

Tensions between Affordances and Valuations of People Analytics among Stakeholders

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Introduction

Human resources (HR) professionals see prospects in people analytics (PA), inspired by the successful use of analytics from other departments such as finance and marketing (Angrave et al., 2016). Relying on data instead of intuition and experience, PA promises increased organizational effectiveness over traditional HR decision-making (Tursunbayeva et al., 2018). PA describes socio-technical systems that “analyze [people] data [...] for patterns and present decision-makers with more granular views of organizational resources, processes, people, and their performance” (Gal et al., 2020, p. 1). These tools can support or automate diverse tasks in the HR function, such as hiring, retention, onboarding, performance measurement, employee training, and various analytics, such as long-term workforce analysis and social network analytics (Hüllmann et al., 2021).

Given the plethora of tasks that PA supports and the resulting technology’s malleability various functional affordances emerge. Corollary, various symbolic expressions transpire from the interactions between technology and individual. Specifically, we borrow the concept of “communication of values” by Grgecic et al. (2015), which focuses on the potential value interpretations (“valuations”) of a technology and its affordances. Like all nonmaterial technologies, many stakeholders construct their own interpretations of PA which may lead to tensions (Gal et al., 2022). These tensions depict interpretational ambiguities in the interactions between technology, affordances, and symbolic expressions among stakeholders. For example, rising transparency can enhance managerial control, but trigger employee privacy concerns (Gierlich-Joas et al., 2020; Teebken & Hess, 2021).

The tensions are idiosyncratic for PA technologies and give rise to subjective beliefs surrounding PA’s organizational implementation. Beliefs are an individual’s manifestation of potential valuations and confronting these beliefs with the actual use of PA may lead to unmet expectations. As a result, these tensions complicate the introduction of PA into organizations and contribute to failing projects. This is evidenced by the increasing interest in PA but the level of adoption is only growing slowly (Chen et al., 2018). Shedding light on the formation of different beliefs enables addressing these tensions and misinformed expectations. This novel understanding contributes to effectively introducing PA in organizations, and reaping the rewards of data-driven decision-making in HR. We derive the following research question (RQ): *How do tensions between affordances and valuations of people analytics emerge among stakeholders?*

Research Approach

To investigate the tensions of PA, we draw on the concept of symbolic expressions (Markus & Silver, 2008) which builds on the adaptive structuration theory (AST) by DeSanctis and Poole (1994). Symbolic expressions are defined as “the communicative possibilities of a technical object for a specified user [group]” (Markus & Silver, 2008, p. 623). Symbolic expressions can refer to the whole IT artifact or distinct functional components (Goh et al., 2011). The communicative possibilities are distinguished into the communication of meaning and the communication of “intangible” or “ephemeral” values (Grgecic et al., 2015). The communication of meaning depicts *how users may interpret* the technologies’ material properties and functionality (Markus & Silver, 2008). Conversely, the communication of values depicts how users *may judge or rate the technology’s affordances* related to their personal or structural values and norms (Grgecic et al., 2015). This study focuses on the communication of values, abbreviated as “valuations”, to explore the tensions of PA. The valuation associated with the technical object emerges from the individual relationships between users and the technology (Goh et al., 2011). Hence, valuations are well suited for inquiring about a socio-technical system such as PA, which is characterized by distinct beliefs among stakeholders. These distinct beliefs can be conflicting and, thus, lead to tensions as individuals construct conflicting valuations for shared affordances.

We took an interpretive approach to scrutinize the socially constructed valuations of PA. To this end, we conducted 36 semi-structured interviews, following Myers and Newman (2007), to unpack the phenomenon from distinct perspectives with different stakeholders (47% C-level managers, 43% employees; 58% of the companies < 200 employees, 42% between 200-1500), and across multiple industries (e.g. logistics, consulting, manufacturing, health, and finance). The interviewees did not need to be active users of PA (75% were users, 25% non-users). We tested our interview guideline with two experts and used open-ended questions to explore the understanding of PA, use of PA, and perceived risks and benefits of PA. The data was collected in two periods, 2018 and 2021, to account for the development of PA and changes due to the COVID pandemic. The interviews were conducted in German language via video-conference solutions or the telephone and lasted between 30-45 minutes. They were recorded, anonymized, and transcribed verbatim (Saldaña, 2016). We conducted two coding cycles using the software Atlas.ti to analyze the data. The coding followed an abductive approach (Dubois & Gadde, 2002). The first coding cycle was used to develop a tentative coding scheme, which was applied during the second coding cycle (axial coding). All quotes were translated into English.

Findings and Contribution

We derive and aggregate the valuations of PA from the analyzed qualitative interviews. As Markus and Silver (2008) state, we observe that these differ between user groups. We find different valuations of similar affordances between users and non-users of PA, managers,

employees, and vendors. These valuations can be grouped into positive, negative, neutral, and uncertain valuations. The stakeholders share positive beliefs about PA, such as “better quality of data”, “increased quantity of data”, “more evidence-based decisions”, and “better leadership”, and they agree on the risks of “privacy issues” and “difficult compliance”. However, for some affordances, the valuations differ. For example, the valuation of increased transparency is negative for employees, and the risk of “employee[s being] virtually transformed into a data object” (user, team lead HR) is pointed out. Managers are optimistic that “they can handle the risks” (user, head of HR) and that they “are doing something good for [the] employees after all” (non-user, CEO). Vendors aim to invalidate privacy concerns by providing assurances that “data are anonymized, pseudonymized, and aggregated” (vendor, Co-CEO). These distinct valuations of the same affordance conflict with each other and create several tensions (see Figure 1).

Tension 1: Miscommunication from the vendor to management and employees. In the purchasing process, the vendor introduces the technology, bridging from the technical system to the organization’s social system. The vendor communicates the affordances of the technology via manuals, documentation, and advertising of the features. Hereby, the individual interprets the communicated value of the technology and derives affordances specific to their context (Markus & Silver, 2008). Managers express uncertainty at this point: “You see people analytics and say ‘Cool, we want to have that!’ but then you have to check first: Do you need this?” (PA consultant). “It is sometimes difficult to understand what technology can and cannot do. The first challenge is to clarify these expectations and understand what is possible with the technology.” (vendor, CEO).

Tension 2: Distinct perceptions of affordances by managers and employees. The individual cannot only derive an affordance for themselves but also for another user group and “not every goal is comprehensible to everyone and attractive to everyone” (user, head of HR). Thus, from the communicated value and meaning, the employee derives how management would apply the technology with a purpose, interpreting how the manager’s application would affect the employee. Conversely, the opposite is possible as well. We label this phenomenon a *third-party affordance*. Third-party affordances extend the dyadic relationship between an individual and technology (Grgecic et al., 2015; Markus & Silver, 2008). As the formation of affordances happens in the context of social values and norms, the derived third-party affordances may differ from first-party user group affordances.

Tension 3: Distinct formation of valuations. The individual forms beliefs about the technology and puts the technology to actual use (Leonardi & Rodriguez-Lluesma, 2012). Confrontation with the reality of using the technology may alter the valuation, which can change over time in a circular manner (Goh et al., 2011). The actualization of third-party affordances by others shapes the beliefs and explains how other people’s technology use can update an individual’s valuation. As a result, we learn that symbolic expressions not solely emerge between an individual and technological artifact (Grgecic et al., 2015), but are also shaped by other stakeholders.

Tension 4: The contextual factors of an organization might be misaligned with the intended use of the technical artifact. Lastly, we find that contextual factors play a big role as an overarching factor that moderates the outlined process of how valuations are formed and updated. The organizational characteristics set the frame for the formation of valuations as the organizational culture and, subsequently, shared norms and values of the organization influence first- and third-party affordances. “For what you use [PA] then, whether you use it ‘evil’ or super ‘Buddhist’, that is always up to the company” (user, manager).

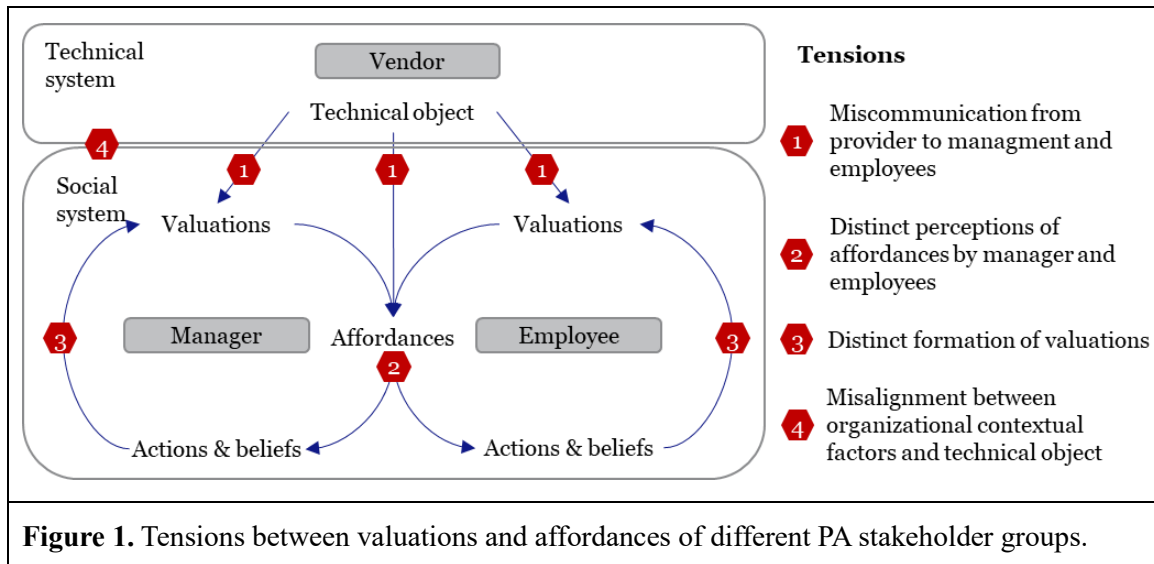


Figure 1. Tensions between valuations and affordances of different PA stakeholder groups.

In this workshop paper, we highlighted selected findings, however, the overall expected contribution of the work is broader. To the best of our knowledge, this study is one of the first empirical investigations on PA besides various conceptual pieces (Tursunbayeva et al., 2018). It sheds light on the contrasting beliefs of PA and, using the concept of symbolic expressions and affordances, derives an explanation for this ambiguity. We contribute to the theory of affordances. Not only do we apply it empirically, but we also theorize how the valuations emerge between stakeholders with different norms, values, and positions, and how they are mutually shaped between these stakeholders. Finally, the work contains implications for practice. We derive guidelines for managers in charge of initiating PA projects and design guidelines for developers.

Future Avenues

This research is completed, in the way that we conceptualized the problem and completed data collection and first analysis. Nevertheless, some questions about the theoretical development remain. The data was collected in the context of small and medium enterprises (SMEs). It is unanswered to what extent the focus on SMEs is a relevant contribution in itself. Furthermore, there is uncertainty whether the interplay between the theoretical concepts of affordances and symbolic expressions is coherent and clear. We are looking forward to discussing the theoretical framing of the paper and its contribution, amongst other relevant aspects.

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