Is Roboethics Really Optional?

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ABSTRACT

Over the years, the question of roboethics has gained increased attention across a variety of disciplines, areas and institutions. Depending on the approach, there has been a variety of interdisciplinary attempts to determine and foster guiding rules and principles for the development and use of robotic and AI systems. While the reasons for engaging with roboethics are rather clear ('ensure protection and well-being of human beings'), the reasons for *not to* addressing ethics in this context are certainly worth a closer look. This paper discusses the reasons for dismissing roboethics within some parts of the robotics community and the underlying logic for leaving ethics unaddressed in and outside the field of robotics. We argue that by excluding ethics from design thinking one actually excludes human beings, which is the ultimate form of dehumanisation of humans in our society. Since formal and abstract moral systems are often difficult to incorporate into practice-oriented robotics research, we suggest developing roboethics towards 'lived ethics'.

Keywords

Roboethics; ethics; robotics community; dehumanisation; lived ethics

1. INTRODUCTION

While the field of roboethics is still young, with no doubt it has been growing fast. An international debate on "human ethics applied to robotics" [19] has involved an ever-increasing number of stakeholders in academia, industry, public institutions and civil society. While we are still far from reaching a common understanding of how to identify and address the key ethical challenges in robotics technologies, one could argue, we are on the right path towards developing a global framework for responsible robotics. In other words, despite an initial reluctance of robot designers to engage with research on the ethical impact of robots [14], and a low opinion of ethics some technology developers may hold [9] (p. x), there has been a widespread recognition of the need for roboethics. It has been argued that with an increasing introduction of robots into our daily environments, "ethics has now become something that the designers of robots must take into careful consideration at some point during each project" [14] and also "there is a clear need for explicit consideration of ethics in [Human-Robot-Interaction] HRI research" [13]. We argue here, however, that as much as the robotics community plays a primary role in addressing ethical challenges and bringing roboethics forward, a large part of robotics researchers continues to be disengaged with ethics, both at an individual and institutional level. On the one hand, this is due to the novelty of roboethics, since it is only recently that ethical and social implications of robotics have become part of regular robotics research, in particular of some of its subfields such as HRI. On the other hand, roboethics has also been left deliberately unaddressed by roboticists, or viewed as only optional for robotics research. Before starting a detailed discussion of the reasons why some roboticists refuse to address ethics in their work, it is worth noting that identifying such reasons is a challenging task. For a variety of personal and professional reasons, the need for roboethics and everything that comes with it, is hardly openly questioned or criticised. A more common approach is to simply leave ethical concerns unaddressed. Thus, it must be emphasised that this paper provides only preliminary insights into the dismissal of roboethics that will be subject to further investigations.

2. WHY NOT ENGAGE WITH ROBOETHICS

When dismissing ethics from robotics research, of course this does not necessarily mean that a given piece of design and research work is by default unethical. Roboticist may exclude ethics as a discipline from their research, but at the same time still follow different ethical principles derived from other sources, with or without being aware of it. Why not engage with ethics then, and with its specific form of roboethics? The following sections discuss the potential reasons and the logic behind it.

2.1 Claim 1: There are no ethical concerns in our research

One could argue that the main reason for a lack of engagement with roboethics lays not so much in bringing arguments against roboethics as in not seeing a sufficient justification to do otherwise. Many roboticists view their work in merely technical terms, where there is little room left for ethical questions and related concerns. Since ethical issues often go hand in hand with social concerns, unless a given robot explicitly involves a degree of social interaction with human users, robotic platforms have been rarely associated with ethics. Given the state-of-the-art in the existing robotics technology, a large part of robotics research is being done in the laboratory settings, where the main focus is on the system development rather than on the human users of such systems. Such thinking, however, is short-sighted. There are no ethical concerns in robotics research only if we address a given robot in terms of isolated tasks the robot is supposed to perform, within a short period of time and in the specific settings. We suggest that any reflection on long-term implications of the use of a given robot

that will take place outside the laboratory and will involve direct or indirect human presence, will bring roboticists' attention to a variety of ethical concerns that arise as soon as we introduce robots to the human social environments. In fact, when discussing roboethics, it has been argued that in order to be able to answer questions about ethics in robots and in robotics, roboticists "cannot avoid engaging in a critical analysis of the social implications of their researches" [18]. By addressing the social and ethical impact of their works, roboticists shall not necessarily feel challenged to defend their work. By addressing ethical implications, one refers not only to risks robots may pose but also benefits and opportunities they often bring.

2.2 Claim 2: We do not have expertise in ethics

Other reason for not to engage with roboethics is the assumption that while ethical concerns do emerge in relation to robots, roboticists themselves do not have proper knowledge to address such concerns. In line with such thinking, it is others – philosophers, lawyers and experts in other fields – who should reflect on ethical issues and come up with solutions. For example, roboticists may argue that their work already complies to the existing law, and hence, there is no need for them to address ethical concerns [14]. In other words, it is "the invisible hand of the market and legal courts" [9] (p. x) that deal with this type of issues. Of course, as pointed out in [14], it is a matter of fact that ethics and moral philosophy is a vast field of study that requires expert knowledge and that not all roboticists would want to add it to their research. At the same time, however, roboethics implies distributed moral responsibility in socio-technical contexts involving robots [1], where everyone, be it a robot designer or a robot user, contributes to frameworks for responsible robotics. In line with such thinking, a recommended approach is to "discourage the idea that ethics is a form of expertise wholly detachable from scientific, engineering and business practice" [13]. From this perspective, the very understanding of ethics shifts from the narrow study of how to elaborate formal and abstract moral systems [11] towards broader concepts of what is good and bad, in particular with regards to human conduct and robot performance. Thus, rather than dismiss ethical reflection from robotics research, or feel obliged to gain entirely know new expertise in ethics, roboticists may "only have sensitivity to the ethical implications of her work" [14], or at least provide support for discussions into ethical and social impact of emerging technologies [9] (p. xii).

2.3 Claim 3: Everybody knows what good and bad is

Another way to justify a lack of reflection on the actual or potential ethical concerns related to one's research onto robots, is to claim that 'everyone knows what good and bad is'. Such an assumption often implies understanding ethics as a set of moral rules and values people should follow when dealing with other members of the society and act accordingly. In other words, "Ethics is about doing what is right" [15]. In this sense, the development and use of robots is viewed as no different from other areas of our social life that require the knowledge and application of rules for what is right and wrong. In line with such thinking, when designing robots that are adequate for human real-life environments, it is not unusual for roboticists to rely on their tacit knowledge of what is desirable and beneficial for people and what is not. In addition to dismissing ethics from robotics research, this is also due to the difficulty in grasping ethical principles and moral values in a given socio-cultural context. Just as "Everyone knows what an emotion is, until

asked to give a definition" [7], obviously it is not easy to define good and bad (or life, or human being, or robot for that matter). The idea that "human beings live and act out of their moral… without necessarily knowing about them" [10] applies to both roboticists and robot users. This is how a paradox emerges where on the one hand a roboticist may assume he or she has no expertise needed to address ethical concerns in robotics, and on the other hand, he or she may claim that we are all familiar with ethical principles, and hence, there is no need to address ethics as such. One way for roboticists to deal with such a paradox is to think of roboethics not only through the lens of robotic systems, but also and above all with the focus on human beings.

2.4 Claim 4: We have other priorities

While such a view is rarely articulated as such, in many cases incorporating roboethics into one's work is viewed as optional. Robotics research often aims to deliver innovative solutions that improve efficiency and increase profits in the first place, where there is little incentive to reflect and work on roboethics. For example, it has been argued that dedicating time to ethics can be viewed as distraction that leaves less time for the actual work on the technology [9] (p. x). Efficiency has been long recognised as a key characteristic of the modern technological society, with different views on its disruptive [6] versus constructive role in human societies [8]. A drive for efficiency has sometimes been described as the major motivation for developing robotics [2]. The need to prioritise financial profits and commercialisation of research results can be seen here as part of a larger phenomenon of ongoing commodification of the academic research [12]. In an attempt to adopt ethics to the above-mentioned priorities, some robotics projects address social and ethical concerns not so much to advance ethical thinking and ethical design as to increase acceptance of a given product or attract publicity and research funding. Of course, this situation is hardly an outcome of only individual decisions. In any case, anyone who questions the need for ethics and its relevance for robotics research, should be also asking what happens if the well-being of people becomes optional or instrumentalised to suit other priorities, and why is that these other priorities are actually more important.

3. DISCUSSION

As discussed above, when dismissing roboethics, one may do so by simply refusing to address ethics in one's own thinking and research work. However, given a growing consensus on the claim that "ethics is not something to be avoided by roboticists" [14], rather than leave it unaddressed, some roboticists adopt ethics to their own fields in a way it fits discipline-specific knowledge, goals and practices. This can take form of developing engineering ethics which is part of applied ethics that deal with more specific and practical issues than, for example, metaethics do [3] (p. 86). Emphasis on practical approaches applies also to the field of roboethics. For example, it has been argued that in order to 'do ethics' we should address both wider philosophical issues and practical problems [4], and also that "by taking a 'practical robot' attitude, 'robot ethics' can be developed practically" [20] (p. 1920). The term 'practical' and 'pragmatic' has been sometimes used synonymously, where a pragmatic approach is the approach that is closer to actual robotic applications [5]. In line with such thinking, it has been argued that roboticists "are in need of practical guidance toward understanding the ethical and legal ones [challenges]" [13], and that we should generally go beyond "speculative robot ethics" [16] to address actual pressing issues and "enforce reality checks" [16]. There have already been works into possible approaches towards how to incorporate ethics into the design of robots, i.e.

translate ethical values into technical design requirements [17]. Adopting ethics to a specific discipline and practices is of course a valid approach. However, we argue here that whether one rejects ethics due to its presumed lack of affinity with robotics or transforms it into engineering ethics, he or she shares a similar approach according to which ethical challenges should and can be approached the way any other engineering tasks is. Such an approach loses sight of the actual human beings, i.e. the core of ethics. We argue here that just as humans are in principle social beings, they are also ethics-oriented beings. The key human characteristic is not only reason or culture but also the ability to define and act upon ethical principles and moral values. In this sense, 'doing ethics' is not limited to groups of experts or particular robot applications, or to exceptional circumstances and occasional debates, but it is an integral part of human life. This is how the decision to leave ethics unaddressed in not neutral: by dismissing ethics roboticists actually deny the key human characteristic, and hence, contribute to dehumanisation of human beings in our society.

In an attempt to embrace the totality of ethics, we propose to adopt a stance of 'lived ethics'. As discussed elsewhere, "To speak of lived ethics points to the mutual shaping of ideas and real life and suggests that moral systems should not simply be applied to concrete situations but rather applicable to and livable in them" [11] (pp. 4-6). From this perspective, ethics is understood not just as *reflection* upon particular matter but also "a particular (and perhaps distinctively human. . .) way of *being* in relationships, in the world" [11] (p. 25). This is how ethics becomes close to the actual human experience. Not suprisingly, researching lived ethics is a difficult task [10], and incorporating it into robotic and roboethics will also be a challenge.

4. CONCLUSIONS

Depending on the approach, we may point to a large variety of ethical concerns in robotics. This applies to both how to design and use robotics systems as well as to how to regulate related issues. Perhaps one of the biggest ethical challenges is the very lack of consideration for ethics within some part of the robotics community. Thus, in order for roboethics to help actually creating ethical frameworks for robotics that fully priorities human well-being, we should foster the view of ethics as essential for robotics and not only optional.

5. ACKNOWLEDGMENTS

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