



ENRF Briefing Note

Bridging the Implementation Gap Between Nursing Research, the General Data Protection Regulation, and Artificial Intelligence

2020 marks the two-year anniversary of the adoption and implementation of [the General Data Protection Regulation in the EU](#). This EU Regulation, often referred to by its acronym “GDPR”, is a legal framework that sets guidelines for the collection and processing of personal information from EU citizens – and in the case of patients, health data. This Regulation applies to all companies, citizens and/or stakeholders regardless of whether they are based within or outside of the EU – however, if the operations of data collection, storage and/or management happens at some point in the EU, then the GDPR must be implemented by design and by default into the whole process.



Data protection and privacy are enshrined by default and by design in the core work of the nurse researchers it represents, as they can greatly benefit from the lawful and fair use of health data to advance their research in the own benefit as well as on the benefit of the frontline nursing profession.

AI

- Systems that think like humans
- Systems that act like humans
- Systems that think rationally
- Systems that act rationally

Another topic of utmost importance for the nursing researchers is [artificial intelligence \(AI\)](#). AI can be used as a mean to advance nurse researchers’ collection of patient’s data and to open new pathways of research.

In this vein, an standard definition of what AI is the following: the simulation of human intelligence in man-made machines programmed to be as close as technologically possible to imitate certain human actions. The term may apply to machines (e.g., robots) or software programs that are capable of problem-solving

and learning. The defining characteristic of all AIs is their ability to rationalise (within their realm) and take actions towards achieving the best goal they were programmed for. All AIs have three overarching characteristics: learning, reasoning, and perception.

Aiming to support nursing researchers closing the implementation gap between these three areas (nursing research, GDPR, and AI) the ENRF joined a one-day [high-level virtual conference](#) organised by the [University of Vienna](#) (the full programme is available [online](#)). This conference addressed the debates surrounding the regulatory framework and use of new technologies in the healthcare sector, in particular, in light of privacy and data protection. The conference addressed the application of these topics into transitional AI research projects, too.

The first speaker, Dipak Kalra (i~HD), explained how the use of health data has huge potentials for research, even though it presents some challenges: the broader public not understanding why their health data is being used, the reasons why health data is used for purposes that often lie far away from patient’s benefit, the diversity of stakeholders involved, etc. However, nurse researchers are uniquely positioned to address these challenges as they have equal access to the nursing workforce, the patients, and other researchers alike. They can address other common problems often found in data collection and usage. An example would be to look at all the data-related aspects that are not explicitly addressed by the GDPR, but where

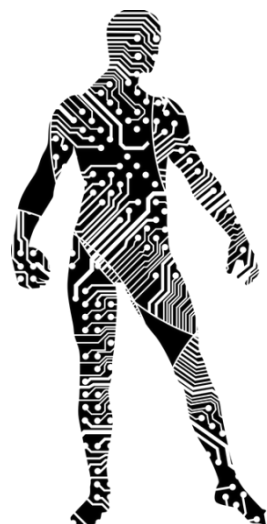


compliance is still a must. Nurse researchers can use their expertise to build new approaches on how to be GDPR compliant by creating innovative ways to anonymise data collection and usage.



Another possible research pathway would be the implementation of AI technologies to nursing care and how these falls into already existing regulation (mainly the GDPR) and may need further regulation in some areas. Stefan Panic (DLA Piper) explained that, in this sense, GDPR may be too restricting. Nevertheless, nurse researchers can look into how to “bypass” this restriction by broadening the borders of data protection into the frontline reality using new digital technologies. As Sabine Fehringer (DLA Piper) argued, this too applies to AI. AI is very much present in our lives, but it is not always explicitly regulated – which is causing some data protection, privacy, and regulatory issues.

Nurse researchers should bear in mind that one of the major advancements brought in by the GDPR is that data protection and data security should from now on always be implemented by default and by design – a point in which Fruzsina Molnár-Gábor (Heidelberg University) elaborated further, by adding that this change constitutes a new “mindset” of its own.



Elaborating on that latter point, nurse researchers may understand and apply the GDPR not as a “tool” but rather as a “toolbox” that must be utilised across all stages of data collection, usage and storage. By doing it this way, Nathan Lea (i~HD) argued that the major challenges brought by the implementation of GDPR and Artificial intelligence in healthcare projects would be tackled from the start. These challenges are 1) privacy, and 2) the fear of malicious software attacks (these were identified by Edgar Weippl from the University of Vienna).

To conclude, nurse researchers should look at the great prospects that GDPR and AI have in the field of healthcare. While they do so, they will need to examine how to strengthen the security and privacy of everything that implies data. They know better than anyone that when using patient’s data, the focus is on protecting that data with the view to protect the individual right and freedom of those who first produced it.

Finally, as several speakers during the conference highlighted (e.g., Jan Schallaböck from iRights Law), implementing data-privacy and data-security by default and by design increases acceptance and deployment on new AI and digital health tools. And increased acceptance and deployment mean greater impact – which increases the quality and the continuity of care.

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