

ELEcTric: Entrepreneurial Leadership in assessing Emergent Technologies in primary care. A design research project in GP-education.

General Practitioners (GPs) are increasingly confronted with challenges that are also known as Brittle, Anxious, Non-linear and Incomprehensible (BANI). One of the main features of a BANI-world is fast-paced and accelerating technological innovations requiring from GPs adaptive expertise, academic attitude and entrepreneurial leadership. The study's objective is to design and implement GP-education on evidence informed entrepreneurial leadership in critical technology assessment and data-driven innovations in primary care, to prepare future GPs for their role in transitioning health care. In this collaborative project between two GP-educational institutes (Rotterdam and Leiden), design research is applied enabling the involvement of end-users as co-designers (GP-trainees, supervisors, faculties and patients) in the design, implementation, assessment and re-design of this education. The combination of knowledge and expertise available in both institutes will have a more meaningful impact in making GP-education future-proof. Rotterdam has expertise on promoting critical reflection and approaching technology assessment from an academic perspective in institutional education. Leiden has expertise on the development of medical and organizational leadership in the context of population based primary care with an emphasis on data, on workplace learning and on the patient as educator. Together we harness our expertise to address the need of evidence-informed leadership related to emergent technological innovations in primary care. The design and implementation process are facilitated by two collaborating living labs: one living lab on academic technology education based in the educational institutes (Rotterdam) and one focusing on workplace learning related to entrepreneurial leadership skills based in a GP-care cooperation (Leiden). Theory and practice are bridged by formulating design principles that are informing learning experiments, with actual learning situations being used to expand on the design principles. The results of the living labs are captured in eight studies with different foci and methodologies. To explore relevant present knowledge, two literature studies are performed, one on the role of technology assessments in stimulating critical reflection (Rotterdam) and two on adaptive expertise development and critical reflection on workplace in the BANI-world (Leiden). GP-trainee, supervisor and teacher needs on technology education are explored using focus-groups (Rotterdam) and by applying the Rich Picture methodology we assess how GP-trainees regulate their workplace learning related to digital health and data-driven care (Leiden). Expert interviews are organized to better understand the principles of

evidence-based assessment of emergent technologies (Rotterdam) while Leiden is using a phenomenological approach to understand the essence of evidence-informed entrepreneurial leadership related to emergent technological innovations in the health domain. Last, a new evidence-informed educational framework for the assessment of emergent technological innovations evidence-based assessments of technological innovations is developed and tested (Rotterdam). In Leiden the intended and unintended outcomes of the living lab in the GP-care cooperation are assessed using Ripple Effects Management. Our project results in evidence-informed GP-education on leadership in critical technology assessment and data-driven innovations in primary care. Internationally, the study contributes to the body of knowledge on the development of adaptive expertise, leadership and academic attitude of health professionals. We provide an evidence-informed educational framework for the critical assessment of health technologies in

primary care practice. Last, our results contribute to design-based curriculum innovations in post-graduate medical education.

(Voor dit project zoeken wij alleen nog een AIOTHO voor in Leiden)