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Recommended Citation

Clausen, Sünje; Brünker, Felix; Jung, Anna-Katharina; and Stieglitz, Stefan, "The Impact of Signaling Commitment to Ethical AI on Organizational Attractiveness" (2022). *Wirtschaftsinformatik 2022 Proceedings*. 10.

https://aisel.aisnet.org/wi2022/digital_business_models/digital_business_models/10

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The Impact of Signaling Commitment to Ethical AI on Organizational Attractiveness

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Abstract. As organizations drive the development and deployment of Artificial Intelligence (AI)-based technologies, their commitment to ethical and humanistic values is critical to minimizing potential risks. Here, we investigate talent attraction as an economic incentive for organizations to commit to ethical AI. Based on Corporate Social Responsibility (CSR) literature and signaling theory, we present a mixed-methods research design to investigate the effect of ethical AI commitment on organizational attractiveness. Specifically, we i) identify signals of ethical AI commitment based on a review of corporate websites and expert interviews and ii) examine the effect of selected signals on organizational attractiveness in an online experiment. This short paper presents first results on ethical AI signals and details the next steps. Our research will contribute to the theoretical conceptualization of ethical AI as a part of CSR and support managers of digital transformation processes when weighing investments in ethical AI initiatives.

Keywords: Signaling Theory, Corporate Social Responsibility, Organizational Attractiveness, Artificial Intelligence, Ethics

1 Motivation

Artificial Intelligence (AI), that is, the “*increasing capability of machines to perform specific roles and tasks currently performed by humans within the workplace and society in general*” [1, p. 2], is considered a key element for value creation in organizations and obtaining competitive advantages in the digital transformation [2]. While AI-based technologies are increasingly integrated in organizations [3], they are also a subject of concern [4, 5] especially due to their complexity and adaptability impeding the anticipation of adverse outcomes [6]. Thereby, legal guidelines and frameworks for the development and deployment of AI are still in their infancy and transferring them into practice can be challenging [6] and is strongly dependent on the priorities within organizations [7]. Thus, the initiatives of organizations to strive for *AI-based technologies as a force of good which empower humans and benefit society* (here referred to as “*ethical AI*”) are a crucial step for avoiding potential harms and should be a part of any company’s corporate social responsibility (CSR) initiatives.

CSR has its roots in normative ethics [8] and has been defined as an “*organization's voluntary efforts to operate ethically and promote the social and economic welfare of*

internal and external stakeholders” [9, p. 872]. The view that organizations ought to take more responsibility for the social and economic impact of digital technologies is also reflected in the recently proposed concept of corporate *digital* responsibility (CDR; [10]). Yet, regardless of normative considerations, the historical development of CSR shows that *economic incentives* are indispensable for organizations engaging in CSR activities [11]. Accordingly, previous research addressed how *doing good* (i.e., being ethical) and *doing well* (i.e., making profit) could be reconciled [12, 13] and identified arguments in the “business case for CSR” [14]. This raises the question: which economic incentives exist for organizations to voluntarily commit to ethical AI?

One such economic incentive could be a competitive advantage in attracting and retaining talent [14] which is one of the most important factors for sustained business success [15]. Due to demographic developments and changing demands in the job market, the competition among organizations for recruiting talented employees has intensified [16, 17]. Thereby, CSR initiatives (e.g., sustainable practices) were found to increase organizational attractiveness and employer attractiveness [18, 19] as well as job choice intentions [20, 21]. Moreover, Ronda et al. found that CSR is a *non-negotiable attribute* for some applicants: If a company did not meet CSR requirements, job offers were rejected in 31% of the cases, regardless of other attributes [22]. Thus, CSR serves as a competitive advantage for attracting talent [23, 24]. Here, organizational attractiveness refers to one’s (positive) attitude toward an organization and perceived desirability of entering an employment relationship. The effect of CSR on organizational attractiveness has been explained with signaling theory [25, 26] which assumes that CSR initiatives convey information about the companies’ values and practices. The effect on the perceived organizational attractiveness of prospective applicants is mediated through perceived value fit with an organization, anticipated pride of working for an organization, and expected treatment in an organization [18].

Against this backdrop, we suggest that signaling commitment to ethical AI as a part of CSR could signal desirable qualities about an organization and thus serve as a competitive advantage in attracting and retaining talent. Accordingly, we formulate the following research question: *How does signaling commitment to ethical AI impact organizational attractiveness?*

To answer this research question, we draw on signaling theory, CSR-, and organizational attractiveness literature [9, 18, 26] and follow a mixed methods approach to i) identify signals of commitment to ethical AI based on a review of corporate websites and an interview study and ii) examine the effect of these signals on organizational attractiveness in an online experiment. Here, we present our approach and first results for identifying ethical AI signals and the design for the online experiment. Our research will contribute to the conceptualization of CSR regarding ethical AI initiatives, empirically test the model of signaling mechanisms by Jones and colleagues [18] in a new context, and support managers of digital transformation processes when weighing the costs and benefits of ethical AI initiatives. It could present a strategy for *doing well by doing good* [12] and synergistically achieving instrumental (i.e., increasing profit through improved talent attraction) and humanistic (i.e., social welfare through a focus on ethical AI) outcomes when developing or deploying AI systems in organizations [cf. 27].

2 Research Design

2.1 Signaling commitment to ethical AI

To identify signals of commitment to ethical AI, we reviewed the websites of companies which i) develop and/or apply AI technologies and ii) are listed among “The 2021 World’s Most Ethical Companies” by the Ethisphere Institute. The rating evaluates the company’s i) Ethics and Compliance Program, ii) Culture of Ethics, iii) Corporate Citizenship and Responsibility, iv) Governance, and v) Leadership and Reputation based on company-reported data, supplementary documentation, publicly available information, and, if necessary, additional research. While it is not focused on ethical AI specifically, we expected that a software, IT- or technology organization ranking highly in these areas of ethical conduct is also likely to be committed to ethical AI. Thus, we expected that the online presence of such companies would provide informative examples for signaling commitment to ethical AI to relevant stakeholders.

From the 2021 list, we selected companies from the industries “Software & Services”, “Information Technology Services”, and “Technology” which indicated on their website that they develop or use AI technology (i.e., Infosys, wipro (IND), DellTechnologies, HewlettPackard Enterprise, IBM, leidos, Microsoft, Salesforce, workday (USA)). The websites of these companies were reviewed for information related to *costly* initiatives in the field of AI technology and ethics. According to signaling theory, a signal only conveys information to the recipient if it is costly. Otherwise, it could be acquired by anyone and thus would lose its informational quality [25]. Zerbini [26] developed an overview of CSR signals and distinguishes between dissipative costs (i.e., must always be paid for acquiring a signal, for example hiring an Ethics Officer) and penalty costs (i.e., must only be paid if signals turn out to be untrue, for example if a company is sued for not following its own code of ethics). Table 1 shows exemplary signals retrieved from the websites of IBM and Salesforce and their classification based on Zerbini [26].

To validate, prioritize, and potentially complement the list of identified ethical AI signals, semi-structured interviews will be conducted with each 3-5 individuals from i) Human Resources or Management, ii) Business Ethics, and iii) prospective applicants in the technology sector. The first part of the semi-structured interview includes questions about the background and position of the interviewee, the perceived relevance of ethical behavior of an organization in job choice, and if they can think of initiatives of organizations which make them appear more ethical to them. In the second part, the identified ethical AI signals will be discussed with four guiding questions: How do you perceive the costs or difficulty of implementing or acquiring the signal? How does the signal impact organizational attractiveness for you? How relevant do you consider the signal from an ethical or societal point of view? What would make this signal (in)sincere for you? The interviews will be transcribed and coded according to qualitative content analysis [28]. A subset of ethical AI signals will then be implemented on the website of a fictitious technology company called “Cladus” as a corporate website is often the first point of contact for job seekers.

Table 1. Examples of signaling commitment to ethical AI

Company	Observable Signals	Classification based on [26]; <i>new signals</i>
Salesforce	Chief ethical and ethical use officer and “Office of Ethical and Ethical Use of Technology” with advisory council	Ethics officer Ethics committee
	Guiding principles (e.g., privacy, safety) and AI ethics commitment (e.g., accountable, transparent)	Code of ethics
	Certifications, standards, regulations (e.g., ISO 27018 for data privacy)	Trust marks (certifications)
	Building awareness for employees (e.g., consequence scanning)	Training programs
IBM	AI ethics board, IBM Policy Lab	Ethics committee(s)
	Trust and transparency principles (e.g., augment- not replace, explainability)	Code of ethics
	Open-source software toolkits (e.g., AI Fairness 360 to find biases)	Corporate disclosure (knowledge sharing)
	European Commission Expert Group on AI, Global Partnership on AI, IEEE Global initiative on AI Ethics	Trust marks (memberships)
	TechEthicsLab (with University of Notre Dame) – research collaboration	<i>Research</i>
	Self-restriction not to develop general facial recognition software until legal framework is refined	<i>Self-restriction</i>

2.2 Impact of ethical AI signals on organizational attractiveness

The empirical evaluation of the website is based on the theoretical model by Jones et al. [18] as we investigate if the identified signals of commitment to ethical AI increase organizational attractiveness both directly and mediated by anticipated pride/organizational prestige, perceived value fit, and expected treatment. Additionally, as insincerity of the signals might torpedo the effect [26, 29], we include perceived signal quality as a moderator of the relationship. We formulate the following hypotheses (visualized in Figure 1):

H1a-c: Signals of commitment to ethical AI increase a) the anticipated pride/organizational prestige, b) the perceived value fit, and c) the expected treatment.

H2a-c: The effect of the signals of commitment to ethical AI on a) the anticipated pride/organizational prestige, b) the perceived value fit, and c) expected treatment is positively moderated by a high perceived signal quality.

H3a-c: The a) anticipated pride/organizational prestige, b) perceived value fit, and c) expected treatment increase the perceived organizational attractiveness.

H4: Signals of commitment to ethical AI increase the perceived organizational attractiveness.

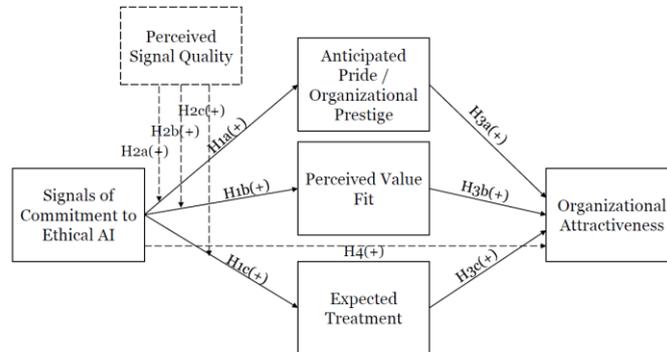


Figure 1. Adapted research model [18] of the effects of signals of commitment to ethical AI on organizational attractiveness

For the main study, we plan to recruit at least 200 participants (matching $N=180$ in Jones et al. [18]) who have an educational or professional background in IT. In a between-groups design, the participants will be asked to imagine that they are looking for a new job and want to evaluate if Cladus would be a suitable employer. There will be three groups with different websites: Group 1 (baseline), group 2 (ethical AI signals), and group 3 (ethical AI signals + general CSR information). This allows for quantifying the added value of ethical AI commitment. For realism, only positive and a multitude of ethical AI signals are included on the website. Other potentially relevant factors for job choice (e.g., salary) are mentioned on the website in all conditions. Following the methodological approach of Jones et al. [18] we use the same scales for measuring anticipated pride [30], perceived value fit [18], expected treatment [18], organizational attractiveness [31], and will derive questions for perceived signal quality from related measures. For analyzing the data, we aim to conduct multiple regression analysis including the examination of mediators and moderator effects as visualized in Figure 1. We also aim to examine potential group differences that might result based on the applied signals. Furthermore, as other studies found CSR to be especially important for attracting millennials [9] and women [22], we will consider individual demographics (age, gender, AI experience) to exploratively check for group influences.

3 Conclusion

This short paper proposes a study to address the research gap regarding the role of ethical AI as a part of CSR and a possible economic incentive for organizations to commit to ethical AI. Organizations drive AI innovation and use, and their choices have implications for society and individuals. On a theoretical level, the study will contribute to the understanding of signal-based mechanisms and organizational attractiveness by transferring Jones et al.'s [18] model to the context of ethical AI and additionally considering the role of perceived signal quality. It will also add to the conceptualization of CSR in research to include ethical AI and potentially add types of signals (e.g., self-restriction) to existing overviews [26].

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