The Influence of Business Incentives and Attitudes on Ethics Discourse in the Information Technology Industry

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Abstract

As information technologies have become synonymous with progress in modern society, several ethical concerns have surfaced about their societal implications. In the past few decades, information technologies have had a value-laden impact on social evolution. However, there is limited agreement on the responsibility of businesses and innovators concerning the ethical aspects of information technologies. There is a need to understand the role of business incentives and attitudes in driving technological progress and to understand how they steer the ethics discourse on technology. In the information technology industry, there is an observed trivialization of ethics supported by a business driven and technology-centric approach to ethics. This trivialization rests on hardened beliefs, ideologies, and arguments which hint at reduced accountability for business and tend to individualize social responsibility. The phenomenon of ethics trivialization needs to be duly addressed to resolve the tensions between business needs and ethical concerns. This paper has identified from literature and conceptually analyzed the beliefs and ideologies underlying ethics trivialization which undermine ethics in business contexts. The paper has attempted to address the business concerns indicated by this phenomenon as well as highlight the weaknesses of its assumptions, rhetoric, and justifications. The aim of this paper is to systematically present the justifications in favor of and against the practice of ethics trivialization in the information technology domain, thereby highlighting the need to develop frameworks for assessment of ethical responsibility, accountability, and democratization of the value trade-offs involved in the design of technologies.

Keywords Information technology · Ethics · Business ethics · Technology companies · Ethical responsibility · Policy

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1 Introduction

Information technologies have seen rapid advances in recent decades and have become synonymous with progress in modern society. However, several ethical concerns have surfaced in literature about their large-scale and long-term consequences. In the public discourse, social media has borne the brunt of criticism for problems like hate speech and misinformation (Dwoskin and Telford 2020; Travers 2020), while academic literature has sought to identify the causal interaction between technology and societal changes of ethical relevance (Gonzales and Hancock 2011; Lemmens et al. 2011). A wide range of technologies that fall under the "information technology" umbrella have invited interest from an ethical perspective. For example, a review of research on the ethics of big data technologies shows that there are concerns about privacy, autonomy, fairness, and individual and group-level harms which need to be addressed, before the large-scale proliferation of these technologies (Mittelstadt and Floridi 2016). There is significant literature on persuasive technologies and their role in undermining human autonomy (Fogg 2003; Greenberg et al. 2014; Lanzing 2019; Verbeek 2009). Information addiction in its various forms has invited significant research for its negative impact on psychological well-being (Bawden and Robinson 2009; Kuss and Griffiths 2011; Turkle 2017). Profiling and surveillance techniques have been criticized as being discriminatory in real-world contexts such as policing, with possibly severe implications for marginalized groups (Datta et al. 2015; O'Neil 2016). Some of these problems are rather severe and urgent, and they have sparked extensive philosophical discussions, technological analyses, and political commentary.

This paper analyzes the business perception of these ethical issues. In the last few decades, many novel information technologies have become commercialized, and others are on the brink of commercialization. However, there is limited agreement in the public and policy discourse on the responsibility of businesses and innovators concerning the ethical aspects of their technologies. Businesses have traditionally sought the perception of neutrality when it comes to socially relevant issues, but historically they have never had such an unquestionable value-laden impact on society as they do in present times. Therefore, it is important to understand the perception of ethics within business contexts and to understand how business metrics, incentives and attitudes drive the growth of technology as an economic product. The paper acknowledges that an "information technology business" could refer to a wide range of companies which own social media websites, advertisement engines, search engines, video streaming websites, online service aggregators, direct-to-consumer software and hardware products, etc. in the market. It has been deliberately chosen in this paper to not narrow down on a specific ethical problem within a specific business, to be able to discuss the general perception of business toward ethics in the information technology industry.

This paper presents a critical discussion on the perception of ethics in the information technology business. Within the industry, it has been observed that innovators tend to trivialize ethics as an endeavor and understate the ethical concerns about various information technologies and their business models. The existence of this phenomenon of ethics trivialization has been reported previously in academic literature. Bietti (2019) critiques that the term "ethics" has been weaponized in industry circles in support of deregulation and hands-off governance, and ethics has come to be confused with

appearances of ethical behavior. Wagner (2018) argues that in the information technology industry, ethics is increasingly seen as the soft or the easy option as opposed to hard regulation. It has been observed in the industry that technological innovation is primarily business-driven, such that even "ethical" solutions are profit-oriented (Metcalf et al. 2019). There have been challenges in gaining acceptance for ethical responsibility from business stakeholders. Flyverbom et al. (2019) discuss that information technology companies have received much lower levels of public scrutiny relative to traditional companies such as apparel or phone manufacturers. They argue that part of the reasons for this are the relative youth of the companies and their free services. Another substantial reason could be the nature of the business ecosystem in which business models are fuzzy, and there is an emergent role of the consumers themselves as value creators.

The trivialization of ethics justifies a laissez-faire attitude toward ethical interventions into technological development. The authors argue that this is problematic for many reasons. The past few decades have seen enormous developments in the information technology domain, and the law has not kept up with these developments (Marchant et al. 2011). In fact, the industry has undertaken major political lobbying efforts in favor of deregulation (Romm 2020). There seems to be an ethics vacuum in the industry at a time when information technologies have transcended their role as tools and are pervasively embedded in socio-economic systems (Taylor 2021). With advances in interactive computing and artificial intelligence, in some contexts, technologies have literally assumed agentic roles (Floridi and Sanders 2004). The authors argue that the present ethics discourse within the industry is insufficient to address the ethical problems at hand. There is a need for businesses, as individual entities, and the industry, as a whole, to take explicit and active ethical responsibility for their technologies to a reasonable extent (Berdichevsky and Neuenschwander 1999). At the very least, it is necessary that the ethical disinclinations of the industry do not hamper the policy discourse on the topic or undermine regulatory efforts. Therefore, there is a need to question the rational and normative validity of the phenomenon of ethics trivialization.

This paper aims to analyze the underlying justifications of ethics trivialization in the information technology business. These prevalent justifications rest on several beliefs and ideologies, which have been identified from literature, including both academic research and mainstream journalism. This paper identifies the conceptual structures of these underlying justifications and groups them into four categories. Within each of the four categories, the authors form their own descriptive and normative interpretations about the justifications involved in ethics trivialization and make inferences about how each argument can steer, influence, or undermine the ethics discourse on technology. For each of the four categories, the paper takes the approach of critiquing the foundations of ethics trivialization based on established academic consensus and philosophical arguments. The main objective of the paper is to argue that the phenomenon of ethics trivialization often rests on personal ideologies, rhetoric, misconceptions, and prejudices. The authors posit that the establishment of these arguments against ethics trivialization is a necessary requirement to facilitate the discussion about the ethical responsibilities of technology businesses.

This paper is structured in the following manner. In the next section, we describe how the terms "ethics" and "morality" have been conceived in philosophical literature,

and we discuss their normative role. This is followed by a discussion about what it means for businesses to be ethical and what dimensions of business activity have invited ethical study in the past. In the following section, an introduction to four identified categories of justifications for ethics trivialization in business contexts has been made. Within the same section, the four sub-sections analyze the underlying structures of these justifications. Then the discussion section which follows discusses the policy implications of this obvious tension between business metrics and society's long-term benefits. Finally, in the last section, the paper offers its conclusions regarding the analysis presented in this paper and discusses the future implications for public and policy discourse on information technology ethics.

2 The Normative Role of Ethics and Morality

In philosophical literature, morality has been discussed in a descriptive sense and a normative sense. In the descriptive sense, morality has been understood as a sanctioned or an accepted system of conduct put forward by a group or accepted by an individual for their own behavior as they exist in a given society (Gert and Gert 2020; Haidt 2006; Lee 1928). Descriptive moralities describe moral actions or moral conduct as it is conceived by a group in actuality. In the descriptive sense, moralities almost always contain features such as a concern for purity and sanctity, in-group loyalty and accepting authority, etc. In the normative sense, morality refers to a system of conduct that, under specified conditions, would be put forward by all people, meeting certain intellectual and volitional conditions, almost always including the condition of rationality (Gert and Gert 2020). Any individual meeting these standards is regarded as a moral agent, that is, an agent capable of making moral choices. Even though it has been difficult to define the subject matter of morality, it appears that normative approaches to morality are concerned with the specific issues of "right" and "wrong" within interpersonal interactions (Gert and Gert 2020; Bietti 2019; Lee 1928). Normative morality seeks to understand as moral actions *ought* to be, not as they are.

Ethics as a branch of philosophy is an ordered, systematic, critical, and rational investigation of the content of morality based on a given set of theoretical principles (Lee 1928). Philosophy is not conduct or action, but systematic and scientific reflection, and therefore, ethics and morality are not on the same plane of definition. Ethics is about bring structure, consistency, and justification to the investigation of moral conduct. The study of ethics not only attempts to discover the theoretical principles underlying the evaluation of moral conduct but also criticizes the rational adequacy of these principles. This role of ethics is normative. Finally, as the study of ethics may not discover any existing principles for the evaluation of moral conduct which are rationally adequate, its function is also to formulate such theoretical principles which would be rationally adequate.

In philosophy, ethical reflection and theorizing is done through approaches which rely on a range of fundamental premises. In any context, it is the approach to ethics which translates into a guide for action. Within normative ethics discussions, the consequentialist approach relies on the consequences of an action to establish its ethical status (Walter 2019). Consequentialism focuses on maximizing the good and, hence, the need to define a "good" consequence becomes imperative to establishing ethics

using this approach. This "good" can be characterized in terms of human rights or average welfare, and it can also be considered to include the fair distribution of welfare. A second contrasting approach to arrive at the normative ethical status of an action is to analyze it through rules which do not rely upon the consequences of the action. This is known as deontological ethics, which are based on the premise that ethics of conduct are not justified by the ends alone, and actions have intrinsic ethical status based on a sense of duty or obligation (Alexander and Moore 2020). A third approach to guide ethical conduct is through the concept of "virtues" (Hursthouse and Pettigrove 2018). Within this approach, the "virtue," such as benevolence or kindness, becomes the guide to ethical action, rather than the consequence or the rule. It is posited here that consequences, rules, and virtues hold the promise of ethics in different shades depending upon the different contexts of the ethical conduct within business activities. Each of these approaches can provide different perspectives within any business or technology context to arrive at an ethically compelling guide of conduct. For example, Bietti (2019) discussed the ethical aspects of surveillance using all these three approaches to demonstrate that it is possible to arrive at a guide for ethical conduct via multiple routes and lines of reasoning.

Throughout this paper, the terms "ethics" and "morality" have been used in a normative sense. To discuss the relevant aspects of business conduct, the authors have preferred to use the term ethics. The phenomenon of ethics trivialization is a critique of ethics itself. It does not just criticize the adequacy of context specific moral codes such as professional codes of conduct. Ethics trivialization is a critique of the philosophical act of reflection, of its adequacy as well as its utility within the information technology business contexts. However, due to linguistic reasons, the term "moral" has also been used on a few occasions to bring forth existing concepts from literature such as "moral corruption," "moral hubris," etc., since these concepts do not have a linguistic parallel in the ethics domain. It has been argued in this paper that ethics has sufficient normative strength to inform business decisions and that the trivialization of ethics essentially undermines the role and ability of normative ethics to guide business conduct. This phenomenon is discussed in detail in this paper, along with its underlying claims and reasonings. Through their counterarguments against ethics trivialization, the authors seek to defend ethics and ethical theorizing as an appropriate normative guide for business conduct.

3 Business as a Moral Agent

A business can be understood both as an organization and an activity (Moriarty 2017). The ethics of business can hence be understood as the study of the ethical dimensions of business organizations and commercial activities. This can include the ethical analyses of the production, distribution, marketing, sale, and consumption of goods, and services (Donaldson and Walsh 2015). The field of business ethics deals with questions such as who should manage firms, in whose interests, what firms owe their workers and what workers owe the firm, how firms should engage with customers, the role of firms in solving social problems, the responsibility of firms for their business partners and suppliers, their role in the political process, etc. (Moriarty 2017).

In this section, we discuss how the role of business as a moral agent has been conceptualized in literature. This elaboration is important to outline what it means for business entities to be moral agents and exactly what it means for business conduct to be deemed ethical. It has been argued that firms are morally responsible for what they do and that they are "moral agents" (French 1979, 1984). The attribution of moral agency to firms is reflected in everyday language, when the public or media holds them responsible for intentional or inadvertent harms to consumers or society (Moriarty 2017). This view that firms are moral agents is held by several scholars (Copp 2006; Hess 2014; List and Pettit 2011), and it also has strong intuitive appeal. On the contrary, many scholars deny that firms can be moral agents, since they lack the intentionality required for agency (Gilbert 1989; Miller 2006; Rönnegard 2015). These scholars advance the idea that firms are constituted by a group of individuals, and hence, these individuals are moral agents, not the firm itself. Although this discussion about the moral agency of the firm has invited theoretical interest, Hasnas (2012) has argued that very little depends on the resolution of this fact. On the other hand, it has been argued that oftentimes, it is impossible to attribute responsibility of the firm's actions to individuals within the firm, in which case it must be attributed to the firm itself (Phillips 1995).

The field of business ethics is concerned with the moral constraints that businesses must observe to achieve their ends. Various frameworks have been advanced in literature for businesses to be able to devise this "right" and "wrong" in business activity (Moriarty 2017). The virtue ethics approach advances the idea that business as a practice has certain intrinsic goods which require the cultivation of business virtues (Alzola 2012; Moore 2005). The Kantian approach in business relies on the ideology that humanity should always be treated as an end, never as a means, and hence, it criticizes deception, cheating. and manipulation through a deontological lens as violations of human dignity (Arnold and Bowie 2003; Bowie 1999; Smith and Dubbink 2011). Rawls' (1971) theory of justice has also been used to identify normative ethical suggestions for business, arguing for fair power structures (Arnold 2012), opportunity to perform meaningful work (Moriarty 2009) and alternative forms of corporate governance and ownership (Norman 2015; O'Neill and Williamson 2012; Singer 2015). Another approach to normative business ethics is known as the market failures approach, which argues that it is the obligation of business to not exploit the market failures that the law allows them to exploit (Heath 2014). While applying any of these normative approaches is a useful way to do business ethics, often the more common approach is to identify a business activity and analyze it using intuitions and principles of normative ethics (Moriarty 2017).

Indeed, there are a range of business activities that have invited a study of their ethical dimensions. These activities include the sale and purchase of exploitative items (MacDonald and Gavura 2016; Sandel 2012; Satz 2010), product safety and liability (Velasquez 2012), deceptive advertising (Child 1994; Attas 1999), manipulative advertising (Brenkert 2008; Coons and Weber 2012; Galbraith 1958), sales and negotiation techniques (Carson 2010), pricing techniques (Elegido 2011; Marcoux 2006; Snyder 2009); discrimination in hiring and firing (Hellman 2008; Lippert-Rasmussen 2014), employee compensation (Boatright 2010; Moriarty 2005; Powell and Zwolinski 2012; Sternberg 2000), etc. Within the information technology domain also, such business activities have attracted ethical study and scrutiny. For example, the design

of addictive technologies (Schull 2012), big data technologies which can severely compromise user privacy (Mittelstadt and Floridi 2016); discriminatory decision making for consumers and citizens (Noble 2018; O'Neil 2016), and many other issues continue to invite critical ethical analyses (Fabris 2018). It is for these concerns that a critical discussion on the phenomenon of ethics trivialization is important to facilitate the study of the ethical dimensions of various information technologies and the business models which have emerged to commercialize these technologies.

4 Trivialization of Ethics: Four Justifications

The authors have proposed in this paper to categorize the justifications of ethics trivialization by business stakeholders into four categories. This structuring has been done to serve two purposes. First, it helps identify each of the different types of beliefs and ideologies in detail and in isolation from other reinforcing claims. It was felt important that ethics trivialization be examined one claim at a time, thereby helping in the elaboration of a phenomenon which till now has been presented as a singular general trivialization or devaluation of ethics in business focused mainly on the critique of the nature of ethics itself (Bietti 2019; Stark 1993). Second, each of the prevalent justifications has evolved and morphed across time, business types, contexts, etc., thus making it difficult to isolate the fundamental basis of each claim. This categorization will help identify the underlying beliefs and ideologies and their many flavors separately.

The four categories that this paper has identified have been named as "dismissal," "denial," "deflection," and "defense." The "dismissal" justifications tend to dismiss the relevance of the ethics discourse altogether based on a perceived incompatibility of ethics with business or technology. The "denial" justifications deny the necessity of ethics based on other ideologies and value systems which take priority as a source of conduct. The "deflection" justifications influence the ethics discourse by understating the ethical responsibility of business and deflecting it toward other actors in the market ecosystem. The "defense" justifications attempt to vindicate current business practices and market norms, making a case for no urgent requirement of extrinsic ethical interventions.

In each of the four sub-sections that follow, each category has been discussed in detail. The sub-sections include, firstly, an identification of the beliefs and ideologies which underlie ethics trivialization from literature. This is followed by the authors' interpretations about how each kind of ethics trivialization undermines the ethics discourse. Each sub-section is closed with counterarguments made by the authors against the claims of ethics trivialization by highlighting their weaknesses in the form of rhetoric, misconceptions, unfounded ideologies, and inaccurate facts.

4.1 The "Dismissal" of Ethics

The first set of justifications that have been used in the information technology business attempt to dismiss the relevance of the ethics discourse altogether. The dismissal of ethics can be premised on both business-centric and technology-centric views, and we discuss both one by one. These business-centric and technology-centric views

underlying the dismissal of ethics may not be comparable with each other, but they have the common effect of sidelining ethics as an achievable endeavor. Business-centric views tend to dismiss ethics and philosophy by criticizing it for being abstract and inaccessible to large audiences. They argue that it is impossible to achieve ethics in its intent within business practices. Technology-centric justifications are premised on the argument that technology is inevitable and uncontrollable, rendering the ethics discourse automatically, if not willfully irrelevant. In the following paragraphs, we shall attempt to build evidence for the existence of these views within the industry, and then counter them.

First, the belief that ethics and philosophy are abstract and inaccessible is widely held (Bietti 2019). The abstraction of general ethical principles appears insufficient in business contexts to make sense of urgent problems being brought into existence by novel technologies. Within the industry, the field of philosophy is thought of as being incapable of providing prescriptive assistance and is believed to fall short in its ability to address time-sensitive issues. According to individuals engaged in the information technology industry, ethics appears to be too vast a problem to tackle (Metcalf et al. 2019). Over the past few decades, even though there have been significant attempts to incorporate ethics in business curriculum (Bishop 1992; Petrick et al. 2011; Pizzolatto and Bevill 1996), it is not without critique of its intent and effectiveness (Baetz and Sharp 2004; McDonald and Donleavy 1995; Reynolds and Dang 2015). In actual practice, philosophy appears bewildering and even off-putting to innovators and business managers (Beversluis 1987; Metcalf et al. 2019; Stark 1993).

The natural outcome of such a critique of ethics is to claim that the ethics discourse is not relevant to business. It implies that ethics is incompatible with practical metrics in business contexts, and hence, ethical intentions cannot be translated into business activities. This view presents normative ethics as unattainable in practice. The authors argue that this view is dismissive of ethics in its entirety, and it prevents innovators from engaging in the ethics conversation altogether.

Here, we present some counterarguments to this critique. It has been argued before that the abstraction and slowness of ethical inquiry is a less powerful critique than it appears. Bietti (2019) sought to defend these qualities of philosophical reasoning as strengths, arguing that the abstraction of ethics can help shield ethical thinking from pragmatic pressures and the slowness of the process brings more depth and iterated perspective into ethical inquiry. Higher-level abstractions are invaluable to arrive at workable and ethically compelling solutions such as for the trolley problem in autonomous vehicles. However, it is argued here that this defense does not go far enough. The reason that the abstraction and slowness of ethics may appear incompatible with the practical business needs is because of how incentive structures are designed in business contexts. When the notion of ethics is computed as an operational cost, and the goal of businesses is to minimize costs both in time and money, it appears that ethics is fundamentally incompatible with business. If ethics were to be understood not as an accompaniment over an already complete product, but as the fundamental value system within which technologies are designed, the process of ethical inquiry automatically seems to gain relevance. The authors also acknowledge the competitive and institutional pressures which lead to the difficulty of the ethical pursuit. However, the typical understanding of these pragmatic pressures being more "real" world than their ethical implications may be misleading. The societal implications of technologies, such as the

violence provoked by hateful content, is as real world as the pragmatic business pressures to extract profits from hateful advertisements. It may be helpful for businesses to view ethical inquiry as a medium of pursuit of valuable ends, rather than as an imposed abstraction of values which are impossible to realize in the real-world.

It is acknowledged here that business managers may be right in their criticism that the practical assistance received in business from philosophy in the form of practitioner codes of conduct is not at par with other fields such as medicine or law (Hazard Jr 1991; Herring 2014). Ethical frameworks do provide more freedom to business practitioners to identify the ethical course of action, as reflected in various frameworks (Stilgoe et al. 2013). However, there are entire fields of business ethics and responsible innovation dealing with practical dilemmas that businesses face (DeGeorge 2003; DeGeorge 2014; Owen et al. 2013). Numerous perspectives have also been developed specifically about ethical concerns and dilemmas in the domain of information and communication technologies (Fabris 2018; Floridi 2013; Mittelstadt et al. 2016). In light of this literature, the claim that ethics is not prescriptive enough in business contexts appears to be rather prejudiced. This paper does not go into the historical reasons for why business practitioners have more freedom to determine the nature of ethical conduct compared to some other professions. This freedom may be reflective of the severity of consequences associated with fields such as medicine or the law. It may be a product of how economies have evolved historically within different cultures (Crane and Matten 2004). However, this non-prescribed ethical freedom does not automatically render philosophical reasoning irrelevant. It is only an acknowledgment of the fact that ethical decision making may involve value trade-offs, and businesses have a responsibility to verbalize the nature of those trade-offs embedded in technology for the benefit of their consumers and the society at large (Verbeek 2006).

Second, within the technology-centric views that are dismissive of ethics, it is a common belief held by innovators that technology is a metaphorical agent beyond meaningful human control and that technological progress is inevitable. These narratives have led the account for large-scale technology-driven social changes, such as automation and its effects on the nature of jobs, and the implications of the information ecosystem for online privacy (Eveleth 2019; Lee 2016; Sprenger 1999; Warner 2011). Technology is projected in the public discourse as inevitable by analogizing information and data to "food and fuel," "water or oil," "toxic or radioactive" (Stark and Hoffmann 2019). The narratives of technological inevitability surface not just in ontological discussions about technology but are also presumed in research and development without any justifications of such inevitability (Murdoch and Detsky 2013).

The claim of technological inevitability appears to be that it has become impossible to stop (or even steer) technological innovation. Because of this reason, these claims suggest that ethics and ethical theorizing are incompatible with the fundamental nature of the growth of technology. The metaphorical and naturalistic accounts of technological growth seem to have turned into ideological claims, without much evidence provided for such comparisons. This paper argues that when technological inevitability becomes an ideological claim instead of an empirical one, it becomes dismissive of ethics. In its ideological form, it suggests that technology has a life and ethic of its own and that ethics as normally understood are incompatible with technology.

This paper counterargues that metaphorical representations of information, data, technology, and progress need to be separated from ethical considerations, and each technology needs to be assessed on its own merit. In mainstream journalism, the premise of technological inevitability has been critiqued as flawed because it is indefensible in theory and poses the danger of being interpreted as per convenience (Doctorow 2010). Stark and Hoffmann (2019) discussed how data and information metaphors tend to highlight certain aspects of technology and obscure others. They influence the nature of meaning associated with technology and may provide only a partial view. Metaphors risk undermining the ethics discourse based on the obviously distorted understanding that emerges from the likening of one thing to another. Even though metaphorical representations of technology make it appear as if technology is inevitable, the separation of metaphors from the assessments and understanding of the real nature of technology is more suited to provide valuable insights into issues of ethical relevance, instead of dismissing them altogether. It is argued here that only when technological inevitability is abandoned as an absolute claim, it might become possible for businesses and innovators to see that the point of the discourse on ethical or responsible innovation is not to stop technological progress, but to steer it in a responsible and desirable direction with regards to societal challenges (von Schomberg 2013).

To sum up, this section has highlighted that the business-centric and technology-centric views which dismiss the ethics discourse are inextricably intertwined with business motivations, incentives and outlooks. They are based on beliefs and ideologies which do not reflect the true nature of ethics. While there is a definite opportunity to attune philosophical work to be more prescriptive in business contexts, it is paradoxical to ask for it to bend for pragmatic concerns. It is argued here that ethics and moral philosophy are relevant in business contexts to inform the ideological foundation of the information technology industry which is overwhelmed with value-laden technologies. As for ideological claims about technological inevitability, the authors have argued that technological progress needs to be thought of as something that arises from planned, strategic action, rather than something that happens naturally on its own. There is an opportunity to step back from an outlook that projects helplessness by emphasizing the inevitability of technological progress and endorse a more socially and ethically considerate approach to the development of technology.

4.2 The "Denial" of the Necessity of Ethics

The second category of justifications which underlie ethics trivialization deny the necessity of ethics owing to other value systems, which take priority as a source of conduct. The denial of ethics also tends to question the relevance of ethics, but the difference compared with the dismissal category is that denial rests on alternate ideologies as the source of conduct. The underlying beliefs in the dismissal category were more absolute in nature as compared with the forthcoming justifications in this category. The business-centric justifications of denial are rested on the ideology of market fundamentalism. Market fundamentalism is a belief in the market processes as a superior guide for actions in business contexts. The technology-centric justifications of denial are rested on the innovators' ideology of technology as a superior solution to technical, social, and ethical problems. This is known as technological solutionism. We

will discuss both these ideologies one by one, each followed by our counterarguments against their validity.

First, a fundamental belief in the superiority of market processes has profoundly shaped the ethics discourse in the information technology industry (Duff 2016). There is a prevalent notion of market fundamentalism which posits that if firms were allowed to pursue their self-interest and maximize profits, it would automatically lead to general societal well-being (Stiglitz 2009). Market processes exert a dampening pressure on ethics initiatives, as articulated by ethics owners in interviews conducted by Metcalf et al. (2019). This notion is reflected in business activity because companies are willing to engage in all any legally unprohibited business activities to maximize profit. The business ideal of shareholder value maximization, which is understood to be an integral aspect of business ethos, is also derived from the notion of market fundamentalism (Lazonick and O'Sullivan 2000). It proposes that since market processes are more efficient, shareholders will be more efficient in allocating resources than business managers. And therefore, if business managers adhered to the goals of shareholder value maximization, markets would operate as close to ideal, leading to general societal well-being.

The claim of market fundamentalism as an ideology is that ethics or philosophy are not relevant to business if they are not dictated by market processes. Within this view, the market becomes the guide for business conduct toward achieving the desired business ends. This view suggests that businesses cannot observe ethical constraints if they are not dictated by market mechanisms. Market acceptance appears to be the ulterior validation for any technology, even if it is ethically flawed by design, and this validation implies that the issues of ethics concern businesses only if certain products or technologies are rejected by the market. Therefore, market fundamentalism constrains business managers to do ethics within the narrow framework of what the market might allow.

We argue here against the validity of market processes as an appropriate value system or ideology to address the ethical dimensions of the information technology business. There is a lack of evidence to support the notion that market processes ensure public good and societal well-being by design (Berry 2013). Stiglitz (2009) even questioned whether market processes adhere to an ideal of economic efficiency. He stressed the historical role of alternative interventions into markets through governments and cooperatives in the USA. He argued that markets by design do not pay attention to the elements of a good and fair society. Private rewards and social rewards are misaligned, and therefore, there is an important role of government interventions and regulations to make the markets "work." These arguments run counter to the notions of ideal markets as they have been understood in the information technology industry. Therefore, it emerges that ethical inquiry holds relevance beyond the reliance on market processes, irrespective of the fact that market fundamentalism seems to have a strong foothold in the business discourse. A similar critique was offered by Lazonick and O'Sullivan (2000) who provided an analysis of shareholder value as a principle of corporate governance. They questioned the relation between shareholder value maximization and the sustainability of economic prosperity. They showed that corporate governance through shareholder value maximization has historically put millions of people out of stable jobs, leading to a staggering rise in inequality and disproportionately benefiting top business managers.

It might make intuitive sense that market processes ensure ethics by design, because companies do not want to risk public scandals which can affect their profits, consumer base, and reputation. However, this intuition fails to validate the role of market processes. The failure of companies because of public scandals is not a norm. Typically, the threshold for unrespectable or unethical business conduct turning into a major public scandal is quite high and requires external agents like journalists, activists, lawyers, or whistleblowers to bear the burden of proof. It may take years, if at all, for business indiscretions and infractions to be revealed into public discourse. It is reasonable to assume that significant damage might have been done to society before such revelations, and in some situations, it may not be possible to course correct or reverse the damage. It is also not uncommon for consumers to be made indirectly complicit in unethical business conduct through free services or lowered prices. In these cases, what may be ethically unacceptable is socially normalized, making it unlikely that any public revelations would turn out to be scandalous for the business concerned. Therefore, it is argued here that ethics trivialization based on the ideology of market fundamentalism is a fragile justification with little evidence to support it.

Second, in industry circles, there is a strong belief in the ideology that technology is a superior solution to technical, social, and ethical problems (Morozov 2013). This view has come to be known as technological solutionism. In the information technology industry, technology is the primary lens through which problems are observed and understood and solutions are attempted. The nature of solutions that the industry seeks to propose are primarily technological, not least because technological proficiency is the core competence of the industry. This belief also implicitly suggests that technological solutions are superior to the more traditional ways of ensuring human progress and well-being, such as through governments, nonprofits, and cooperatives (Stiglitz 2009). Technology researchers tend to optimistically constrain themselves within the frameworks of technology, treating it as the preferable solution to a wide range of ethical problems, distancing themselves from the social worlds that their technologies inhabit (Metcalf et al. 2019). Technology is experienced as a "superpower" in the industry, for which reason it dominates the ethics discourse.

The claim of technological solutionism appears to be that technology is a superior solution to more traditional ways of ensuring human progress. The pursuit of technology as an end in itself has become prominent in the information technology business and often becomes the guide to design and development activity within the information technology domain. This overarching pursuit of technology owing to the technology-centric worldview of innovators undermines the ethics discourse by projecting it as unnecessary and irrelevant within the technological paradigm.

However, we counterargue that technological solutionism is problematic because not all ethics issues are technical issues, and framing them as such narrows the scope, capability, and relevance of ethical inquiry. When framed as a technical question, ethics discussions tend to eliminate questions about the existential relevance of technologies. In a technological framework, ethics becomes a quest for "solutions," undermining the ability of ethical inquiry to steer discussions toward changing the way technologies are fundamentally designed or questioning if they should exist in the first place (Morozov 2013). For example, public-oriented discussions about surveillance have typically focused on solving privacy, security, and bias and are indicative of solutionist tendencies. Business stakeholders in these discussions tend to steer clear of the more

fundamental questions about the necessity of surveillance, projecting surveillance as a necessity for maximizing the relevance of technology to each user (Yeung 2018). This biased influence on the ethics discourse narrows its scope and capability to truly address ethical concerns about surveillance technologies. Another issue with solutionist notions is that they revolve around efficiency, not unlike the notions about market processes. They may discard valuable experiential and humane elements of a process as a waste of efficiency. For example, mobile applications that can grade student assignments for a teacher to save their time may reduce the teacher's subjective sense of involvement in the classroom, even affecting their teaching abilities. In the pursuit of efficiency, technological solutionism does not just undermine the ethics discourse, it may become a source of ethical concern.

Historically, the ideology of technological solutionism has been critiqued in other contexts such as environmental ethics, human enhancement, and geoengineering. Environmental ethicists have argued for decades that the view that better technology can solve problems caused by imperfect technology is deeply flawed (Dobson 2007; Jamieson 2008). It eases the minds of the "do-gooders" without ameliorating the realities of the most vulnerable. The field of geoengineering is also riddled with ethical dilemmas about how technological solutions to tackle climate change may increase moral corruption and hubris (Preston 2013). The preference for technological fixes reduces the incentive for a sustainable change in values and behavior. Therefore, the ethical status of mere technological solutionism is highly ambiguous. It claims to solve ethical problems without urging businesses to question their conduct and the impact of their technologies. A solutionist approach is a reductionist approach to ethics and is misguided from the perspective of what ethics is all about.

To sum up, market fundamentalism and technological solutionism reflect deep-rooted intuitions and ideologies which posit that ethical issues can be addressed within the narrow frameworks of market processes and technological fixes. We argued that these notions undermine the relevance of ethics by limiting the scope of its possible outcomes. They deny that it may be necessary for ethics to be treated as a valuable pursuit separate from or even counter to market and technology-centric intuitions. It has been argued in this sub-section that these ideologies are not an appropriate source of ethical conduct for businesses in the true sense of ethics. As these notions gain a strong foothold in the public and policy discourse, it becomes necessary to investigate the systematic failures of market processes, especially in the information technology industry. There is a need to understand how and why consumer acceptance in this domain has not succeeded in rewarding ethics and what regulatory interventions may be required to make the markets "work." It is also necessary to cast a wider net in terms of solutions to the socio-economic issues that have been created or exacerbated by information technologies, questioning the technological frameworks which dominate much of the business and policy approach.

4.3 The "Deflection" of Ethical Responsibility

The third category of justifications which underlie ethics trivialization tend to deflect ethical responsibility toward consumers and users in the information technology ecosystem. Unlike the dismissal and denial of ethics, deflection justifications do not reject the ethics discourse as irrelevant, unnecessary or incompatible with business and

technology. The logic of deflection is to implicate actors other than the business as the source of ethical responsibility. The "other" actors discussed in this paper are consumers (in business-centric narratives) and users (in technology-centric narratives).

First, the consumer-centric accounts of business propose that because the consumer is the driver of the market process, technologies that succeed in the market are implicitly endorsed by consumers, and by extension the society which these consumers inhabit. This argument is supported by some literature (Creyer and Ross Jr 1997). However, when consumers' market behavior rewards cost, profitability, and innovation over ethical concerns, which it often does (Nebenzahl et al. 2001), businesses might argue for the prioritization of these metrics over ethics. Businesses argue that the cost of ethics can lead to incompetence in a market in which ethics is neither the norm, nor there is regulation to ensure that every company faces a uniform cost of doing ethics (Flyverbom et al. 2019).

The relevant claim of consumer-centric accounts for the ethics discourse is that ethical responsibility (or irresponsibility) is a market choice which is pragmatic only when consumers reward it economically. According to this claim, when consumers become complicit in unethical business choices by rewarding them in the market, it reduces the ethical accountability of business. These accounts suggest that the information technology industry defends business freedoms against ethical accountability by representing their responsibility as being solely to their consumers.

We address here the issues with the argument that the consumer holds a significant burden of responsibility for making ethical choices in the market. We base our counterargument on the premise that there is a trade-off between ethics and cost or profitability metrics in any business. If there was no such trade-off involved, the justifications presented in the previous section about market processes being capable of ensuring ethics and general societal well-being by design would be unquestionable. This trade-off is what businesses might argue that consumers are unwilling to make. However, if market processes are questionable in their ability to ensure societal well-being (Stiglitz 2009), and if consumers constitute the market process, it follows that consumers are not a reasonable locus of ethics judgment, assessment or acceptance of technological products. This phenomenon has also been reported independently in consumer literature that consumers in practice do not reward ethics through market behavior as much as they do in attitude, especially when it costs them (Boulstridge and Carrigan 2000; Carrigan and Attalla 2001). This may be due to multiple reasons which we can only speculate here. Consumers may be unaware of the ethical issues with technology or incapable of assessing them on a large scale or over longer timelines (Athey et al. 2017). They may not have reasonable alternatives to the technologies and products that they use (Christl 2017). They may lack the required training or sensitivity to make ethical judgments. They may lack appropriate avenues to protest. It is possible that businesses hide ethical issues from public view (Greene 2020; Newton 2019). It is also possible that ethical issues such as smartphone-driven distractions have become normalized in modern culture. For these reasons, it is a flawed argument to expect consumers to act as loci of ethical responsibility for business decisions even if they are complicit in unethical business conduct and choices.

Second, the user-centric accounts of technology propose that the role of technology in society is closer to that of an artifact rather than social actor. This is known as the technological neutrality argument, which portrays technology as a passive, neutral,

universal, and obedient tool subject to the whims of users (Zhao et al. 2004). This argument posits that the mere existence or the design of technology is irrelevant to how its users choose to utilize it. Technological neutrality as a justification has gained prominence in the public and policy discourse on various technologies, in the form of rhetoric that "guns don't kill people, people do," or that social media platforms are "pure, empty space" (Henigan 2016; Marantz 2019).

The claim of user-centric accounts is that since technology itself is neutral, it is capable only of having the influence which the user desires and chooses for it to have. This argument hints at reduced business accountability especially for issues and problems not "caused" by businesses in the literal sense but that have arguably merely been enabled (Levin 2018). The neutrality of technology implies that businesses do not have a duty to act ethically. It positions them as problem solvers who provide solutions to cater to users' needs. If users utilize technologies in a manner harmful to themselves or society, according to this argument, the concerned businesses are not accountable for the same because technology does not play a causal role in the users' actions.

The counterarguments to this position are fairly strong in the academic domain. Technological neutrality has not received significant acceptance in academic and philosophical discourse (Chander and Krishnamurthy 2018; Introna 2017; Klenk 2020; Zhao et al. 2004). There is a consensus that the technology-society relationship is significantly shaped if not causally determined by technology. The human-technology-society relationship has been conceptualized in multiple ways. It has been argued that technology and society co-construct each other (Introna 2017). They can evoke certain behaviors, suppress others, and frame the world in a certain way by mediating human perception and action (Introna 2017; Introna and Ilharco 2004). Verbeek (2006) argued that this mediation of human-world relationships through technology means that technologists already make implicit, if unverbalized, ethical choices to shape society as they do. The assumption of neutrality is also being presently critiqued in the public discourse, recognizing the value-laden and non-artifactual nature of technology (Madrigal 2017). For example, when social media companies choose to make reliable and unreliable news sources "look" the same, it automatically influences people's perceptions of truth, rendering the argument of neutrality redundant (Thompson and Vogelstein 2018). Despite these counterarguments, the information technology industry stresses the neutrality of technology and their reduced ethical responsibility in the public sphere as well as to influence the nature of future regulatory interventions (Chander and Krishnamurthy 2018).

Overall, the consumer and user-centric accounts of ethical responsibility tend to reduce business accountability as well as help justify the strong opposition to regulation that policymaking in this domain has received. However, governmental regulations have the immense potential to influence the trajectory of the market and technology toward societal well-being, as Stiglitz (2009) has argued before in a non-technology context. The role of governments becomes especially important if consumers and users are not appropriate loci of ethical responsibility, as findings from consumer research suggest. Regulation can also address the business grievances that voluntary ethical initiatives impose unfair costs on businesses in a competitive market environment (Flyverbom et al. 2019). Having said that, regulation is inherently incapable of addressing every triviality of business ethics, a point that has also been raised by the market failures approach to normative ethics (Heath 2014). Even within the

frameworks of existing regulations, businesses possibly make hundreds of decisions that are unquestionably legal and yet ethically questionable. Consumers may have no awareness of these decisions and may not punish these decisions in the market. Therefore, it is unjustified for businesses to frame the lack of ethical conduct in business or technology as a social choice, understating their own ethical and legal accountability in the public and policy discourse.

4.4 The "Defense" of Business Practices

The fourth and the last set of justifications addressed in this paper defend the existing efforts of businesses to address ethical issues as acceptable or adequate. These justifications are meant to vindicate current business practices and market norms. There are many arguments contained within this category of justifications, such as the utilitarian arguments based on the beneficence of technology, rights-based arguments, and the relativity of ethics. The arguments within this category influence the ethics discourse through a defense of technologies and practices which may not be truly ethical from an impartial perspective.

The most prevalent defense justifications posit that technologies, despite ethical concerns, are beneficial and desirable in the overall scheme of things. This defense may include utilitarian or rights-based arguments. For example, the information technology industry vigorously defends the right to free expression (Paul 2019), despite its unintended consequences in the form of misinformation, hate speech, and online bullying. In 2019, Facebook refused to fact-check political advertisements with the rationale that it believed in free political expression (Romm et al. 2020), assuming the overarching importance of free expression against the importance of a fair election process. Businesses also present utilitarian arguments in public discourse to justify the way technologies are designed. The loss of online privacy is justified against the relevance and utility of personalized information (Shrikanth 2019). The biases of algorithms are obscured against their predictive power (Hvistendahl 2016). Ethical issues with surveillance are assumed to constitute a fair cost for free services that are typical of the information technology ecosystem, leading to lesser public scrutiny of information technology businesses (Flyverbom et al. 2019). The idea that technology is "good" is widely shared in the field of innovation ethics, dominating much of the discussion on responsible innovation (Koops et al. 2015). The concept of innovation in the current techno-economic paradigm is presupposed to consist of *technological* innovation which is inherently good (Timmermans and Blok 2018; von Schomberg and Blok 2019).

The claim of the above arguments is that because technology is good, beneficial, and advantageous, the issues that it creates or exacerbates are at least acceptable in exchange for the benefits it provides. The beneficence claim appears to argue that ethical concerns are side effects or unintended consequences of technologies whose intentions are beneficial, and as such these ethical concerns are unavoidable. There is an implicit suggestion that any unintended yet inevitable consequences of beneficial technologies ought to be acceptable.

Here, we attempt to highlight the weaknesses of beneficence arguments that undermine ethical concerns. We argue that the trade-offs involved in utilitarian and rights-based reasoning about information technologies are not only rarely justified for their

legitimacy, but they are routinely made unilaterally by businesses on behalf of their consumers/users and the society at large. This was the case with Facebook's refusal to fact-check political advertisements, which was an ethically relevant decision made without any public consent or choice (Romm et al. 2020). The beneficence justifications tend to constitute an exemplification of the benefits of technology, under the influence of business incentives (Mittelstadt and Floridi 2016). They also reduce the ethical consequences of technology to intangibles like privacy, autonomy, or bias, diminishing the perception of their value. The authors acknowledge that value trade-offs are sure to surface in the design of many technologies. However, the central tenets of utilitarian reasoning are impartiality and agent neutrality (Driver 2014). Similarly, rights-based reasoning is not absolute from an ethical perspective when it compromises the rights of other beings. Therefore, we argue that when business incentives bias utilitarian and rights-based reasoning, its legitimacy is diminished. Such reasoning tends to justify the gains of the few (technologists, companies, employees, shareholders) against the loss of many (users, consumers, public, society). The biased nature of this reasoning may also lead to misleading justifications, projecting the elements of the trade-off involved as inevitably interconnected, when it may be technologically possible to design them as mutually exclusive (Hildebrandt 2013).

A second argument based on the beneficence of technology that needs addressing is that the ethical costs of technology are fair in exchange for free services. This line of reasoning also contains the argument that users are free to not use the technologies whose "costs" they are unwilling to bear. However, as argued in the previous section, users may be unaware of the costs that they bear in exchange for free technologies (Athey et al. 2017). Even if they had complete awareness, the natures of costs that users must bear in terms of their online privacy, algorithmic discrimination, manipulative advertising, dark patterns, etc., are ubiquitous and similar across multiple technologies in the market. Because it is unreasonable to expect users to avoid all of modern technology that has become an integral aspect of assimilation in modern society (Christl 2017), it follows that users do not have the "free" choice to refrain from their use. Moreover, when ethical standards of technology design are similar across paid and unpaid services, it renders the argument of the fairness of costs redundant. The costs of the "free" information ecosystem appear to be an arbitrary combination of monetary value and intangibles and are rarely if ever clearly known to users. Therefore, the fairness of costs is, at best, an incomplete justification of genuine ethical concerns inherent in the design of technologies.

The second form of defensive theorizing that has been observed in business contexts is relativistic reasoning. Ethical relativism is a view which asserts that there are no universal ethical truths, and moralities are situated within contexts, cultures, and societies (Gowans 2019). When different groups differ on the nature of morality, relativism asserts that there is no rational way to resolve these differences. In business, relativistic reasoning manifests as a justification of market norms being adequate from an ethical perspective. This helps businesses stay competitive in an unregulated market. Companies mirror each other's approaches to doing ethics, and new companies look to established companies for ethical standards (Metcalf et al. 2019). Market norms become the source of business conduct, replacing the more intensive process of ethical theorizing.

The claim of the relativity argument in business is to imply that since ethics are relative, they do not have a normative force. Therefore, this argument advocates for a high reliance

on market norms as a guide for business conduct. With the rejection of ethics as having normative strength, the relativity argument defends business activity through the lens of market norms. This argument implies that businesses almost stand outside the expectations of normative ethical conduct with no transactional relationship with society.

It is counterargued here that market norms almost imply ethics to be a matter of preference, opinion, or majority agreement. Market norms are indicative of constraint-based agreement since they are at least partially a result of constrained market processes. On the contrary, ethical relativism posits that even though ethics are situated within a culture or society, they do have a normative force or a truth-value relative to that society (Gowans 2019). The fundamental position of relativism is to emphasize diversity in the understanding of ethics, instead of asserting strict irreconcilable differences between culturally different moral systems (Wong 2020). These different moral systems may not be mutually resolvable, but they are still normatively valid and justifiable within context. The proposition that market norms are beyond the realm of normative assessment is a misrepresentation of ethical relativism. It is observable that businesses are created, and they benefit from the society and cultures that they exist in. Relativism urges businesses to be context-aware, and in some ways, it also implicitly emphasizes the need for ethical justifications in multicultural contexts. Therefore, it follows that market norms need to be normatively justifiable independent of market processes and constraints, even within a relativistic view of ethics. The adherence to market norms which do not draw upon ethical inquiry is an implicit endorsement of market fundamentalism, the normative validity of which is questionable, as has been argued previously in the paper.

To sum up, this section discussed justifications which defend the current business practices and norms as adequate or acceptable. Beneficence-based arguments project technology as a trade-off between gains (free service, predictive ability, content relevance, social connectedness, free expression) and losses (online privacy, security, confidentiality of personal information, targeted persuasion, online hate). Relativistic reasoning on the other hand utilizes market norms as the source of conduct for ethical decision making. The authors acknowledged that technologies are bound to have value and outcome trade-offs, and it is unreasonable for any technology to be inarguably beneficial from all perspectives. However, it is the verbalization and democratization of these trade-offs which holds significant importance in the value-laden world of information technologies (Verbeek 2006, 2009). This sub-section also attempted to highlight the assumptions involved in common relativistic reasoning and how relativistic ethics do not assert the inexistence of normative ethics. It follows from this argument that if market norms influence decisions of ethical relevance, they need to be independently justifiable on ethical grounds, regardless of whether the justification relies on the universal view of ethics or the relativistic view.

5 Discussion

The arguments presented in this paper have highlighted that the distaste toward ethics in the information technology business is rooted in individual perspectives rather than social visions for the common good. This observation is not novel to the information technology context and phenomena similar to ethics trivialization have been reported

previously in other fields. In the context of climate change, Gardiner (2006) describes the phenomenon of "moral corruption," which refers to a subversion of our moral tendencies to pursue our own ends. According to Gardiner, moral corruption can be facilitated by distraction, complacency, unreasonable doubt, selective attention, delusion, pandering, false witness, and hypocrisy. Peeters et al. (2019) have also recently documented the phenomenon of "moral disengagement" with regards to climate change. Moral disengagement refers to the psychological phenomenon that allows emitters to dissociate self-condemnation from harmful conduct, leading to a motivational gap for tackling climate change. However, ethics trivialization as formulated in this paper is different from these two phenomena of moral corruption and moral disengagement. Our paper focuses on the conceptual structures of the "justifications" which underlie ethics trivialization, not on their psychological underpinnings, whereas moral corruption and moral disengagement attempt to formulate the political and economic trivialization of the problem of climate change through a psychological lens.

From our elaboration of the problem of ethics trivialization, two major themes have emerged. The first theme is a deep-rooted belief in market fundamentalism. This ideology informs multiple threads of the justifications which undermine ethical concerns in technology business contexts. "Denial" justifications posit that market processes constitute a superior value system to ensure ethics in business by design, understating the necessity or relevance of extrinsic ethical interventions. "Deflection" justifications frame consumers as the loci of ethical responsibility, and "defense" justifications adopt market norms as a source of normative validation of business conduct. It has been historically shown that market processes do not "work" in favor of a good and fair society, and regulatory interventions are typically required to build morality into markets. However, in the information technology domain, policies and the law have not kept up with the advancement in technologies. This points to two urgent needs. The first suggestion which follows is the technological and human resource upgradation of the policy and legal infrastructure. The knowledge about the structure, operations, language, and constraints of technology has a huge potential to shape present and future regulations such that regulations can be prevented from being arbitrary, technologically unachievable or filled with loopholes. The role of these regulations shall be to outline market constraints, impose fair and equal costs of ethics across the market, and give rise to market norms with a normative ethical validity. Regulation may also be valuable to bridge the knowledge gap between businesses and consumers, such that consumers may be better suited to make ethical judgments on technological products, and markets can reflect those judgments. In the past, this role of regulation has been demonstrated in the packaged food industry, where food manufactures are required to disclose the ingredients and calorie details of their food products. In this example, the role of regulation is to empower consumers rather than prohibit choice. Similarly, governments could legally require technology businesses to disclose consumer-relevant knowledge about their products clearly and concisely. What this consumer-relevant knowledge constitutes in different domains is subject to further discussions. However, for any regulations to be effective, they would need to be sensitive not only to how information technologies work and what their capabilities are but also to human psychological and cognitive workings as users of technology. A second less obvious but arguably even more important suggestion is to rigorously recycle and expand current policy frameworks to accommodate the information

technology business. Market fundamentalism is not specific to the information technology industry, and there is a scope for already existing regulations to encompass these businesses. Some policy frameworks which are suitable for this transference are employment regulations for contract employment which is common in the platform gig economy, antitrust regulations for anti-competitive market behavior, regulations which govern political and commercial advertisements, restricting technologies which can be sold to minors, legally prohibiting algorithmic discrimination in socio-economic systems, etc. The way forward for policymaking seems to be twofold: reincarnation of existing legal and ethical frameworks and upgradation of the policy infrastructure attuned to technological advancements.

A second theme that strongly emerged from this paper is a technology-centric attitude in the technology industry. This theme emerged in "dismissal" justifications as the ideological claim of technological inevitability, in "denial" justifications as technological solutionism narrowing the scope and relevance of ethics, in "deflection" justifications as technological neutrality, and in "defense" justifications as technological beneficence. As we addressed the weaknesses of these justifications, the discussions pointed toward the urgent need for an outlook shift in information technology businesses. There is a need for the industry to acknowledge the limitations of technological solutions and the risks that are inherent in reductively analyzing issues of societal and ethical relevance within technological frameworks. In the public and policy discourse, business stakeholders need to acknowledge the illegitimacy of narratives of technological inevitability, focusing instead on highlighting and justifying the real value trade-offs involved. Even though value trade-offs may be inevitable in the design of technologies, adequate verbalization of these trade-offs is necessary for technology users to make informed decisions, especially when they have significant ethical relevance. It is also important that the notion of technological neutrality is abandoned in public discourse, creating more scope for argumentation about how technology shapes society and on the normative aspects of the same. The ethics discourse is profoundly shaped by the assumption of technological goodness or desirability, and information technologies have become significantly embedded in domains of public importance such as education, governance, public health, finance, etc. While this paper has no intention to question the value of well-thought-out technological progress, it does attempt to question the undue emphasis on technology which understates the role of infrastructure, institutional and social processes, alternative economic arrangements and alternative tools to address issues of societal relevance in socio-economic systems. It is argued here that the industry needs to begin exploring the interplay of technology with these overlooked non-technological factors in socio-economic systems, possibly in constructive partnerships with governments. This outlook shift is imperative if businesses intend to be actively conscious and aware of the ethical implications of their choices, and to step back from their self-perception as mere profit-seeking entities.

6 Conclusions

In this paper, the authors have attempted to break down the underlying justifications of the phenomenon of ethics trivialization in the information technology business into four categories. The "dismissal" and "denial" justifications question the relevance of the

ethics discourse altogether. These categories consist of hardened ideologies and meta-physical claims that require significant ideological shifts to be remedied. The "deflection" and "defense" justifications are an attempt to undermine the ethics discourse, either by implicating "other" actors or by defending existing practices and norms. These categories typically consist of misconceived justifications that can be countered with reasoning or evidence to reach a consensus about the division of ethical responsibility and acceptable value trade-offs.

This paper was written with the objective of demonstrating that the phenomenon of ethics trivialization is objectionable on empirical and philosophical grounds. Within each of the four categories, empirical evidence has been highlighted and philosophical arguments have been presented to counter the ethics trivialization attempts. A note-worthy characteristic of this paper is that even though there is ample literature on ethical frameworks for information and communication technologies, the paper has not expanded upon it. Rather it has taken a much-needed tangential focus to understand and counter the phenomenon of ethics trivialization which has become prevalent in the information technology business context. In that sense, this paper is an attempt to open a dialogue about ethics with innovators by urging them to reflect upon the phenomenon of ethics trivialization. In future research, the understanding of ethics trivialization could be greatly improved by drawing upon specific cases in the context of online privacy, algorithmic fairness, copyright issues, social media use, etc. This paper has not attempted to delve into any of these specific contexts, and therefore, its understanding of ethics trivialization remains rather broad.

Overall, this paper has made a novel attempt to highlight the unfounded and misconceived justifications underlying ethics trivialization by categorizing them and systematically countering their foundations. The paper concludes that most of the justifications of ethics trivialization are flawed, and there is an urgent need to present counter justifications in policy circles in order to help the societal cause of ethics in the technology business. Also, this paper argues that there is a need to significantly advance the ethics discourse on information technologies. In light of the arguments presented in this paper, it is advocated here that policymakers need to be sensitized to the trend of ethics trivialization which targets regulatory attempts with misguided ideologies and arguments. Therefore, scholarly discourses are required to ensure that ethics trivialization is not allowed to hamper public and policy discourse on the topic.

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