

# Towards a Utility Theory of Privacy and Information Sharing: The Introduction of Hyper-Hyperbolic Discounting

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## ABSTRACT

Sustainability management has originally and—to this day—primarily been focused on environmental aspects. Today, enormous data storage capacities and computational power in the e-big data era have created unforeseen opportunities for big data hoarding corporations to reap hidden benefits from an individual's information sharing, which occurs bit by bit over time. This article presents a novel angle of sustainability, which is concerned with sensitive data protection given by the recently detected trade-off predicament between privacy and information sharing in the digital big data age. When individual decision makers face the privacy versus information sharing predicament in their corporate leadership, dignity and utility considerations could influence risk management and sustainability operations. Yet, to this day, there has not been a clear connection between dignity and utility of privacy and information sharing as risk management and sustainability drivers. The chapter unravels the legal foundations of dignity in privacy but also the behavioral economics of utility in communication and information sharing in order to draw a case of dignity and utility to be integrated into contemporary corporate governance, risk management and sustainability considerations of e-innovation.

## KEYWORDS

Behavioral Economics, Corporate Governance, Dignity, Ethics, Governance, Managerial Decision Making, Risk Management, Sustainability, Utility, Value

DOI: 10.4018/IJSITA.2019010101

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## 1. INTRODUCTION

Until recently, there was no stringently utility theory of information sharing and privacy (Puaschunder, 2018). We still lack a coherent decision science framework about when people choose to share information and when they rather want to stay silent for the sake of privacy. In the digital age, to study the trade-off between information sharing and privacy has leveraged into unprecedented importance. Social media revolutionized human communication around the globe. As never before in the history of humankind, information about individuals can be stored and put in context over time and logically placed within society thanks to unprecedented data conservation and computational powers. The big data era, however, also opened gates to unprecedentedly reap benefits from information sharing and big data generation (Puaschunder, 2017). The so-called nudgital society was recently introduced, shedding light onto the undescribed hidden social class division between social media users and social media providers, who can benefit from the information shared by social media users (Puaschunder, 2017). Social media users share private information in their wish to interact with friends and communicate to public. The social media big data holder can then reap surplus value from the information shared by selling it to marketers, who can draw inferences about consumer choices. The big data can also be used for governance control purposes, for instance border protection and tax compliance control.

Drawing from the economic foundations of utility theory, Puaschunder (2018) introduced the first application of utility theory to a preference-values predicament between communication and privacy in the new media era. Behavioral economics insights were advanced in shedding novel light on the conflict between the humane wish to communicate now versus combined information held by unknown big data compilers in the future. An exponential loss of privacy and hyper-hyperbolic risks in the future for the information sharer was introduced as behavioral economic decision-making fallibilities. For the overconfident information sharer, it remains largely unforeseeable what the sum of the individual information sharing tranches can lead to over time and what information its *Gestalt* holds for those who have big data insights over time, which can also be analyzed in relation to the general population. Governance gains a critical stance on new media use for guiding on public concerns regarding privacy and information sharing in the digital age (Puaschunder, 2017). In the emerging social sciences literature on privacy and information sharing in the age of social media, the dignity of privacy and utility of information sharing predicament has not been addressed under the wing of corporate governance yet.

Corporate governance accounts for the system of rules, practices and processes by which a firm is directed and controlled. Corporate governance involves balancing the interests of many stakeholders and future-oriented addresses conflict potentials in order to breed harmony and efficiency throughout a firm. To this day, the privacy and information sharing predicament has gained limited attention by corporate governance specialists. Dignity of privacy and utility of information sharing are hence argued to be integrated into corporate governance techniques in the domains of risk management and sustainability considerations.

The article is structured as follows: An introduction of the theory of utility and communication and information sharing is followed by an outline of the impetus of the digital big data age on privacy. The utility theory of information sharing, and privacy will be theoretically introduced. Hyperbolic decision making fallibility will become the basis of argumentations around hyper-hyperbolic discounting – the novel argument that information sharing in tranches may lead to an underestimation of the privacy infringements when these bits of information can be put together over time and are compared to big data in order to infer about the individual in relation to the general population (Puaschunder & Schwarz, 2012). The outlined privacy and information sharing predicament in the digital big data age will be grounded in a bigger societal trade-off between dignity and utility, which are therefore then argued to be integrated into corporate risk management and sustainability means (Puaschunder,

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