



DIG PhD scholarship

Title	Impact Assessment of Digital Innovation in Health Care
Theme	<p>Digital technology offers the paramount opportunity to rethink how healthcare is organized and managed. Telemedicine, artificial intelligence, robotics, Apps, 3D printing, Digital Therapeutics, Wearables, etc. are just a few examples of the digital technologies that are reshaping healthcare delivery. However, even a cursory review of the current literature would show that policymakers, hospital managers, healthcare professionals, equity investors and banks are left without clear frameworks and guidelines to assess the benefits and costs of this digital innovation. On the one hand, typical financial approaches (e.g., net present value, strategic options, social return on investment etc.) are not able to capture the peculiarities of the healthcare context. On the other hand, typical approaches from health economics (cost-benefit analysis, health technology assessment, multi-criteria decision analysis etc.) are not able to capture the peculiarities of digital innovation respect to other healthcare technologies like pharmaceuticals and medical devices. In the light of this, there is a significant space for a doctoral research that aims at advancing both theory and practice of impact assessment of digital innovation in healthcare. The doctoral student will have the opportunities to leverage both the data and the network of the Permanent Observatory run at Politecnico di Milano on “Digital Innovation of Healthcare” that collected primary data about the digital transformation of the Healthcare System in Italy in the last 15 years collaborating with the major players in this ecosystem.</p> <p>This broad research theme encompasses several topics as for example:</p> <ul style="list-style-type: none"> • How to measure the value/impact of digital innovations in healthcare? • How to measure the sustainability of digital innovation in healthcare? • How to measure the organizational impacts of digital innovation in healthcare? • How to include intangibles (e.g., intellectual capital, social capital, etc.) in the measurement framework for digital innovations in healthcare? • How digital innovation might contribute to Value-based Healthcare? • How the concept of value/impact might change according to different perspective of analysis (e.g., from the healthcare system perspective? From the hospital perspective? From the patient/caregiver/citizen perspective?) • How to measure the value/impact of digital innovations at different level of maturity? • What might be the connection with Foresight and Horizon Scanning? • How to measure the value generated by new business models enabled by digital innovations? • How to run a financial evaluation of start-ups whose MVP is a digital technology/innovation for the healthcare?
DIG professors involved	Emanuele Lettieri, Antonio Ghezzi, Cristina Masella, Giovanni Toletti, Andrea Rangone, Marco Giorgino, Raffaello Balocco
International collaborations	Prof Giovanni Radaelli (Warwick Business School – UK) Prof Andreas Hellström (Chalmers University of Technology – Sweden)



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