

Motivation Letter

Medicine has become more digital than before. Almost every service in healthcare today is delivered using some kind of digital platform or interface. Resource optimization nowadays is reached thanks to digital focalisation to the problems. Nowadays it is impossible to imagine a healthcare institute, hospital or outpatient clinics without an electronic health record system (EHR). All the diagnostic systems nowadays can 'talk' to EHR systems transmitting digital data.

Complete digitalisation should be the final point of complete transformation. However, it is not an easy task: regulations, legislations and ethical integrity should be guaranteed. Current ethical standards should be revisited in order to accommodate new emerging horizons.

There are several new fields that are emerging that were not present before: AI in its different forms (deep learning models and large language models). All this movement should not be restricted by ethical and privacy constraints.

Complete digitalisation is characterized also with creation of our complete digital twins which can help in all senses to promote personalised medicine. Artificial intelligence in this contest can exploit the whole power of the digital data and was not even imaginable for less than 10 years ago.

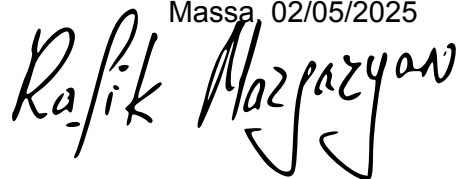
All this transformation should be carefully thought and guided by experts of the fields, IT professionals while respecting all the ethical rules and considerations. First of all one should understand the problem having done complete data and conceptual analysis and then adopt the ad hoc correction if necessary in order to guide the transformation forward.

Digital transformation could last forever, that is why we should put robust fundamentals from future developments and, in my opinion, conceptual thinking in this area has utmost importance.

Domain knowledge is undeniably the most important factor for guiding transformation: boosted knowledge of AI and data science is in my opinion a winning combination.

Rafik Margaryan, MD, PhD

Massa, 02/05/2025

A handwritten signature in black ink, reading 'Rafik Margaryan'. The signature is written in a cursive, flowing style with a large initial 'R' and 'M'.