



EFN POSITION PAPER ON ROBOTICS IN NURSING

Statistics draw a general picture of growing importance of robotics. Between 2010 and 2014 the average increase in sales of robots stood at 17% per year and in 2014 sales rose by 29%, the highest year-on-year increase ever. At the same time, annual patent filings for robotics technology have tripled over the last decade.

The idea of combining nurses and robotics is not completely new. Already in 2007, the European Commission financed the [IWARD project](#) that was set out to assist nurses in their daily work. The robots' tasks were focused on fast identification and location of patients needing immediate attention; reduction of human errors; effective cleaning in hospitals; wider reach of specialist medics, possibly attending patients remotely. Robots can perform tasks that complement the work of nurses more, lowering the workload of nurses and supporting continuity of care with technology advances, and assist nurses in their daily practice in ways that were unthinkable before. For these developments to take the right direction, a stimulating legislative framework is needed as well as a continuous dialogue between industry and the nursing profession.

As far as legislation is concerned, Ms. Delvaux (MEP – S&D) recently lead an [own-initiative report](#) of the Legal Affairs Committee on the topic of robotics and Artificial Intelligence (AI) adopted by the European Parliament on 16 February 2017. Although several foreign jurisdictions, like the US, Japan, China and South Korea, are considering, and to a certain extent have already taken, regulatory action with respect to robotics, in Europe this trend is still a step behind. Some Member States have already started to reflect on possible legislative changes in order to take account of emerging applications of such technologies and the National Nurses Associations need to take a pro-active stand to make these legal frameworks 'fit for purpose' and 'fit for nursing'.

Naturally, the first issue to be discussed and examined, is that of a definition of what qualifies as a "robot" in the EU and what differentiates a robot from a machine or tool. Special attention should be given to specific aspects of those legislative initiatives impacting on the daily work of nurses. When it comes to liability, legal responsibility could arise from a robot's harmful action affecting potentially both the supervising professional and the producer¹. The division of liability could depend on various factors such as the extent of autonomy of the robot, the need (or lack thereof) of supervision/operation.

Especially when it comes to the interaction of robots and healthcare (care robots, nursing robots, medical robots), ethical consideration but also standardisation, safety and security are of vital importance. A harmonised, standardised legal environment will enable and promote cross-border cooperation between Member States. When it comes to care robots, the importance of the human factor is important to be stressed. The EFN supports care robots which would support the nursing staff of various facilities. Robots are not making nurses redundant, in contrast they support the highly qualified and motivated nursing workforce to deliver safe and high quality care.

However, the nurses' digital skills will need to be further developed, so that they can deal with those emerging technologies. For instance, working with robots in dementia care needs a different mind-set and different operations. The e-skills nurses need are going way beyond the use of a pc

¹ On the latter, existing European legislation could be applicable: Council Directive 85/374/EEC of 25 July 1985 on the approximation of the laws, regulations and administrative provisions of the Member States concerning liability for defective products (OJ L 210, 7.8.1985, p. 29)

or an online platform for data communication. Advanced robotics skills are a new field of expertise to be developed for and with the nurses. CPD will therefore play a central role to secure engagement, safety, quality and sustainability.

A final aspect that should be underlined is the importance of a constant dialogue between industry and the nursing profession. The industry and researchers, when it comes to robotics in the health and social care ecosystem, should be informed by the human experience in all aspects of care. The algorithms running the robot need that final touch of nurses to make it all gender sensitive. The algorithms, need to have nursing indicators integrated to keep the design and deployment 'fit for purpose'. If not, robotics will end up in the utility room. Nurses can identify tasks and situations in which robotics could and should be useful; all developments should be based on this information. It is not the healthcare team that has to adapt its work to the technological developments, but vice-versa. Of course, this requires a continuous dialogue with SMEs, big industry and labs, helping the development of the digital skills of nurses when designing robots.

The EFN therefore:

- Encourages national and European policy-makers to start considering the legislation of robotics and artificial intelligence, especially in the areas of liability and ethics. It is important to take up the nurses' experiences in working with robots, especially in elderly care. Any potential legislation needs to be fit for purpose and support the nurses in their daily activities, instead of creating a burden in time-management. Robots needs to bring nurses closer to patients and enable nurses to deliver safe and high quality care;
- Favours the coherent approach to regulation at European level with the full and transparent engagement of the nursing profession. As shown by the collaboration with DG GROW on Directives 36 and 55, the Commission needs to talk with the profession and not about the profession. The Commission will need to provide the platforms for engagement and listen to frontline. We would even go a step further, frontline should lead change;
- Calls for an extensive dialogue between industry and the EFN, representing frontline nurses and their political leaders within the EU. This dialogue needs to be based on mutual trust, respect and transparency. Although we understand Industry 'needs to sell', or at least have a return on investment, it is crucial SMEs and big Industries learn to work with nurses to design products which are user-friendly;
- Motivates nursing researchers to bring efforts and findings together to support EU policies with evidence in the field of robotics. The EFN encourages to strengthen the European Nursing Research Foundation, collecting the evidence for EU policy-making. The EFN and the ENRF need to work very closely together to close the gap between theory and practice, and the gap between politics and reality;
- Calls for allocation of funding to further research and innovation in the area of robotics in nursing at both national and European level. The revision of the H2020 programme and the design of the 9th Framework Program is therefore crucial to get engaged in. Furthermore, the newly designed [European Innovation Council](#) should be sensitive to innovation in nursing. Nursing has a lot to offer on robotics to tackle the societal challenges. A good example is dementia care.

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