Balancing Power and Participation: Ethical Contributions to Digital Strategy Development Based on a Case Study at a Public University

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Abstract. As societies undergo digital transformation, organizations face the challenge of actively shaping it. Ethical concerns need to be embedded in the process of digital strategy development itself to be effective. This paper explores not only ethics through strategy but also strategy through ethics. How is ethics perceived within a digital strategy process? In what ways can ethics contribute to the development of a more effective strategy? To address these questions, we conducted a qualitative case study at a German public university. Sixteen employees involved in IT strategy, implementation, and administration across all hierarchical levels were interviewed. While "ethics" was rarely mentioned explicitly – mostly as an individual concern – the analysis revealed that "balancing power and participation" constitutes a central tension. We argue that typical decision-making challenges, such as IT project prioritization and resource allocation, are inherently ethical. A discourse-ethical approach, with agile methods, can support such decisions in a structured, value-sensitive way. Our transdisciplinary study draws on three fields: (1) emergent strategy and Open Strategy in digitalization contexts; (2) integration of ethics into IT governance; and (3) political-philosophical theories on power and participation. The study offers practical guidance for decision-makers, developers, and staff engaged in complex implementation processes during digital transformation.

Keywords: Ethics in Digital Transformation · Digital Strategy · Open Strategy · Participatory IT Governance · Case Study

1 Introduction

Digital transformation is not only a matter of technological innovation, but also of strategic alignment and ethical responsibility. This is particularly true for public institutions such as universities, where digital strategies must balance organizational objectives with broader societal values. Legal requirements in these contexts may be more stringent and demand earlier implementation than in commercial organizations (e.g., digital accessibility; [19]). Theoretically, public sector institutions can be seen as pioneers in translating societal ideas into practice. Yet the reality is far more complex: Those responsible for IT development and implementation are expected to "square the circle" –

fulfilling legal obligations while addressing ethical aspects often perceived as softer requirements (e.g., sustainability; [33], pp. 35–36). They must do so with limited resources (both personnel and funding), and sometimes without "ethically clean" alternatives, such as in choosing software providers (initiatives exist; e.g., [9]). The political climate adds further complexity, particularly regarding trustworthy providers. Beyond GDPR compliance, which is now largely embedded in standard processes, the pursuit of digital sovereignty has become a strategic concern [38].

Our research builds on the observation that digital strategies, especially at universities, are still in their early stages, and that ethics are often treated as a secondary concern. However, an ethical perspective could lead to better strategies, for example, because a strategy that is known and supported can be more effective. We conducted a qualitative case study at a German public university, interviewing sixteen participants from IT strategy, implementation, and administration at various hierarchical levels. We examine how ethical considerations are incorporated into digital strategy development. While the term "ethics" was rarely mentioned explicitly – typically in relation to individual concerns or legal norms – the interviews revealed a recurring theme: "balancing power and participation."

We argue that decisions commonly framed technical or economic – such as IT project prioritization or resource allocation – are inherently ethical. The question of how to distribute scarce resources lies at the core of ethical theory. Ethics, in this sense, can support such decisions in a structured, value-sensitive manner.

This gives rise to three guiding research questions:

- How is ethics integrated in digital strategy development?
- What ethical implications stem from structures of power and participation?
- How can ethics contribute to digital strategy development?

By "digital strategy development," we refer to shaping processes and ensuring alignment within digital transformation. Our understanding of "ethics" focuses on procedures rather than normatively evaluating outcomes, adopting a discourse-ethical perspective centered on action and communication.

Prior to presenting the interview findings, we outline relevant theory, including H. Mintzberg's concept of emergent strategy, Open Strategy in digitalization, and approaches to integrating ethics into IT governance. Drawing on M. Foucault and J. Habermas, we link political philosophy to digital strategy development, assuming that understanding its social mechanisms can improve design and impact. Based on our findings, we propose viewing digital strategy development as a field of ethical negotiation. To support those involved, we integrate empirical insights with established theories and use agile methods to translate them into actionable recommendations.

2 Related Work

This section provides an overview of the interdisciplinary approaches that form the theoretical foundation for our study on ethical contributions to digital strategy development, with particular emphasis on the tension between power and participation.

2.1 Emergent Strategies and Open Strategy in Digitalization

An important conception of "strategy" can be attributed to A.D. Chandler [5], focusing on the pursuit of long-term goals. Strategy also includes statements about the activities and resources necessary to achieve these goals. Initially, IT provided administrative support for realizing business strategy. In the 1990s, this shifted to close coordination and alignment between business and IT strategy, with IT strategy remaining subordinate [24,43]. According to Teubner & Stockhinger [43], digitization and digital business models have significantly transformed this interaction. They argue that the intersection of both strategies creates a digital business strategy, where digital technologies are deeply integrated into value creation.

Modern strategy research is significantly influenced by H. Mintzberg [30,44]. One key contribution is his demonstration that intended and realized strategies often diverge. A deliberate strategy directly translates intention into realization, but in practice, only parts are realized. In addition, an emerging strategy influences the realized strategy. Strategy development thus spans a continuum between deliberate and emergent strategy [29]. Deliberate strategies are planned, emergent strategies arise from actions. "For a strategy to be perfectly emergent, there must be order – consistency in action over time – in the absence of intention" ([29], p. 258). In practice, strategies lie between these poles. Mintzberg & Waters identify eight strategy formation types. Internal stakeholder coordination and external influences can shape strategy. Planned strategies stem from senior management, entrepreneurial strategies from a leader's vision, ideological strategies from shared convictions, and consensus strategies through agreement without central control. Unconnected strategies reflect loosely linked actions [29].

Mintzberg's focus on the intentions and behavior of actors reappears in approaches like Open Strategy, which involves internal stakeholders below top management and external groups in strategy development [23,42,44]. This inclusion supports innovation [23]. IT tools enable broader participation [42], helping organizations leverage the skills for digital transformation [35]. However, depending on the situation, the dimension of participation can be in tension with the dimension of transparency [23]. Stadler et al. [41] show how organizations can use different practices in the three phases of the strategy development process – idea generation, strategy formulation, and strategy implementation – to extend or reduce the circle of participants. In the idea phase, new ideas can be generated with the aid of a broad circle of stakeholders without sharing sensitive organization-specific knowledge. These stakeholders can be involved, for example, through competitions or the Trend Radar tool. In the strategy formulation phase, the "what" and "how" of a strategy can be discussed in business logic contests with selected groups of employees and participants outside the organization. In the strategy implementation phase, the discussions can be facilitated by activities in the internal social networks of the organization [41]. However, the extent of participation and transparency cannot be regulated solely by upper management using a top-down approach. Indeed, the extent of both dimensions is also influenced bottom-up by the manner in which stakeholder groups participate in the strategy processes and the extent to which they independently utilize digital tools to make information transparent [35].

2.2 Integration of Ethics in IT Governance

IT governance research tends to focus less on specific ethical approaches and more on overarching societal norms to be integrated into practical applications. Ethical aspects are often treated as requirements alongside other goals. Topics like data protection, sustainability, and fairness are increasingly part of the discourse. Procedural ethical aspects of negotiating a digital strategy are rarely addressed, despite the central role of strategy development in governance.

E. Mumford's approach is well known. Through ETHICS [32], she analyzed socio-technical systems proposing a model for incorporating stakeholder interests. However, ETHICS primarily focuses on the development and implementation of information systems, not on digital strategy development. E. Ostrom's design principles represent another classic approach [36]. While she addressed governance – unsurprisingly, as a political scientist – her focus was on *Governing the Commons*. She argued that those affected by a decision should be involved in decision-making. Noteworthy is her discussion of resource scarcity. However, the transferability to strategy development is limited. IT projects within institutions cannot be compared to common goods, and the question of how to hierarchize goals when financial constraints exist was not within the scope of Ostrom's research.

Currently, L. Floridi's work is influential. He argues that "digital innovation must move to the governance of the digital" [12]. Crucial is his analysis of the "infosphere," where entities are conceived as "nodes" in a "network" (cf. [13], p. 21). Floridi wants the "information society" to include the "silent world" – such as the weak, future generations, and nature ([13], p. 30). This ties to his idea of "infraethics" ([13], p. 31): The government's task is to secure "the infrastructure of ethics." Although Floridi envisions a participatory policy, his ideas remain abstract. Where he adopts a practical stance, he seems to regard the governance level as already established, articulating principles normatively (e.g., [11]). For our research, his distinction between hard and soft ethics is important [12]: Hard ethics refers to codified rules and laws, while soft ethics encompasses what goes beyond legal requirements. Floridi does not adopt a procedural approach. By contrast, some recent approaches apply procedural justice, drawing on John Rawls' *Theory of Justice*, to the governance of IT projects [18] or examine negotiation processes in developing ethically "good" information systems [17]. F. Nascimento [33], in turn, links ethical reflection with technical practice inspired by P. Ricoeur. Such efforts remain rare. To date, the relationship between the micro level of IT project organization and the macro level of overall strategy is largely underexplored in the research literature.

There are attempts to combine both levels by means of agility. While "ethical digital strategy development" is rarely explored, "agile strategy development" is broadly discussed. One agile method to empower employees to work toward strategic goals and to measure the outcome is *Objectives and Key Results* (OKR) [6]. As supporting tool for ethics, for example, agile practices could help in the development of green and sustainability software [40]. A *Sustainability Awareness Framework*, developed in 2020 [7], was successfully implemented in scrum cycles for design and development decisions [4,37]. Nevertheless, these approaches focus on concrete software development, not on

the governance level in particular. One study explored methods of ethical public procurement of IT systems in Finland and led to a framework [26].

2.3 Key Political-philosophical Theories on Power and Participation

In modern political philosophy, the discourse on power has been shaped notably by H. Arendt and M. Foucault. This section focuses on the latter due to his specific relevance for our study. Foucault embedded power within a socio-cultural framework, conceiving it as productive: Power enables effectiveness. It is not inherently negative (in this, he aligns with Arendt, who distinguishes power from violence; [2], pp. 35–42). Power is ubiquitous and cannot simply be eliminated ([27], p. 166). It is not possessed by certain individuals or groups but the effect of practices operating within a network of actions. Foucault was interested in the structure of power relations, as shown in *Surveiller et punir* [16]. He was not an ethicist who proposed ideals about what a just or a morally desirable balance of power and participation should look like.

For Foucault, power is inherently strategic, though not necessarily *planned*. Strategy is embedded in systems – for example, a teacher may punish a student not due to a *personal* strategy, but because the *system* defines a certain behavior as punishable. Even habitual (i.e., unconscious) behavior can be strategic, as it perpetuates certain patterns of conduct. The idea that strategy need not be planned links Foucault to Mintzberg (on Mintzberg as a conceptual extension of poststructuralism: [39]). However, Foucault saw power as distributed across decentralized networks. He spoke of "great anonymous strategies" ([14], p. 125; transl.) and envisioned a "strategy without strategists" ([1], p. 455; transl.). In *L'ordre du discours* [15], he discussed the implications of this for negotiation (with relevance for strategy development). He assumed "that in every society, the production of discourse is simultaneously controlled, selected, organized, and channeled" ([15], p. 10; transl.) and identified mechanisms that limit participation: certain statements are deemed inappropriate (prohibited or classified insane); expression presupposes specific expertise or roles (not everyone is permitted to speak); it is subject to ritual constraints (discussion spaces may serve as instruments of discursive control); and it must adhere to established conventions (e.g., the distinction between speakers and listeners).

While Foucault unmasks structural mechanisms of power within discourse, J. Habermas shapes those structures through discourse ethics. Though often contrasted, their perspectives are complementary ([22], p. 311). Habermas [21] fills the gap left by Foucault's analysis by providing normative elements. For Habermas, "strategic action" carries a negative connotation, referring to the use of power to gain advantage over others. In contrast, "communicative action" is oriented toward mutual understanding, involving rational deliberation aimed at the best argument ([21], p. 384–385). He emphasizes conditions for legitimate discourse, such as accessibility, equal participation, and truthfulness ([20], p. 161). The ideal is a discourse free from domination. Although Habermas envisions a democratic society, his focus on identifying the best reasonable solution – regardless of who proposes it – can enhance processes beyond political settings.

This returns us to "participation." Since the 1960s, various tiered models of participation have been developed to measure the degree of people's possible engagement in

discourse. These models can be traced back to *A Ladder of Citizen Participation* by S.R. Arnstein [3]. Her model divides eight rungs into three categories: "Nonparticipation" (manipulation and therapy); "Tokenism" (informing, consultation, and placation); "Citizen Power" (partnership, delegated power, and citizen control). A three grade OECD framework published 2001 distinguishes information, consultation, and participation [34]. J. Morton presented a framework for tiered participation in strategy development: "Engaging Polyphony" (open informing); "Harnessing Polyphony" (collecting a wide range of voices); "Integrating Polyphony" (gathering wide feedback and incorporate ideas directly into strategy) [31]. Useful is also the *Liberating Structures* collection [28]. It contains over 33 micro structures to ensure decision finding meetings where everyone gets a voice.

3 Research Design

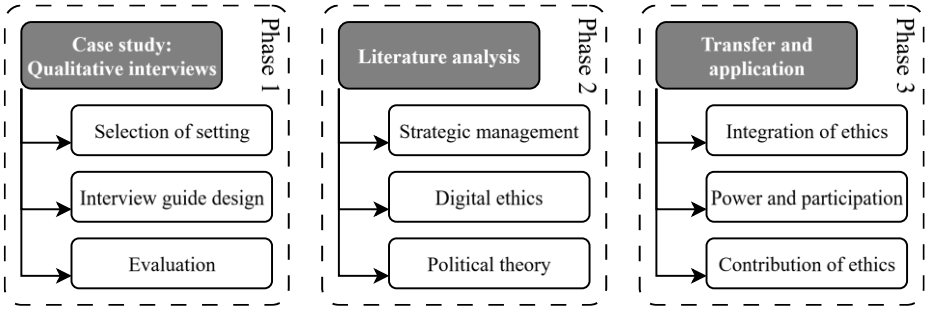

Fig. 1. Overview of the study design

We adopted an exploratory qualitative approach combining a theory-informed and data-driven analysis with an integrative, interdisciplinary review of relevant theoretical perspectives. Our research design (Fig. 1) includes a case study on digital strategy development (Phase 1), an analysis of relevant literature (Phase 2), and an application-oriented synthesis resulting in recommendations for practice (Phase 3).

In Phase 1, we conducted a case study at a German public university (>20,000 students; >5,000 employees; technology-oriented) in 2025. The case study methodology is based on K. Eisenhardt [8]. We used a semi-structured interview guide including questions informed by the *Critical Incident Technique* [10]. Interviews addressed participants' activities, perceptions of university digital projects, related guidelines and strategies known to them, the origin and purpose of current practices, and views on how projects or strategies are or should ideally be developed. We examined understandings of "(digital) strategy," as well as internal (e.g., ethical) and external frameworks (e.g., laws, chain of command).

We conducted 16 Interviews, each lasting approximately 60 minutes, conducted equally by two members of our team of authors. Participants (56% female) represented various organizational areas and hierarchical levels (e.g., CIO, developer, user). Table 1 lists the interviews and participants' roles: (a) authors of strategy papers, (b) team or

department managers, (c) IT developers, (d) project managers, (e) central administrative staff. The student council was invited to participate unsuccessfully.

Table 1. Overview of interviewees; for legend see text.

Interview		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Group or role	a	x	x	x			x			x		x			x		x
	b				x		x	x	x	x		x					x
	c				x	x	x										
	d	x		x		x			x				x	x		x	x
	e							x			x		x	x	x	x	

Following transcription, we analyzed the interviews using a theory-informed and data-driven approach, combining inductive and deductive thematic coding. We identified core issues and interconnections. Text segments were categorized into themes such as "Organization and IT," "Status of a central digital strategy," and "Awareness of a central digital strategy," among others. The analysis of recurring themes indicated that, in addition to responses to explicit questions (e.g., awareness of a central digital strategy or perceptions of ethics within strategic decision-making), an unanticipated theme gained particular prominence across interviews: "power and participation." The high prevalence of "power and participation" led us to adopt it as topic for further research.

In Phase 2, we conducted a corresponding literature analysis in strategic management, digital ethics, and political theory. For future recommendations, we also incorporated approaches from agility research and citizen participation. In Phase 3, we combined the empirical and theoretical parts discursively as the basis for our practical recommendations.

4 Results

Below, we provide an overview of the findings relevant to the theme presented.

Organization and IT. The case study institution has central decision-making bodies (rectorate and senate), a central administration, and centralized services such as a library and an IT service center, providing campus-wide functions, including email servers and research database hosting. Decentralized research departments largely operate their own IT infrastructure (Interview [Int.] 9). Electronic records (*E-Akten*) had not yet been implemented (Int. 15). Interviewees reported central processes with breaks in media continuity (Int. 8).

Status of a central digital strategy. At the time of the case study, no central digital strategy had been adopted. However, two strategies were in advanced development (Int. 1–4, 6–7, 9). Experts at the IT service center had been working on an "IT strategy," which was intended to be derived from an overall "digital strategy" led by the CIO. Although the digital strategy was initiated later, it was completed earlier and was awaiting central approval for publication.

Awareness of a central digital strategy. Employees not directly involved in drafting these documents were largely unaware of them. A quarter stated that, prior to these initiatives, the university had been "relatively lacking in strategy" in the digital – or that they themselves had been unable to discern a coherent direction (Int. 1, 4, 9–10). Half of those expressed skepticism about whether a written strategy would have any impact, given that few would be aware of it (Int. 1, 9). A similar sentiment appears in the quote: "Writing it down is easy, but implementation is what matters" (Int. 14). Some suspected that a strategy existed but that they alone were unaware of it (Int. 12), or simply assumed there might be one, without knowing for sure (Int. 13). One respondent speculated that knowledge might increase at higher levels: "Maybe my boss knows the strategy, maybe my boss's boss knows it, maybe the CIO knows it, or maybe it doesn't even exist" (Int. 5). Others had long waited for a central strategy, at times imagining it might cascade down from a state-level digital strategy (Int. 15).

Knowledge of digital strategy guidelines and action. Interviewees mentioned various guidelines relevant to their specific work (Int. 9–10, 15). They also observed strategic action on an individual level. Regarding their own actions, one respondent noted (Int. 1): "In the vacuum [...] – given the absence of a written strategy and, in some cases, a common understanding of what strategy actually means [...] – it's perfectly possible to simply set your own priorities." Regarding others, interviewees mentioned that leaders could pursue their own (sometimes self-centered) strategies without documenting them (Int. 2). Developers at the IT service center were described as free thinkers, acting relatively independently and setting priorities in digitalization they deemed useful (Int. 4). Some explained that they actively sought information to gain guidance by attending meetings or reading committee reports (Int. 8, 13) – "not only to find out where the journey is headed, but also to help shape it" (Int. 13).

Challenges in digital alignment. Most interviewees identified scarcity of funding in the public sector as a major challenge to digital alignment (Int. 4–7, 10–13, 15–16). Nearly half mentioned a lack of qualified personnel (Int. 1–3, 7, 10–11, 15). Two respondents noted the challenge of not starting from scratch, but of dealing with diverse software used across the organization (Int. 11–12). A few addressed geopolitical challenges, particularly in relation to Microsoft 365 and cloud solutions (Int. 3, 7–8, 14). Internal university politics were cited more frequently. These will be taken up under the points "Power" and "Participation."

Knowledge of legal frameworks. The majority thought (Int. 2): "Laws are there to be obeyed." All participants were familiar with the GDPR as "the guideline that we have to adhere to" (Int. 4), which aligns with (Int. 5): "I think that anything that is clearly defined and regulated is easy to understand and easy to adhere to." Laws related to digital invoicing (Int. 2, 11, 15), energy efficiency (Int. 2–3,10), the Online Access Act in German public administration (Int. 11, 16), and e-government (Int. 7) were mentioned. All participants were aware of a law on digital accessibility, though it was only occasionally raised unprompted (Int. 6–7, 9). One person noted (Int. 3): "I think that's the area where the least happens when you don't pay attention to it, even though you really should."

Awareness of ethical issues within digital alignment. The question of how ethical aspects shape digital strategy development initially led to deliberation. One person said ethics played no role here (Int. 14). Some mentioned sustainability (Int. 2–4, 6, 13), while others viewed sustainable digitalization as greenwashing (Int. 11). One interviewee said they look for certificates when purchasing software, such as regarding accessibility (Int. 2). When digitalization is seen as work facilitation, an ethical element can be indirectly perceived: Automation of standard processes gives people time for creative tasks (Int. 1, 7–8, 10, 12).

Individual and corporate ethics. Ethics was seen less as a part of strategy development and more as an individual attitude: "Individuals bring their own personal values to the table" (Int. 3). One interviewee thought of ethics as something for people who are interested in it – with specific spaces for this within the university (Int. 8). Another person mentioned (Int. 4): "Ethical issues are always secondary at first [...]. But it's actually extremely important. In my line of work, I do think about ethics." "Intrinsic motivation" (Int. 12) and the Golden Rule (Int. 5) were cited as a guide for one's actions. In terms of values, reliability was noted, both regarding partners (software provider, supply chain; Int. 1, 3, 7, 15) and in terms of having a consistent strategy (Int. 11). Transparency was also emphasized (Int. 6–7, 9, 12, 15). Equal opportunities were implicitly mentioned regarding access and usability (Int. 3). Several stated they had chosen to work in the public sector to promote the common good (Int. 5–6, 10). The use of Microsoft 365 was explicitly identified as a value conflict (Int. 7–8).

Institutionalized and personalized ethics. Ethical issues seemed to receive particular attention when they were "institutionalized" or "personalized:" when structures involve the works council in decisions, attention is paid to employee welfare (Int. 8, 12); when a family office representative is present in committees, regulations on work-life balance, such as remote work, are promoted (Int. 13); involving the data protection authority ensures compliance with the GDPR (Int. 4, 8, 12). However, such positions were also seen as "obstacles" (Int. 8, 12).

Power. Resource scarcity was described as a source of power struggle (Int. 11, 14). Influence was exerted through funds, behavior, and relationships (Int. 1, 3, 6, 11, 16), and the implementation power of IT personnel (Int. 3, 4, 6, 7, 9). Arbitrary decisions by leaders were seen as disruptive (Int. 1–2, 10–11). Unclear responsibilities were identified as challenging (Int. 1, 7–9, 11–12). Conversely, certain department heads received positive feedback for fostering employees' work autonomy (Int. 5). The organization's size was noted to facilitate unregulated projects (Int. 6, 7, 10–11), while committees were expected to strategically prioritize or reject IT projects (Int. 2–3, 9, 14), though requiring legitimization from the rectorate (Int. 3, 11, 15). Those outside of IT had to personally advocate for their projects (Int. 12–13). The decision-making authority of those in power was considered legitimate (Int. 3, 14), whereas lack of decisions was seen as problematic (Int. 15, 16).

Participation. Three people did not comment on participation (Int. 11, 14, 16), one even stated that workshops would "beat the strategy to death" (Int. 14). All other 13 interviews emphasized the demand for broad information sharing. The most extensive

forms of participation requested included: experts should be involved in the writing process (Int. 4, 9, 13); the results should be open for discussion (Int. 3, 7, 15); participation processes on a broad basis, for example, with interested parties or those affected (Int. 1–2, 6, 8); unrestricted moderated participation processes (Int. 5, 10, 13).

Agile approaches. Five people mentioned or described OKR or other agile approaches as suitable participation strategy frameworks (Int. 1, 4, 7, 13–14). Sufficient time, but not excessive, should be allowed for the processes and discussions (Int. 1, 5, 13, 15). Some explicitly stated that the results of discussion processes should also be taken into account, regardless of the role of the author (Int. 1, 5, 7, 9). The results for the strategy from a participation process should be selected by a responsible manager (e.g., CIO, chancellor) within a durable decision (Int. 5, 9–11, 14, 16). A strategy created only by one person or an isolated management group was rated as worst-case scenario (Int. 5–6, 8–10, 15).

5 Discussion

In this chapter, we will discuss the research background in relation to the interview findings, following the research questions introduced at the beginning.

5.1 Integration of Ethics in digital strategy development

If one focuses solely on the interview question regarding the role of ethics in the strategy development process, it may seem that ethics plays a marginal role at best. This is likely due to associations the term "ethics" triggered. Some linked ethics to values (e.g., reliability, transparency), while others thought of guiding principles (e.g., the Golden Rule). Most were unaware that by adhering to laws they were also following ethical principles. This aligns with Floridi's distinction between hard and soft ethics [12]. It also highlights that for ethics to have a greater impact, it needs to become a legally enforceable, essential standard. At the same time, ethical values at the individual level repeatedly played a role. It is noteworthy that, for some participants, the very context of public service was associated with an intrinsic motivation to promote the common good. This conviction is reflected, for example, in a developer's attention to ethically relevant certifications when selecting providers.

Interviews revealed a deliberative and an emergent understanding of strategy – an ambidextrous approach familiar in poststructuralism and strategic management. Notions that strategy implementation involves power resonate with both Foucault and Habermas, reflected in participants' attitudes: for some, power was not inherently negative, but structurally embedded; for others, it linked to a desire for greater participation. Habermas' discourse ethics aligns with the desire to be heard in appropriate formats. Foucault's analysis, in turn, holds true: participation is constrained by conditions (e.g., expertise, rank). Some interviewees perceived "strategy" as a matter of leadership, differing in whether they endorsed this view or criticized a lack of participation. Certain developers wished to have their practical concerns embedded at a strategic level but felt

overlooked. Conversely, some administrative staff (users) placed trust in their supervisors' strategic decisions.

Overall, ethics in strategy development is not fully captured when reduced to identifying objectives as strategic goals. In this case, ethics is also about processes. This makes a discursive approach suitable, in line with recent advancements in digital ethics as mentioned earlier. The reference to a contemporary study on John Rawls' *Theory of Justice* in software development fits well with the integration of political theory in strategy development. Building on that study, the observation of "personalized" ethics suggests a practical extension: consulting sustainability and accessibility experts during decision-making to integrate these issues into standard processes.

5.2 Ethical Implications of Power and Participation Structures

Interviews revealed that the strategy development process involves a struggle for resources, making prioritization necessary. A personal strategy in this context may involve emphasizing own priorities, such as increasing presence in meetings. The interviews confirmed manifestations of power through expertise (e.g., IT developers) and positional authority (e.g., decision-making bodies with restricted access). Some interviewees emphasized the need for greater access to information to better perform their work. There also appeared to be a lack of transparency regarding the criteria used to prioritize and select specific IT projects. In the absence of clearly communicated guidelines, project selection sometimes seemed influenced by informal factors. Some individuals used the lack of clear directives to pursue their own agendas.

These insights indicate that Foucault's analysis of power structures resonates with the participants' experiences. Foucault frames power as a structural phenomenon. The various dimensions, inspired by Foucault and Habermas identified through the interviews, are shown below. Fig. 2 provides a structured, concise overview; detailed explanations of each dimension are beyond this scope.

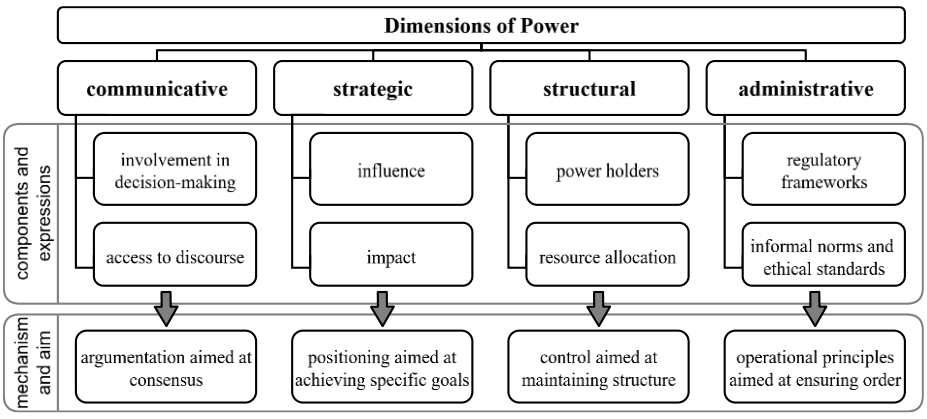

Fig. 2. Dimensions of power

Where Foucault's descriptive analysis ends, the focus shifts to participatory models (Habermas; agile frameworks). From an ethical view, it is desirable to safeguard the interests of all stakeholders, to implement fair and transparent decision-making procedures, and to ensure that employees have reliable structures to support their work.

5.3 Ethical Contributions to Digital Strategy Development

It should be clear by now that the foundation for ethics' contribution to digital strategy development – regardless of the promotion of values for orientation – lies in a procedural and discourse-ethical approach. This approach aligns with advancements in strategic management (though motivations may differ), which emphasizes leveraging innovative potential through participation, as well as digital ethics, where all stakeholders should be involved. By also addressing the relationship between "power and participation," the interdisciplinary research presented here converges.

The following goes beyond transdisciplinary synergies, offering a practical application. We recognize that participatory approaches require top management's willingness and are constrained by it. Although digital transformation affects all employees and students as users, management authorization and support remain essential prerequisites for translating discourse-ethical elements into practical formats.

Both developers and administrative staff demanded involvement. Their desire for participation aligns with the tiered model (information, consultation, participation; [34]), as well as with Morton's stakeholder involvement methods in strategy dialogues [31]: Engaging, Harnessing, and Integrating Polyphony. The Open Strategy approach [23] suggests methods, supported by IT tools, to continuously involve stakeholders in all phases of strategy development. In the following, we propose applying the participation levels in reverse order to the strategy development phases (Fig. 3). The aim is to ensure participation and value implementation while taking into account the organization's resources. In doing so, we also move toward realizing the ideal of discourse free from domination in the Habermasian sense.

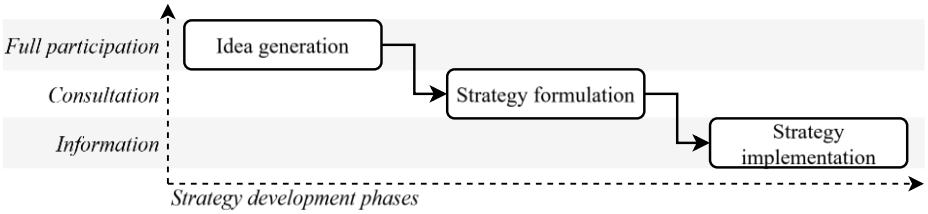

Fig. 3. Strategy phases with participation tiers

Idea generation / full participation. An exclusive author group or representatives appointed solely by the management do not secure broad support for the strategy. For ethical value elicitation and idea generation, integration of all stakeholders is essential. We propose two practical formats: (a) A competition among all stakeholders to submit suggestions and needs related to digital transformation, with ethical in mind. Competitions attract attention; the "prize" could be the opportunity to represent the topic in the

strategy committee. This reflects Habermas's idea of a contest of the best argument. (b) Face-to-face workshops with all stakeholders using democratic discourse methods such as *Liberating Structures*. This requires time and skilled facilitation. Internal (social) media campaigns with comment functions should accompany both formats.

Strategy formulation / consultation. Consultation is a sufficient form of participation during the formulation phase, as the topics have already been collected. Interview findings indicated no desire for endless discourse. Regarding "institutionalized ethics," topic representatives (selected via open application or stakeholder election) participate to ensure the impact of their ideas and transparency in the further process. At this phase, categories and transparent guidelines for the realization and prioritization of IT projects can be established.

Strategy implementation / information. To avoid a paper strategy, outcome monitoring is essential. Adopters of the *Sustainability Awareness Framework* [7,4,37] suggest cyclical checkpoints for verification. Scrum works best for linear projects and is less effective for complex, multi-threaded, or asynchronous workflows. As some interviewees mentioned, OKR would be useful. The objectives of cycles should derive from the digital strategy, to ensure participation is met. From Scrum, the practice of presenting products or interim results in a review could be adopted. An "ethics review," involving topic representatives, could be institutionalized – published via livestream or made available through recordings for a broad reach.

Perhaps, in the business sector there will be less focus on ethics and more on profit-oriented promotion for a methodological practice as described above. Certainly, ethicists would criticize such purely profit-oriented reasoning and the instrumentalization of ethics (possibly citing Foucault and Habermas). The interplay between power, participation, and profit remains a further challenge for digital transformation.

6 Conclusion and Outlook

This study explored digital strategy development from an ethical perspective, guided by three questions: how ethics is integrated, what implications arise from power and participation structures, and how ethics can contribute to strategy development. To address these questions, we conducted a qualitative case study at a German public university and reviewed interdisciplinary research. We propose framing digital strategy development as a field of ethical negotiation. Drawing on empirical insights, interdisciplinary theory, and agile methods, we offer practical guidance to support decision-makers, developers, and administrative staff in balancing power and participation. We suggest a participatory, deliberative format to negotiate interests and the fair allocation of scarce resources in a strategic manner likely to achieve broad acceptance, rather than attempting to remedy resource scarcity itself.

Nonetheless, there are limitations. Results from one public institution may not generalize to all public organizations or the private sector. While we assume "balancing power and participation" is fundamental in negotiation processes, future comparative

studies could verify this. We also consider resource scarcity to be a fundamental challenge that extends beyond public institutions to the private sector. A comparative study could assess whether individuals' commitment to public-service–oriented values influences their commitment to ethically shaping strategy. As this paper presents initial findings, some aspects remain exploratory. Further research can deepen specific points, such as focusing more on deliberative and emergent elements or on the proposed dimensions of power. Future research could also reflect the extent to which conceptions of leadership affect not only strategy development processes but also the ethical framing of strategic decisions. Lastly, our practical recommendations invite future implementation and evaluation.

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- Isabelle Fries contributed expertise in philosophy, ethics, and political theory. She was responsible for the overall structure and conclusions of the paper and participated in the writing of nearly all sections.
- Ulrich Fries contributed expertise in IT project management and change management. He authored the sections on agility and participation within 2.2 and 2.3, parts of 3 and 4, as well as 5.3, for which he also developed the conceptual content. In addition, he was responsible for the design of all figures.
- Martin Rost contributed expertise in management and strategy research. He was responsible for the interview guide, 2.1, and provided additions to other sections.

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References

1. Aggeri, F.: Les régimes de gouvernementalité dans le domaine de l'environnement. In: Hatchuel, A. et al. (eds.) Gouvernement, organisation et gestion: l'héritage de Michel Foucault, pp. 431-464. Presses de l'Université Laval, Quebéc (2005).
2. Arendt, H.: On Violence. Harcourt, Brace & World, New York (1970).
3. Arnstein, S.R.: A Ladder of Citizen Participation. In: J. Am. Inst. Planners 35(4), 216–224 (1969).
4. Bambazek, P. et al.: Application of the sustainability awareness framework in agile software development. In: 2023 IEEE 31st International Requirements Engineering Conference (RE), pp. 264–274 (2023).
5. Chandler, A.D.: Strategy and Structure: Chapters in the History of the American Industrial Enterprise. MIT Press, Cambridge, Massachusetts (1962).

6. Doerr, J.: Measure What Matters: How Google, Bono, and the Gates Foundation Rock the World with OKRs. Portfolio, New York (2018)
7. Duboc, L. et al.: Requirements engineering for sustainability: an awareness framework for designing software systems for a better tomorrow. In: Requirements Engineering, (25)4, 469–492 (2020).
8. Eisenhardt, K.: Building Theories form Case Study Research. In: AMR 14(4), 532-550 (1989).
9. Ethical: Ethical alternatives for tech stuff, https://ethical.net, last accessed 2025/08/08.
10. Flanagan, J.C.: The Critical Incident Technique. In: Psychol. Bull. 51(4), 327–358 (1954).
11. Floridi, L., Cowls, J.: A Unified Framework of Five Principles for AI in Society. In: Floridi, L. (eds.) Ethics, Governance, and Policies in Artificial Intelligence. Springer, Cham (2021).
12. Floridi, L.: Soft ethics, the governance of the digital and the General Data Protection Regulation. Phil. Trans. R. Soc., A376:20180081 (2018).
13. Floridi, L.: The Green and the Blue: A new Political Ontology for a Mature Information Society. In: Floridi L., Noller, J. (eds.): The Green and the Blue: Digital Politics in Philosophical Discussion, pp. 9–51. Karl Alber, Baden-Baden (2022).
14. Foucault, M.: Histoire de la sexualité I. La volonté de savoir, Gallimard, Paris (1976).
15. Foucault, M.: L'ordre du discours. Gallimard, Paris (1971).
16. Foucault, M.: Surveiller et punir. Naissance de la prison. Gallimard, Paris (1975).
17. Fries, I. et al.: On the Way to the Best Information System of the Future – Reflections on Scenarios in Favor of Good Technology Development. In: Papatheocharous, E. et al. (eds): Software Business. ICSOB 2024, pp. 68–82. Springer, Cham (2025).
18. Fries, I., Greiner M.: Technology-Enabled Fairness? Reflections on Fairness within Blockchain-Based Supply Chain Consortia. In: EURAM 2023 Proceedings (2023).
19. GOV.UK: Understanding accessibility requirements for public sector bodies, https://www.gov.uk/guidance/accessibility-requirements-for-public-sector-websites-and-apps, last accessed 2025/08/08.
20. Habermas, J.: Erläuterungen zur Diskursethik. Suhrkamp, Frankfurt a. M. (1991).
21. Habermas, J.: Theorie des Kommunikativen Handelns, vol. 1: Handlungsrationalität und gesellschaftliche Rationalisierung. Suhrkamp, Frankfurt a. M. (1981).
22. Haus, M.: Grundlagen der Politischen Theorie. Springer VS, Wiesbaden (2023).
23. Hautz, J. et al.: Open Strategy: Dimensions, Dilemmas, Dynamic. In: LRP 50(3), 298-309 (2017).
24. Henderson, J.C., Venkatraman, N.: Strategic Alignment: Leveraging Information Technology for Transforming Organizations. In: IBM Systems Journal, 32(1), 472-484 (1993).
25. Kaplan, R.S., Norton, D.P.: The office of strategy management. Harv. Bus. Rev. 83(10), 72–80 (2005).
26. Koski, A. et al.: The Ethical Landscape in Public Procurement of ICT Systems. In: Papatheocharous, E. et al. (eds): Software Business. ICSOB 2024, pp. 35–43. Springer, Cham (2025).
27. Ladwig, B.: Moderne politische Theorie: Fünfzehn Vorlesungen zur Einführung (3rd edn.). Wochenschau, Frankfurt a. M. (2022).
28. Lipmanowicz, H., McCandless, M.: The Surprising Power of Liberating Structures: Simple Rules to Unleash a Culture of Innovation. Liberating Structures Press, Seattle (2013).
29. Mintzberg, H., Waters, J.A.: Of strategies, Deliberate and Emergent. In: Strateg. Manag. J. 6(3), 257–272 (1985).
30. Mintzberg, H.: Four Forms That Fit Most Organizations. In: Calif. Manag. Rev., 66(2), 30-43 (2023).

31. Morton, J.: Strategy Making as Polyphony: How Managers Leverage Multiple Voices in Pursuing Agility. In: Calif. Manage. Rev. 65(4), 22–42 (2023).
32. Mumford, E.: Designing Human Systems for New Technology: The ETHICS Method. Manchester Business School, Manchester (1983).
33. Nascimento, F.: Digital Poetics: A Ricoeurian Approach to Digital Technologies. Bloomsbury, New York (2025).
34. OECD: Citizens as Partners. Information, Consultation and Public Participation in Policy-Making. OECD, Paris (2001).
35. Ortner, T. et al.: Open strategy and digital transformation: A framework and future research agenda. In: Int. J. Manag. Rev., 27(3), 324–345 (2024).
36. Ostrom, E.: Governing the Commons. Cambridge University Press, Cambridge (1990).
37. Oyedeji, S. et al.: Integrating Sustainability into Scrum Agile Software Development: An Action Research Approach. In: Papatheocharous, E. et al. (eds): Software Business. ICSOB 2024, pp. 236–250. Springer, Cham (2025).
38. Pohle, J. et al.: Unthinking Digital Sovereignty: A Critical Reflection on Origins, Objectives, and Practices. In: Policy & Internet, 16(4), 666–671 (2025).
39. Rasche, A.: The Paradoxical Foundation of Strategic Management. Physika, Heidelberg (2008).
40. Rashid, N., Ullah Khan, S.: Agile practices for global software development vendors in the development of green and sustainable software. In: J. Softw. Evol. Proc., 30(10), e1964 (2018).
41. Stadler, C. et al.: A User's Guide to Open Strategy. In: Harv. Bus. Rev., 11/02 (2021).
42. Tavakoli, A. et al.: Open Strategy: Literature Review, Re-analysis of cases and Conceptualisation as a Practice. In: J. Strateg. Inf. Syst., 26(3), 163–184 (2017).
43. Teubner, A.R., Stockhinger, J.: Literature review: Understanding information systems strategy in the digital age. In: J. Strateg. Inf. Sys., 29(4), 1-28 (2020).
44. Whittington, R.: The Practice turn in Organization Research: Towards a Disciplined Transdisciplinarity. In: Account. Organ. and Soc., 36(3), 183–186 (2011).