Journal of Clinical Investigation and Studies



Research Article

Ethical impact of the technology on the healthcare system

Yousefi RH Ali^{1,2*}

¹Department of Mechanical Engineering, Sogang University, Shinsu-dong, Mapo-gu, Seoul, 121-742, Korea

²School of public health, Isfahan university of medical sciences, Iran

Abstract

The unique relationship between doctors and patients requires trust built by the ethical care of patients and family. Technology in health care can continue to move fast and break things, including breaking the trust between patients, family, and staff. An ethical issue affects quality of care, and it may impact patient safety. One of the tools for protecting the doctor-patient relationship and the reputation of the health care industry is the hospital clinical ethics committee. Ethics committee members work with patients, families, and hospital staff to find ethical solutions to complex medical cases.

The aim is to study ethical impact of the technology, on the healthcare system and the relationship between care-ethics and technology-mediated healthcare practice.

In this project we propose an alternate to mediate technology for healthcare practice. We propose a care-ethics platform and its various advantages. We provide a high-level view of the technology to ethical aspects encountering for healthcare.

Background

Technology rapidly advanced in various areas such as medicine, healthcare, and welfare, provide many benefits to the number of people to achieve them, and increased focus on the potential of new technology to meet society's future needs [1,2].

Technology has moved beyond life-sustaining treatments such as dialysis, which were the catalysts for creating the first ethics committees. More and more, the major technology-based ethical questions revolve around normative issues emerging from the gathering and analysis of data, and the use of AI. Those issues include concerns that technology is biased, increases wealth and power inequalities, and erodes the human bonds that create a worthwhile life. The impact of technology is not limited to patients. Technology has also changed the day-to-day experience of working in health care. An example of this is how electronic medical records have changed physician interactions and relationships with patients [2-6].

Technology changes predominantly affect health care practices. Technology is often regarded as a value-neutral tool. At the same time, bioethics is dominated by an engineering model. Ethical contributions to the evaluation of medical technology should go beyond issues of application in clinical practice and focus also on the definition of problems, the demarcation of technical and nontechnical issues, and the morally problematic implications of technologies.

But present technology is not ready for mass deployment yet on public ethics constitutes a substantial societal, cultural, and scientific challenge, due to deficiting from current knowledge concerning the relationship between care-ethics and efficiency of technology-mediated healthcare practice. This ethical aspect deficit challenges involved, interdisciplinary research approaches [3-8].

Hospitals and technology companies realize that there is big money in using technology to find information about the patient and medical staff data. Companies are rushing to cash in. Most of the medical phone apps are tracking patients and gathering detailed medical information about them. These new technologies bring new ethical questions that hospitals and other health care organizations are poorly equipped to answer [2,3,7,8].

Many kinds of welfare technology break with the traditional organization of health care. It introduces technology in new areas, such as in private homes, and it provides new functions, e.g. offering social stimuli and entertainment. At the same time welfare technology is developed for groups that traditionally have not been extensive technology users [9].

Furthermore, the medical practice requires many pieces of knowledge and skills, including the use of technology. Additionally, Fatigue, lack of concentration, and the ability to maintain situational awareness, and poor display can contribute to reduced performance [2].

The crucial aspect of medical practice concerns the relationship between physicians and patients. This, as an ideal and reality, is informed by the physicians' self-understanding, in turn, shaped by personal life and work experiences, as well as institutional and societal contexts. Furthermore, remote control technology, task, and environmental factors can further complicate the problem [10,11].

Research problem

The unique relationship between doctors and patients requires trust built by the ethical care of patients and family. Technology in health care can continue to move fast and break things, including breaking the trust between patients, family, and staff. A moral and ethical issue

*Correspondence to: Yousefi Rizi Hossein Ali, Department of Mechanical Engineering, Sogang University, Shinsu-dong, Mapo-gu, Seoul, 121-742, Korea, E-mail: yousefi_h2000@yahoo.com

Key words: Ethical impact, technology, healthcare system, care-ethics, healthcare practice

Received: May 27, 2020; Accepted: June 02, 2020; Published: June 11, 2020

J Clin Invest Stud, 2020 doi: 10.15761/JCIS.1000124 Volume 3: 1-2

because it not only affects quality of care, but it may even impact patient safety. One of the tools for protecting the doctor-patient relationship and the reputation of the health care industry is the hospital clinical ethics committee. Ethics committee members work with patients, families, and hospital staff to find ethical solutions to complex medical cases. Most ethics cases deal with clinical questions but don't address largescale concerns about the effects of technology on medical care and the hospital culture [6].

When physicians' practices are mediated by technology, or eliminates the need of human, by replacing the human operator with an artificial intelligence remote operator, therefore, ethical dilemmas may arise between instrumentalism and caring relationships [7].

Welfare technology is launched as an important measure to meet this challenge. As with all types of technologies we must explore its ethical challenges. Welfare technology is a generic term for a heterogeneous group of technologies and few studies are documenting their efficacy, effectiveness, and efficiency [9].

The ethical questions about the development and use of welfare technologies, which are the main challenges identified are, disoriented when advanced technology is used at home, conflicting goals, as welfare technologies have many stakeholders with several ends, respecting confidentiality and privacy when third-party actors are involved, guaranteeing equal access and just distribution, and handling conflicts between instrumental rationality and care in terms of respecting dignity and vulnerability [9,11].

This study aims to consider principal issues in ethical impacts of technology care. Concerns about the effects of technology on medical care about the effects of technology on healthcare. Specifically, the following questions are discussed; what are the advantages of technology in healthcare practice, and welfare are to be provided to humans? What would the ethical aspects of technology in healthcare practice? What is the relationship between care-ethics and technology-mediated healthcare practice? How about assessing its ethical impact on healthcare practice? What impact of the care-ethics on the technology assessed previously? Is the care-ethics impact scalable? Then at what scale is it implemented? How the system by this scale be able to process critical information with reduced latency?

Proposed solution

We propose a unique insight for planning and implementing appropriate clinical practices, for caring with implications to consider comfort criteria during nursing assessment and planning of care during a patient's hospitalization and provide a framework for the development of effective assessing ethical impact of health care organizations considering technology holistically, including interventions that are sensitive to cultural differences.

Conclusion

In this project we propose an alternate to mediate technology for healthcare practice. We propose a care-ethics platform and its various advantages. We provide a high-level view of the technology to ethical aspects encountering for healthcare.

References

- Ashcroft RE, Dawson A, Draper H, McMillan J (2007) Principles of health care ethics. John Wiley & Sons.
- Liljegren E (2004) Increasing the Usability of Medical Technology. Methodological Considerations for Evaluation, Chalmers University of Technology.
- Ten Have H (2004) Ethical perspectives on health technology assessment. Int J Technol Assess Health Care 20: 71-76. [Crossref]
- Fontan JE, Maneglier V, Nguyen VX, Brion F, Loirat C (2003) Medication errors in hospital: computerized unit dose drug dispensing system versus ward stock distribution system. *Pharm World Sci* 25: 112-117. [Crossref]
- Coeckelbergh M (2010) Health care, capabilities, and AI assistive technologies. Ethical Theory Moral Pract 13: 181-190.
- Douglas MK, Pierce JU, Rosenkoetter M, Pacquiao D, Callister LC, et al. (2013) Standards of practice for culturally competent nursing care: 2011 update. *J Transcult Nurs* 22:317-333. [Crossref]
- Rippen H, Risk A (2000) e-Health code of ethics (May 24). J Med Internet Res 2: e9. [Crossref]
- Brown I, Adams AA (2007) The ethical challenges of ubiquitous healthcare. Int Rev Inf Ethics 8: 53-60.
- Hofmann B (2013) Ethical challenges with welfare technology: a review of the literature. Sci Eng Ethics 19: 389-406. [Crossref]
- Tarzian AJ, Wocial LD, ACECA Committee (2015) A code of ethics for health care ethics consultants: journey to the present and implications for the field. Am J Bioeth 15: 38-51. [Crossref]
- Epstein B, Turner M (2015) The nursing code of ethics: Its value, its history. Online J Issues Nurs 20: 4. [Crossref]

Copyright: ©2020 Ali YRH. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

J Clin Invest Stud, 2020 doi: 10.15761/JCIS.1000124 Volume 3: 2-2