

# DIGITAL PLATFORMS AND DIGITAL INEQUALITY- AN ANALYSIS FROM INFORMATION ETHICS PERSPECTIVE

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## ABSTRACT

Digital platforms are information technology artifacts that erode established market structures by providing a digital interaction space for producers and consumers. Therefore, it is argued here that digital platforms inherently support digital divide. This potential, if not governed or made visible for the involved actors, can lead and is already leading to undesired societal and ethical consequences. To derive these insights, Information Systems (IS) perspective is enriched with the Information Ethics approach and terminology. This interdisciplinary view allows considering both the technical and the social side of the problem. The analysis of interactions and roles is performed using the four ethical issues identified by Mason as a general taxonomy of ethical concerns in IS context. The identified aspects offer insights on the potentials of digital platforms that fosters digital inequality. Power asymmetries between the digital platform and its users are identified, outlining their potential for manifestation of the digital divide.

## KEYWORDS

Digital platforms; Information Ethics; digital inequality.

# 1 INTRODUCTION

Digital platforms are increasingly present in the discussions in public media but also in Information Systems (IS) research (Reuver, Sørensen and Basole, 2018). Their influence is reaching beyond technical aspects to economic and social debates (Reuver, Sørensen and Basole, 2018). Thus, one of the challenges in platform research, is their complex and intertwined structure on technical but also social levels.

This research augments the platform research agenda by extending the question about the platform design with the focus on ethical implications of the design decisions. To do so, the background of Information Ethics (Floridi, 1999) is applied to analyze platform governance aspects using the four categories of ethical issues in Information Systems as described by (Mason, 1986). In order to effectively shape the digital artifacts and the digital society as a whole in a socially and ethically responsible way, it is crucial to have a clear understanding of their ethical implications. As a result, an overview of the potential ethical issues relevant for platform actors is provided. The identified aspects offer insights on the dominance potential of digital platforms for digital inequality. This result can be used to provide ethical platform governance creation for digital platforms that minimize the potential for digital inequality.

## 2 DIGITAL PLATFORMS, THEIR GOVERNANCE AND INFORMATION ETHICS

Digital platforms are often positioned as a digital ecosystem, see e.g. (Tiwana, 2013; Schreieck, 2016). An ecosystem in the ecology context is defined as a dynamic complex of communities and their environment that interact with each other as a functional entity (Schulze, Beck and Müller-Hohenstein, 2005). In the digital context the other communities are: platform provider, platform user as well as application and

data providers, i.e. content providers. These elements are interacting towards the preservation and success of the platform that is measured by e.g. the frequency of platform visits (Bosch, 2009), the number of applications being hosted and used (Kim, Kim and Lee, 2010; Haile and Altmann, 2013) or the online traffic being generated towards the platform (Evans and Gawer, 2016). As platforms are affected by network effects, the success of a platform is determined by having enough participants on the development side to attract the customer side and vice versa. These stakeholder interests need to be aligned by governance (Wheelwright and Clark, 1992; Golding and Donaldson, 2009). Therefore, the governance of the platform is a crucial aspect of platform creation and successful operation. (Schreieck, 2016) divides the design and governance concepts of a platform ecosystem as: roles, pricing and revenue sharing; boundary resources; openness; control; technical design; competitive strategy; trust. In this paper, the addition of the ethical dimension as a governance concept based on the information ethics approach is suggested. To do so, the concepts from Information Ethics are applied to conduct the analysis and examine the results.

Information ethics is concerned with the morality of the information society (Kuhlen 2004; Floridi 2015; Bendel 2016). As an operationalization of these principles, the analysis of interactions and roles on a digital platform is performed using the four ethical issues identified by (Mason, 1986) as relevant for developing and using IS as a general taxonomy of ethical concerns. These four dimensions for ethical vulnerability of information are: privacy, accuracy, property and accessibility. It is argued here that the platform designers and providers are able to distribute their power along these dimensions to potentially diminish user influence on the platform interactions. Hence, power asymmetries between the digital platform and its users are identified, outlining their potential for manifestation of the digital divide.

### 3 ETHICAL ISSUES AND DIGITAL PLATFORM GOVERNANCE

Digital platforms bring together supply and demand via smart assessment mechanisms and create a trusted environment by facilitating transactions. This constellation favors the potentials for power asymmetries leading to ethical issues. Table 1 summarizes an excerpt from the potentials for exercising power asymmetries between the platform and the users or content providers. Platforms can decide unilaterally to deny a user access to the platform. This is the case at service platforms, e.g. Uber where the drivers need to have a specific rating to be able to participate (Cook, 2015). Applied technology is also a factor in the access governance. By setting a technological standards, e.g. APIs or specific software development language, the platform manifests an asymmetrical relationship on the level of accessibility for content providers (Royackers, Timmer, Kool and van Est, 2018). Moreover, platforms tend to collect user data in the first step of the registration process. By defining the mandatory data fields, the platform defines the accessibility possibility for users. Via the profile settings, e.g., the platform exerts the power over privacy and accessibility issues for users. While the user is the source of the accuracy of his/her data, the platform decides about the verification rules. The user is participating in the process of the disclosure of his/her data, partly due to the relatively new (regionally focused) legislation such as GDPR<sup>1</sup>. The most potent but also a rarely read (Obar and Oeldorf-Hirsch, 2016) document governing these issues, is the terms of use document, where the above-mentioned aspects such as mandatory profile data, content visibility, copy rights or technology standards for content presentation are governed. Only recently the potential of its misuse became regulated by the legal efforts such as

GDPR and the digital copy right rules. Despite the appeals form different sources (Briegleb, 2018) this first regulations are still limited to the European region.

Privacy	Accessibility	Property	Accuracy
Registration or profile data	Role-based access	Terms of use	Accumulates user data
Visibility of profile	Content recommendation	General terms	Processes data
Data security	Membership conditions	User generated content	Enriches data
Website tracking	Banning conditions	Hardware infrastructure	Authentication
Data processing	SignIn-conditions ...	.....	....

**Table 1. Potentials for power asymmetries on the platform along the IS ethical issues dimensions (excerpt).**

The concerns mentioned above and in Table 1 show the ethical issues and their implementation via the platform. It is essential to understand these aspects when designing and participating in a successful platform.

### 4 CONCLUSION

This short overview shows that from the user's point of view informational autonomy, privacy and balance of power are at risk when the governance of the interactions on the digital platform are left to their own devices or to the platform provider. It was outlined that digital platforms can foster inequality in information provision by controlling access for both content provider and user via access criteria to the platform, content visibility as well data collection and processing definitions. These arguments provide a basis for further discussion of the power asymmetry potentials between the user

<sup>1</sup> GDPR: EU General Data Protection Regulation

and the platform as well as on digital divide based on information access management.

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