceptual vocabulary for analysing how specific digital tools impose particular temporal cultures through their design features and accountability architectures. This conceptualisation has implications beyond the public sector digital transformation context, for any organisational context in which market logic digital tools are deployed in non-market logic environments.

Third, the introduction of cultural context as a moderating variable in ambitemporality theory responds to a significant limitation in the existing literature, which has been developed almost exclusively in western cultural settings where objective temporality is institutionally dominant. The identification of the institutional strength of subjective temporality and the cultural repertoire of temporal resistance as specific moderating mechanisms provides a starting point for theorising cross-cultural variation in ambitemporality dynamics and for designing comparative empirical research that can test and extend the propositions developed above. This contribution is particularly significant for IS and management research in non-western settings, where the western assumption of objective temporality dominance is likely to be empirically false.

6.2 Posthumanist Implications

The institutional ambitemporality framework contributes to posthumanist debates on human-technology relations in three respects.

First, the framework repositions digital technologies from instruments of human agency to co-producers of temporal reality. This move is consistent with Barad's (2007) agential realism, which refuses to treat technology as a passive mediator of pre-given social structures. In the framework developed here, performance dashboards, project management platforms, and automated reporting systems are not merely used by organisations — they actively constitute what counts as 'timely' behaviour, 'compliant' reporting, and 'efficient' governance. Temporal norms are not prior to these tools but are materialised through their deployment.

Second, the framework's attention to cultural context — specifically, the role of

the Hijri calendar and subjective temporality in non-western institutional settings — enriches posthumanist accounts by demonstrating that human-technology entanglements are not uniform across cultural contexts. Posthumanist scholarship has been criticised for assuming western technological contexts as its default (Braidotti, 2013); the present framework extends posthumanist temporal analysis to a context in which non-western temporal institutions materially shape how digital technologies are received, resisted, and adapted.

Third, the three organisational responses identified in the framework — temporal decoupling, temporal translation, and temporal hybridisation — can be read as forms of what Haraway (1991) calls ‘situated knowledge’: practical strategies through which actors navigate the competing demands of different material-semiotic arrangements. Temporal hybridisation in particular — the development of institutional structures that accommodate multiple temporal orientations — represents a posthumanist outcome in which the boundary between ‘traditional’ and ‘digital’ temporal regimes is neither preserved nor eliminated but renegotiated through practice.

6.3 Contributions to the Digital Transformation Literature

Beyond its contributions to ambitemporality theory, this paper makes a specific contribution to research on digital transformation in the public sector by placing temporal conflict at the centre of the analysis. Existing research has extensively documented the difficulties of implementing digital transformation in bureaucratic government environments (Heeks, 2003; Mergel et al., 2019; Plesner et al., 2018) and has identified a range of factors — leadership, governance, skills, culture — that influence transformation outcomes, without engaging with the temporal dimension of institutional dynamics. The institutional ambitemporality framework addresses this gap by offering a theoretically grounded explanation for the persistence of resistance to digital transformation even among employees who are broadly supportive of the reform agenda: this persistence is not primarily a function of individual resistance to change but of the structural incompatibility between the temporal cultures embedded in the incumbent institutional logic and those imposed by digital transformation technologies.

6.4 Practical Implications

The institutional ambitemporality framework carries four practical implications for practitioners responsible for designing and managing government digital transformation programs.

First, practitioners should systematically diagnose temporal conflict before deploying digital tools, assessing the degree to which the incumbent institutional logic is associated with subjective temporality and the extent to which proposed digital tools will impose incompatible temporal structures. This diagnostic step — absent from most digital transformation methodologies — can inform decisions about the sequencing and calibration of technology deployment, reducing the risk of generating intense temporal conflict that undermines transformation momentum.

Second, practitioners should design or select digital tools with temporal flexibility — tools that accommodate multiple temporal orientations rather than enforcing a single objective temporality. Project management tools that allow flexible milestone scheduling alongside fixed deadline reporting, or performance dashboards that display trend data over variable time horizons, can reduce the temporal displacement experienced by state logic actors while maintaining the

accountability functions that market logic requires.

Third, transformation team design should prioritise institutional bilingualism — recruiting individuals who have experience in both public sector and private sector environments and who understand the cultural dimensions of temporal conflict, rather than recruiting purely on the basis of market logic expertise.

Fourth, practitioners should invest in dedicated interventions at the sociocultural layer of temporal conflict — including structured dialogue between the two actor groups, explicit acknowledgement of the value of subjective temporality practices, and culturally sensitive approaches to performance accountability — rather than focusing exclusively on the strategic and technological dimensions of transformation management.

6.5 Limitations of the Theoretical Framework

As with any theoretical framework developed through conceptual analysis, the institutional ambitemporality framework is subject to several important limitations. First, it is developed primarily in relation to the specific context of government digital transformation in non-western public sector settings, and the generalisability of the propositions beyond this context is an empirical question that cannot be resolved through theoretical analysis alone. Second, the framework focuses on the production and management of institutional ambitemporality but does not fully account for the long-term outcomes of temporal hybridisation — longitudinal empirical research is needed to examine how hybrid temporal configurations develop and stabilise over time. Third, the framework does not fully account for the role of power in shaping institutional ambitemporality dynamics; future theoretical development should engage more directly with the power dimension, drawing on research on power and field dynamics (Battilana and Dorado, 2010; Garud et al., 2007) to examine how power differentials between logic carriers shape temporal conflict and accommodation processes.

7. Conclusions

This paper has developed a theoretical framework for understanding institutional ambitemporality — a concept that extends and reinterprets the original ambitemporality formulation of Reinecke and Ansari (2015) in the context of institutional logic conflicts and digital transformation. The framework addresses a significant gap in the existing literature by demonstrating that temporal contradiction in organisations is not merely a function of external institutional pressures but is actively produced through the structural coexistence of competing institutional logics that carry incompatible temporal cultures, amplified by digital technologies that materialise and enforce one temporal culture at the expense of the other, and moderated by the cultural context in which the organisation operates.

The paper's central theoretical argument is that when organisations face institutional complexity, they face not only a conflict of values, governance structures, and accountability criteria but a conflict of temporal cultures that digital transformation technologies escalate rather than resolve. This argument challenges the widespread assumption that digital tools are temporally neutral instruments, replacing it with a more theoretically adequate understanding of digital technologies as carriers of institutional temporal culture whose deployment has consequences for organisational logic configurations that go far beyond their intended operational functions.

7.1 Summary of Contributions

The paper makes three principal contributions. First, it extends ambitemporality theory from market contexts to institutional logic conflict settings, broadening the concept's scope and reconceptualising the unit of analysis from the individual temporal broker to the organisational level. Second, it theorises digital technology as a temporal imposition mechanism, providing a conceptual vocabulary — materialisation, enforcement, and displacement — for analysing how digital tools impose particular temporal cultures through their design features. Third, it introduces cultural context as a moderating variable, providing a starting point for cross-cultural comparative research on ambitemporality dynamics, with particular attention to non-western settings where objective temporality is not institutionally dominant.

7.2 A Research Agenda for Institutional Ambitemporality

The five theoretical propositions developed in this paper constitute a research agenda for empirical investigation of institutional ambitemporality. Four research directions are particularly promising. First, comparative empirical studies of institutional ambitemporality across cultural contexts would test the prediction that organisations in non-western settings experience higher levels of institutional ambitemporality under digital temporal imposition. Second, longitudinal studies of temporal hybridisation would examine how hybrid temporal configurations emerge and stabilise over time. Third, experimental or quasi-experimental studies of digital tool design and temporal flexibility would provide empirical evidence for the relationship between tool design, temporal imposition intensity, and transformation outcomes. Fourth, survey-based studies of institutional bilingualism and temporal translation capacity would test and operationalise the concept of temporal translation across large samples of government digital transformation programs.

7.3 Closing Remarks

The relationship between time and institutional change is one of the most fundamental yet least understood dimensions of organisational life. Every institutional logic carries within it a distinctive way of structuring time — a temporal culture that shapes how organisational members experience their work, understand their responsibilities, and relate to their colleagues and to the broader social and institutional contexts in which they operate. When institutional logics collide, their temporal cultures collide with them, generating forms of organisational contradiction that are simultaneously practical and deeply institutional in character.

Digital transformation programs intensify these contradictions by deploying technologies that encode one temporal culture in material form, making it visible, measurable, and enforceable in ways that challenge the legitimacy and coherence of alternative temporal orientations. The institutional ambitemporality framework proposed in this paper offers one contribution to understanding these dynamics — not as a final answer but as a theoretical platform from which empirical researchers can investigate the temporal dimensions of institutional change with the rigour and contextual sensitivity that the complexity of the phenomenon demands.

References

- Adam, B. (1990) *Time and Social Theory*. Cambridge: Polity Press.
- Barley, S. (1988) 'Technology, power, and the social organization of work', *Research in the Sociology of Organizations*, 6(1), pp. 33–80.

- Barad, K. (2007) *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham, NC: Duke University Press.
- Braidotti, R. (2013) *The Posthuman*. Cambridge: Polity Press.
- Haraway, D. (1991) *Simians, Cyborgs, and Women: The Reinvention of Nature*. New York: Routledge.
- Hayles, N. K. (1999) *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago: University of Chicago Press.
- Battilana, J. and Dorado, S. (2010) 'Building sustainable hybrid organisations: The case of commercial microfinance organisations', *Academy of Management Journal*, 53(6), pp. 1419–1440.
- Besharov, M. and Smith, W. (2014) 'Multiple institutional logics in organisations: Explaining their varied nature and implications', *Academy of Management Review*, 39(3), pp. 364–381.
- Biesenthal, C., Clegg, S., Mahalingam, A. and Sankaran, S. (2015) 'Applying institutional logics to resolving paradoxes in megaproject delivery', *International Journal of Project Management*, 36(2), pp. 269–279.
- Bloomberg, J. (2018) 'Digitization, digitalisation, and digital transformation: Confuse them at your peril', *Forbes*, 29 April.
- Bluedorn, A. (2002) *The Human Organization of Time: Temporal Realities and Experience*. Stanford, CA: Stanford University Press.
- Bluedorn, A. and Denhardt, R. (1988) 'Time and organisations', *Journal of Management*, 14(2), pp. 299–320.
- DiMaggio, P. (1988) 'Interest and agency in institutional theory', in Zucker, L. (ed.) *Institutional Patterns and Organisations*. Cambridge, MA: Ballinger, pp. 3–22.
- Ejersbo, N. and Greve, C. (2017) 'Digital era governance reform and accountability', in Greve, C. and Ejersbo, N. (eds.) *The State at a Crossroads*. Copenhagen: DJOF Publishing, pp. 197–222.
- Fountain, J. (2001) *Building the Virtual State: Information Technology and Institutional Change*. Washington, DC: Brookings Institution Press.
- Friedland, R. and Alford, R. (1991) 'Bringing society back in', in Powell, W. and DiMaggio, P. (eds.) *The New Institutionalism in Organisational Analysis*. Chicago: University of Chicago Press, pp. 232–263.
- Garud, R., Hardy, C. and Maguire, S. (2007) 'Institutional entrepreneurship as embedded agency', *Organisation Studies*, 28(7), pp. 957–969.
- Gil-Garcia, J., Dawes, S. and Pardo, T. (2018) 'Digital government and public management research: Finding the crossroads', *Public Management Review*, 20(5), pp. 633–646.
- Gobble, M. (2018) 'Digitization, digitalization, and innovation', *Research-Technology Management*, 61(4), pp. 56–59.
- Greenwood, R., Raynard, M., Kodeih, F., Micelotta, E. and Lounsbury, M. (2011) 'Institutional complexity and organisational responses', *Academy of Management Annals*, 5(1), pp. 317–371.
- Hall, E. (1959) *The Silent Language*. New York: Doubleday.
- Heeks, R. (2003) *Most e-Government-for-Development Projects Fail: How Can Risks be Reduced?* IDPM i-Government Working Paper No. 14. Manchester: University of Manchester.

- Hofstede, G. (1997) *Cultures and Organisations: Software of the Mind*. New York: McGraw-Hill.
- Jay, J. (2013) 'Navigating paradox as a mechanism of change and innovation in hybrid organisations', *Academy of Management Journal*, 56(1), pp. 137–159.
- Lounsbury, M. (2007) 'A tale of two cities: Competing logics and practice variation in the professionalising of mutual funds', *Academy of Management Journal*, 50(2), pp. 289–307.
- Mazmanian, M., Orlikowski, W. and Yates, J. (2013) 'The autonomy paradox: The implications of mobile email devices for knowledge professionals', *Organization Science*, 24(5), pp. 1337–1357.
- McMullin, C. and Skelcher, C. (2018) 'The shift from market to community institutional logics in the third sector: Evidence from the UK', *Journal of Business Ethics*, 168(2), pp. 399–413.
- Mergel, I., Edelman, N. and Haug, N. (2019) 'Defining digital transformation: Results from expert interviews', *Government Information Quarterly*, 36(4), 101385.
- Meyer, J. and Rowan, B. (1977) 'Institutionalised organisations: Formal structure as myth and ceremony', *American Journal of Sociology*, 83(2), pp. 340–363.
- Orlikowski, W. and Yates, J. (2002) 'It's about time: Temporal structuring in organisations', *Organization Science*, 13(6), pp. 684–700.
- Pache, A. and Santos, F. (2010) 'When worlds collide: The internal dynamics of organisational responses to conflicting institutional demands', *Academy of Management Review*, 35(3), pp. 455–476.
- Pache, A. and Santos, F. (2013) 'Inside the hybrid organisation: Selective coupling as a response to competing institutional logics', *Academy of Management Journal*, 56(4), pp. 972–1001.
- Plesner, U., Justesen, L. and Glerup, C. (2018) 'The transformation of work in digitalised public sector organisations', *Journal of Organisational Change Management*, 31(5), pp. 1176–1190.
- Reinecke, J. and Ansari, S. (2015) 'When times collide: Temporal brokerage at the intersection of markets and developments', *Academy of Management Journal*, 58(2), pp. 618–648.
- Skelcher, C. and Smith, S. (2015) 'Theorising hybridity: Institutional logics, complex organisations, and actor identities', *Public Administration*, 93(2), pp. 433–448.
- Thomann, E., Hupe, P. and Sager, F. (2016) 'Serving many masters: Public accountability in private policy implementation', *Governance*, 31(2), pp. 299–319.
- Thornton, P. and Ocasio, W. (1999) 'Institutional logics and the historical contingency of power in organisations', *American Journal of Sociology*, 105(3), pp. 801–843.
- Thornton, P. and Ocasio, W. (2008) 'Institutional logics', in Greenwood, R. et al. (eds.) *The SAGE Handbook of Organisational Institutionalism*. London: SAGE, pp. 99–129.
- Thornton, P., Ocasio, W. and Lounsbury, M. (2012) *The Institutional Logics Perspective: A New Approach to Culture, Structure and Process*. Oxford: Oxford University Press.
- Yoo, Y., Boland, R., Lyytinen, K. and Majchrzak, A. (2012) 'Organizing for innovation in the digitized world', *Organization Science*, 23(5), pp. 1398–1408.
- Zerubavel, E. (1981) *Hidden Rhythms: Schedules and Calendars in Social Life*. Chicago: University of Chicago Press.

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Note: This is a theoretical paper. Figure 1 is an original contribution of this study. Empirical illustrations drawn from the Saudi Vision 2030 context are used for illustrative purposes only and are developed more fully in the companion empirical paper.