#### Luiss

Department of Business and Management

# Dalla rappresentazione del problema allo sviluppo di soluzioni

Come far convergere obiettivi di ricerca e trasferimento tecnologico?

Prof. Paolo Spagnoletti









#### Paolo Spagnoletti

http://www.linkedin.com/in/pspagnoletti

- Associate Professor of Digital Business and Workplace Technology, Data Privacy and Security at Luiss
- Board member of the national Competence Center Cyber 4.0
- Member of the Research Center on Leadership Innovation and Organization at Luiss
- Member of the *Center for Integrated Emergency Management* at University of Agder (Norway), European Research Center in Information Systems (Germany)
- Visiting Professor in Norway (UiA), France (PSL, Skema), UK (WBS), Switzerland (UniL),
  United States (GSU)
- PhD Information Systems Luiss (2007), MSc Degree Electronic Eng. Sapienza (2001)

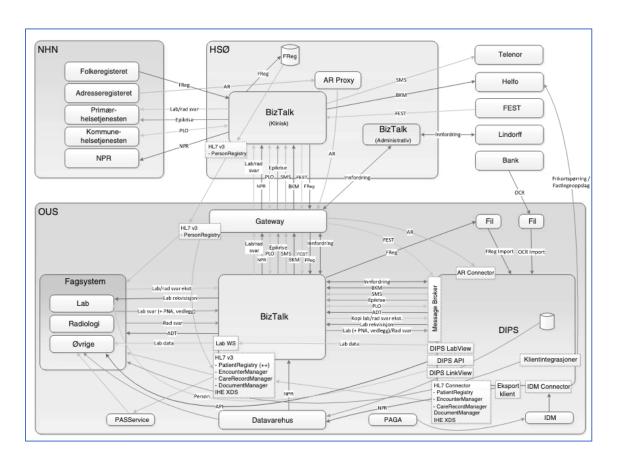




### Agenda

- Trasferire tecnologia tra *Lightweight* e *Heavyweight IT*
- Action Design Research
- Esperienze Luiss: DPsOC, OA, DIM
- Opportunità per il futuro

#### Trasferire tecnologia al confine tra Lightweight e Heavyweight IT



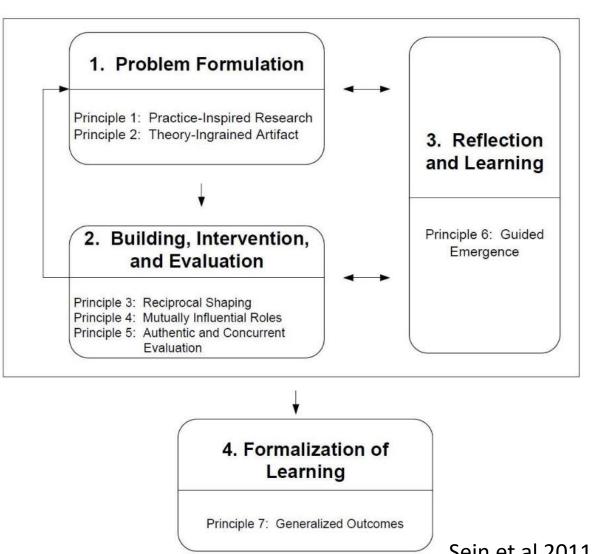
- integration and consumerization trends
- IT-based innovation based on two different knowledge regimes: network of technology, designers and users
- lightweight IT: innovation to deploy cheap and easy-to-use solutions
- heavyweight IT: engineering to systematically deploy fully integrated and reliable solutions
- Generativity arise from interactions between heavyweight and lightweight IT



#### Action Design Research

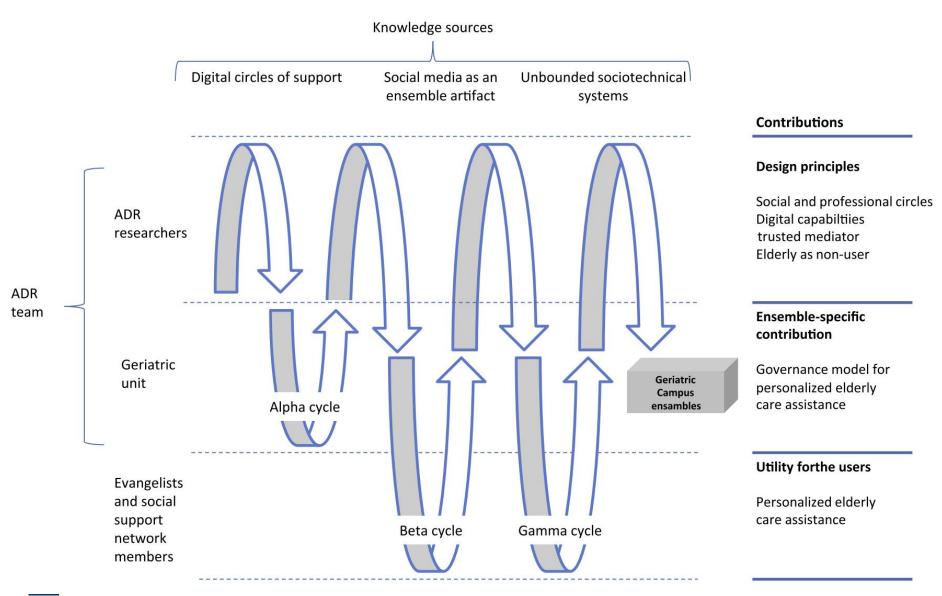
Un metodo per sviluppare teorie risolvendo importanti problemi di business

- identificare un problema e ricondurlo a una classe più generale di problemi
- sviluppare un artefatto e sperimentarne l'utilizzo di uno o più contesti
- Generalizzare la conoscenza acquisita rispetto alla classe di problemi
- Formalizzare la conoscenza con contributi a teorie precedenti









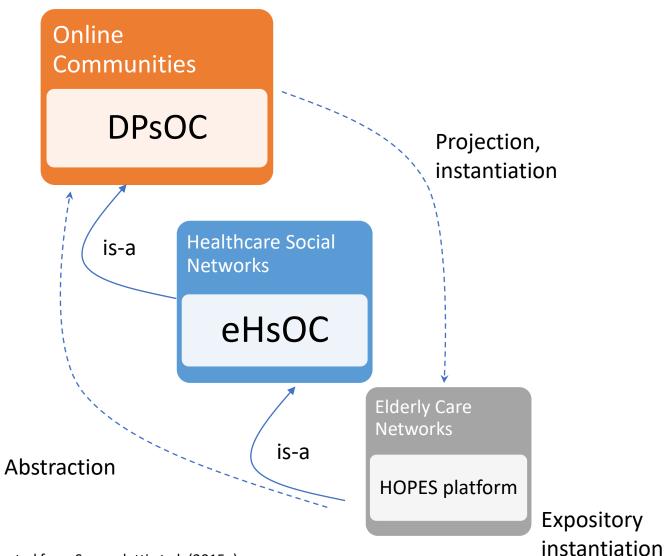




## Esperienze Luiss: Piattaforme digitali (1/3)











## Esperienze Luiss: Agilità organizzativa (2/3)

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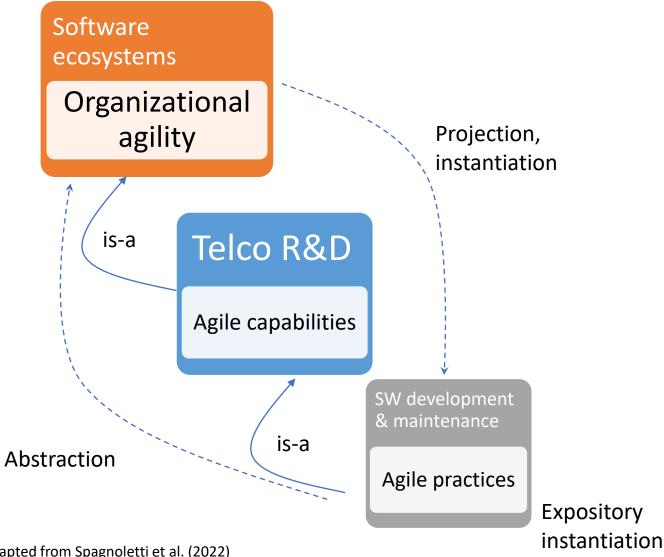
#### Agile Practices and Organizational Agility in Software Ecosystems

Paolo Spagnoletti , Niloofar Kazemargi, and Andrea Prencipe

larger ecosystems, research and development (R&D) units of software producers organize themselves around projects to become more responsive to the environment. Organizations participating in software ecosystems must continuously adapt and adjust their software development and maintenance processes to drive both medium-term and long-term innovation. Agile methods and practices are widely adopted to guide the collaboration within and between project teams in software development. Moreover, when successfully attained, agility can drive innovation by enabling software development organizations to cope with technological changes and exploit emerging opportunities in software ecosystems. In this article, we focus on how organizations attain agility in the maintenance and development of software products. To answer this question, we conduct a longitudinal case study of Agile Scrum implementation in the R&D unit of a major supplier of telecommunication equipment. We investigate the emerging tensions and highlight practices used to balance these tensions in the Agile Scrum implementation. We identify four capabilities and ten practices that support effective collaboration and coordination in the development and maintenance of software products. The study offers practical guidance for R&D managers to attain agility in software

Abstract—As software products increasingly become part of [2]. Agility refers to the ability of organizations to sense and respond to constant changes [9], [10]. As innovation is embodied in software ecosystems, attaining agility is particularly important for organizations embedded within an ecosystem to survive or sustain their competitive position [11].

Software producers are increasingly adopting agile methods to enhance flexibility [12] and foster innovation [1], [13]. An example is Scrum, a software development method inspired by the metaphor of a rugby scrum, whose key practices are iterative development cycles named "sprints" that are used to develop modules of a software product [14]. Nonetheless, most organizations face challenges in the adoption and implementation of agile methods [15]-[17]. For example, in their study, Dingsøyr et al. [18] address the challenges of agile methods when applied to large-scale software development projects, as a large number of teams and multiple stakeholders influence coordination among teams and impact the sustainability of the software architecture. The challenges can be exacerbated as agility encompasses paradoxical tensions between different needs. For







## Esperienze Luiss: Digital Innovation (3/3)

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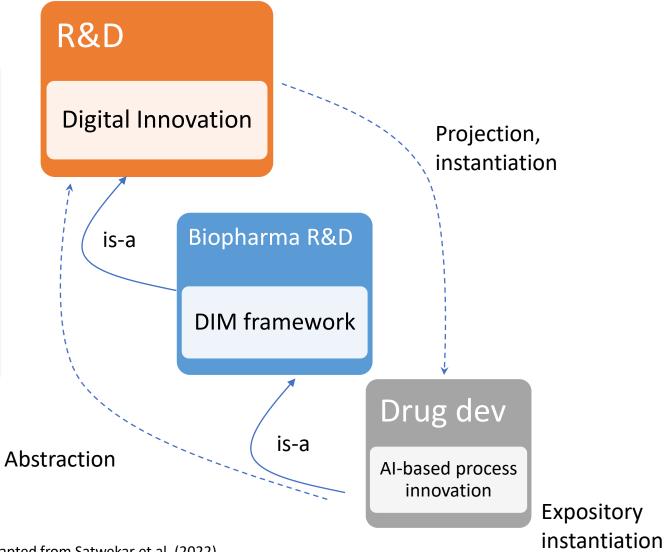
#### An Orchestration Framework for Digital Innovation: Lessons From the Healthcare Industry

Abhijeet Satwekar<sup>®</sup>, Tiziano Volpentesta<sup>®</sup>, Paolo Spagnoletti<sup>®</sup>, and Mara Rossi

Abstract-The healthcare industry is continuously evolving with innovative discoveries and therapies, and at the same time, there is a decline in the research and development productivity leading to an increased cost for payers, providers, and patients. Despite the benefits that digital technologies can have on healthcare innovation, such a highly regulated industry often relies on proven-established technologies and organizational procedures that can be at odds with the new logics of digital innovation. In this article, we will be introducing a digital innovation management (DIM) framework that guides the pursuit of digital innovations in a phase-appropriate and incremental setup (e.g., scale, costs, risks, value evaluations, policies, and resources). The framework is designed and validated through an iterative process of continuous adaptation with local practices in a biopharmaceutical company. DIM provides practical guidance to drive digital innovations that entail different logics compared to traditional innovations, by improving the visibility of the digital innovation process and increasing organizational confidence in pursuing digital innovations and enhancing decisionmaking effectiveness.

value creation for a multistakeholder audience, which involves patients, physicians, pharmacies, hospitals, regulatory agencies, pharmaceutical and biopharmaceutical companies, nongovernment bodies, insurance companies, and many more.

Pharmaceutical and biopharmaceutical companies are an integral part of the healthcare ecosystem and operate collectively with the multistakeholders of the healthcare sector with the responsibility to discover, develop, manufacture, and distribute medications and therapies toward the underlying health conditions of individuals and improve their quality of life. Pharmaceutical and biopharmaceutical products differ in complexity [9] leading to a wide gap in production costs [10]. Specifically for biopharmaceutical companies, there has been a decrease in research and development productivity, leading to increased costs within the past few decades [11], [12]. To bring a new biopharmaceutical drug to a patient, the costs have increased







#### Opportunità di collaborazione nel campo della data governance

- tesi di laurea magistrale in Data Science and Management
- sviluppo congiunto di teaching cases
- borse di dottorato: Cybersecurity, Management, Diritto e Impresa
- commesse di ricerca: Center for Leadership, Innovation and Organization, Cyber 4.0
- progetti Europei: ERCIS network

#### Riferimenti

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## Grazie dell'attenzione

http://www.linkedin.com/in/pspagnoletti