Module 3 TRN CULTURAL SENSITIVITY, Learning unit 3.2 Ethical and legal issues

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THEORETICAL COMPONENT

Principles and Values

Until now, you have navigated through half of the topics and hopefully gained some new knowledge about different types of robots that can be used in health and social care, especially socially assistive robots and their capabilities, benefits, and their potential role in care. One of the key aspects of implementing SARs in care that also needs careful consideration is ethics and legislation. You need to be aware and understand the main concerns and ethical challenges associated with the use of SARs in health and social care. This includes informed consent, autonomy, dignity, data protection, privacy, confidentiality, and security that support the safe implementation of SARs in health and social care. This section also lists some important policies and regulations currently being used to support the safe implementation of SARs in health and social care. Please be aware that due to the ongoing and fast development of AI and robotics, new legislations will likely be introduced in the future that may replace those described here.

The principles and values that guide this tool include:

- Dignity
- Equality
- Respect
- Security
- Human Rights

Aims

This tool aims to enhance the ability of participants to consider and address issues pertaining to ethics and legislation concerning the implementation of SARs in health and social care.

Learning outcomes

At the end of this training, the participants:

- Should gain knowledge about main ethical and legal concerns associated with the safe implementation of SARs in health and social care.
- Be aware of the importance of seeking and obtaining informed consent from patients/clients and family members when implementing SARs in care.
- Gain some knowledge of current policies and regulations concerning data protection, privacy, confidentiality, and security that support the safe implementation of SARs in health and social care.

Relevant definitions and terms

Agency. Agency is the capacity of individuals to act independently and to make their own free choice.

Beneficence. Beneficence considers the balancing of benefits of treatment against the risks and costs; the healthcare professional should act in a way that benefits the patient (Beauchamp and Childress, 2001)*.

Ethics of Artificial Intelligence. The ethics of technology specific to robots and other artificial intelligence beings concerns the moral behaviour of humans as they design, construct, use, and treat artificially intelligent beings, and the moral behaviour of artificial moral agents (Ranschaert et al. (eds.), 2019).

The **Individual.** All individuals have inherent worth within themselves as well as sharing the fundamental human values of love, freedom, justice, growth, life, health and security (Papadopoulos 2006, p.10).

Isaac Asimov's Three Laws. Isaac Asimov (1920–1992) was a science fiction author and formulated the Three Laws of Robotics which continues to influence researchers in robotics and AI.: "(1) A robot may not injure a human being. (2) A robot must obey orders, unless they conflict with law number one. (3) A robot must protect its own existence, as long as those actions do not conflict with either the first or second law". (Ranschaert et al. (eds.), 2019, p 354).

Justice. distributing benefits, risks and costs fairly; the notion that patients in similar positions should be treated in a similar manner (Beauchamp and Childress, 2001)*.

Non-maleficence. avoiding the causation of harm; the healthcare professional should not harm the patient. All treatment involves some harm, even if minimal, but the harm should not be disproportionate to the benefits of treatment (Beauchamp and Childress, 2001)*.

Respect for autonomy. Respecting the decision-making capacities of autonomous persons; enabling individuals to make reasoned informed choices (Beauchamp and Childress, 2001)*.

What the research says

- **Boada, J., P., Maestre, B., R. and Genís, C., T. (2021) The ethical issues of social assistive robotics: A critical literature review.** *Technology in Society* **Volume 67, 101726.** Although SARs are expected to significantly contribute to care practice, numerous ethical challenges have been raised. In this critical literature review, which includes 56 research publications, ethical issues of SARs were categorized into three main thematic groups: Well-being, Care, and Justice. According to the analysis, the most often mentioned ethical themes were Privacy /Data Control, Deception, and Autonomy (all subthemes under 'Well-being'). Some other examples of ethical concerns were discussed in the following subthemes: 'loss of human contact', 'safety', 'emotional attachment', 'unauthentic intersubjectivity', 'freedom', 'objectification', 'human-human relationships' etc. Available here.

- **Battistuzzi, L., Sgorbissa, A., Papadopoulos, C., Papadopoulos, I., & Koulouglioti, C. (2019). Embedding Ethics in the Design of Culturally Competent Socially Assistive Robots, 1996–2001.** This article describes how a research ethics training module for the project CARESSES- —an international multidisciplinary project that aims to design and evaluate the first culturally competent SAR for the care of older adults- was developed. The article also includes an overview of ethical issues related to conducting research with SARs and older adults in care homes. For instance, concerning autonomy, authors note that SARs can promote and maintain autonomy as they can offer suggestions and encourage users to carry out tasks on their own and care for themselves. However, it is highlighted that assistance from SARs should always be limited to what is required and beneficial to the care recipient. Available here.

- **Sharkey, A., & Sharkey, N. (2010). Granny and the robots: Ethical issues in robot care for the elderly. Ethics and Information Technology, 14(1), 27–40.** This article raises and discusses ethical concerns associated with the use of robots in older adults' care. Authors explore the following concerns: 1) the potential reduction in the amount of human contact; 2) an increase in the feelings of objectification and loss of control; 3) a loss of privacy; 4) a loss of personal liberty; 5) deception and infantilisation; 6) the circumstances in which elderly people should be allowed to control robots. Available here.

- **Ienca et al. (2018) Ethical Design of Intelligent Assistive Technologies for Dementia: A Descriptive Review, Science and Engineering Ethics 24(3)** This systematic literature review discusses ethical

considerations and explores the use of Intelligent Assistive Technology (IAT) in care, specifically their design in relation to ethical values. Results showed that IATs are not designed to take into account ethical values and considerations in many cases. Issues such as justice, equality, privacy, and security were found to be the most ignored. It is highlighted that to successfully implement these technologies in care and improve the lives of care recipients, ethical evaluations need to be incorporated in products. Available [here](#).

- **Laitinen, A., Niemelä, M. and Pirhonen, J. (2019) Demands of Dignity in Robotic Care: Recognizing Vulnerability, Agency, and Subjectivity in Robot-based, Robot-assisted, and Teleoperated Elderly Care, Society for Philosophy and Technology Quarterly Electronic Journal 23(3).** The authors of this research article discuss the subject of older adults' dignity concerning robotic care, specifically if robotic care maintains or ignores human dignity in the care of older adults. It is concluded that the answer depends 'on the institutional and cultural settings whether positive or negative effects dominate' (p 391). Available [here](#).

- **POSTnote nr 591 (2018) Robotics in Social Care.** In the UK, POSTnotes (briefing notes) are created regularly about scientific subjects to inform members of the Parliament. This POSTnote addresses the use of robotic technology in social care and explores also the main ethical, social and regulatory challenges to its use in social care. Available [here](#).

What do national legislation and international/European treaties and conventions say on the topic?

- **International Organization for Standardization (ISO) (2014) ISO 13482:2014 Robots and robotic devices.** This is a regulation about safety requirements for personal care robots. It addresses hazards that are associated with the use of personal care robots and provides requirements to reduce the risks to an acceptable level or eliminate the risks entirely. Available [here](#).

- **European Parliament, Committee on Legal Affairs (2017). Report with recommendations to the Commission on Civil Law Rules on Robotics.** Among other aspects, this report deemphasizes the role of Asimov's rules on robotics, which are known by the public but have no scientific or technological relevance. Under General Principles, this document states that Asimov's rules may be regarded as being directed at the designers, producers, and operators of robots since those laws cannot be converted into machine code until robots become or are made self-aware. Available [here](#).

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PRACTICAL COMPONENT

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Learning Activities

Activity 1: A case study with reflective questions

- After reading through the terms and definitions section and navigating through the 'what research says' and 'what international/... treaties say' chapters, read the results section of the research article available [here](#) if you have not done so yet. The article is Boada, J., P., Maestre, B., R. and Genís, C., T. (2021) The ethical issues of social assistive robotics: A critical literature review. *Technology in Society* Volume 67, 101726.
- Using the knowledge from your learning, read the following case study and reflect on the following questions:
  - What ethical issues can you identify in this case?
  - What actions could you have taken to prevent these issues from occurring?
- Create a post with your answers and share it on the discussion board of the social platform for collaborative learning.

- Resources needed: scientific article, case study, social platform for collaborative learning.
- Duration of activity: 30 minutes

Case study

You are working as a permanent carer in a long-term care home for older adults who require physical and mental health care support. Arnold is a new member of the caring home. Since he arrived 2 weeks ago, he has not been very social and tends to spend most of his time taking a nap in the recliner chair. The night shift carers inform you that Arnold is usually awake during the night, laying in his bed and falling asleep right before morning activities begin. You soon learn that Arnold often had visitors and was much more social, but that changed when a recent pandemic occurred. Arnold's son informs you that his dad enjoyed doing word puzzles when he was in the previous home. The only thing Arnold seems to participate in is to join other residents to have a traditional Sunday roast in the dining hall.

You decide to ask Arnold if he would like to spend some time with one of the home's socially assistive robots. You think the robot would keep Arnold awake during the day by helping Arnold contact his family and friends and also do word puzzles. You believe that this could help him sleep during the night as well. You also hope that it might be a useful way for him to connect with other residents in the new home. At first, Arnold disagrees and is reluctant to meet with the robot, but you strongly feel that he could benefit from it, so you bring him a social robot that begins to converse with Arnold in the privacy of his own room.

Next week, when you return to work, Arnold seems more active during the daytime. You chat with him about the robot and ask if he has enjoyed the time spent with the robot. Arnold replies, "Well, actually yes. He is very smart. I can do all kinds of puzzles with him, and he helps to call my son. If only I could keep him here all the time. They keep taking him away from me." Later your colleague mentions that Arnold missed the Sunday roast and instead stayed in his room to have dinner. If you ask Arnold about this, he says he was too busy doing the puzzles with the robot and didn't want to quit before he finished.

Activity 2: The importance of privacy

- Please watch the following video on Youtube.com where social robot Pepper is interacting with a human. The video shows different versions of Pepper's response when the dilemma of privacy occurs (available here, 2 minutes).
- After watching, reflect on the video using your learning and knowledge. Think about the following questions and create a post on the social platform for collaborative learning about your views on privacy and given video and post it on the discussion board. Have you ever had a situation when someone disregards your privacy? How did it make you feel? Why do you think privacy is important to us? Which response do you think is best when Marco is alone and when Marco is with guests? Why? Do you think there are situations where privacy can/should be intruded on in your own workplace? If yes, give examples. Do you think this only applies when there is human-human interaction or also for human-robot interaction?
- Read answers from other participants and reflect on their thoughts.
- Resources needed: Youtube video, social platform for collaborative learning.
- Duration of activity: 15minutes.

ASSESSMENT COMPONENT

Assessment Activities

Activity 1: Quiz

- Go to the following address and complete the quiz.

- Resources needed: [GoConqr](), a tool for online Questionnaires; social platform for collaborative learning.
- Post your results on the social platform for collaborative learning.
- Duration: 3 minutes.

EVALUATION COMPONENT

Participants to evaluation

The online evaluation questionnaire of each Learning unit is completed by the MOOC participants (students and student/facilitators) on Survey Monkey

What to evaluate

The Learning Unit's evaluation criteria are: coverage of the identified learning needs, innovation, quality of the content and training materials, intuitive and friendly presentation, relevance of learning activities, and efficiency for achieving established learning outputs.

Please, complete this online evaluation of the learning unit by clicking on this link:

https://www.surveymonkey.com/r/LS73S7M