

R&D Management Journal Special Issue

“Open Innovation in the Digital Age”

Guest editor team (in alphabetical order):

- Marcel Bogers, University of Copenhagen, Denmark
- Henry Chesbrough, University of California, Berkeley, USA
- Ellen Enkel, Zeppelin University, Germany

Background for the Special Issue of R&D Management:

One of the erosion factors that has augmented firms' ability to “leverage increasingly distributed knowledge sources [is] the rise of the Internet (and the related rise of social media), which has brought the knowledge access and sharing capabilities of previously firm-specific internal ICT [information and communication technologies] networks to the World Wide Web” (Chesbrough & Bogers, 2014: 16). This shift has implications for open innovation ranging from how individuals share knowledge within and outside the organization (Dodgson, et al., 2006; Dahlander et al., 2016; Salter et al., 2014) to how organizations manage knowledge flows in innovation ecosystems and platforms (Nambisan & Baron, 2013; Gawer & Cusumano, 2014; Rohrbeck et al., 2009).

The digital age provides new enabling factors for generating, sharing, retrieving and storing data, information or knowledge that could dramatically impact how organizations manage their boundaries (Dougherty & Dunne, 2012; Fitzgerald et al., 2013; Whelan et al., 2010). In many cases, managers need to let go of the traditional logic of managing knowledge for innovation that may reside inside or outside the organization, but instead need to find new ways of managing the entire ecosystem where complementary partners are co-innovating new solutions that they can only establish together (cf. Chesbrough et al., 2014; Rayna & Striukova, 2015; van der Borgh et al., 2012).

Digital technologies have a far-reaching impact on how individual and organizations innovate together. Moreover, notions as alliances, innovation ecosystems, and the triple helix gain new importance in the digital age (cf. Adner & Kapoor, 2010; Etzkowitz & Leydesdorff, 2000; Faems et al., 2010). The increased opportunities of identifying the solution to an innovation problem through distant search has given rise to new innovation processes and business models, such as crowdsourcing and innovation intermediaries. This is causing important challenges for established firms and startups alike as well as for governments and other organizations.

All in all, the digital age provides many opportunities and challenges to the domain of open innovation. While this has major implications for practice, there are also important research questions arising from this background. In the conference and associated special issue, we aim to explore some of these questions, which may be explored using a variety of theoretical perspectives and research designs.

Case for the special issue:

In this call for papers, our aim is to highlight the need to further our understanding about how open innovation is affected by the digital transformation. The digital age provides many opportunities and challenges for knowledge flows across organizational boundaries to support innovation

processes. We can identify several themes associated with research questions, which include (but are surely not limited to):

1) *The nature of collaboration in the digital age*

- How to enable (virtual) collaboration in the digital age, ranging from gatekeepers to ecosystems?
- What do open business models in the digital age look like, and how do they complement or substitute other business models?
- What are new mechanisms to source, share, filter and evaluate external knowledge?

2) *New partners and sources*

- How can digital technologies help to identify new sources of knowledge in an innovation ecosystem?
- How to use open innovation to leverage “smart” solutions (such as smart factories or smart cities)?
- Which influence has big or linked data on open innovation?

3) *Methodological and empirical opportunities of studying open innovation in the digital age*

- How to analyze open innovation collaboration in terms of their boundaries, leverage, scope, structure and dynamics?
- What are novel ways of examining the interdependency and co-evolution in the open innovation context (multi-method and big data-driven approaches)?
- Which actionable research designs could enable both theory building and practical development?

4) *Technologies, platforms and methodologies*

- What is the role of digital technologies and platforms in enabling the connectivity and collaboration between actors (e.g., big data and Industry 4.0)?
- How does the nature of platform differ from other types of innovation collaboration?
- Are there new methods and tools necessary to enable or investigate collaboration in the digital age?

Paper Submission

- February 15, 2017: Submission deadline for papers submitted to *R&D Management* (please clearly indicate the special issue *Open Innovation in the digital age*).

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