

## **Inter-InnoLab Collaboration**

Conceptualization, Assessment, and Technological Supportive Artifact of the Interconnection  
among Innovation Laboratories

**M.Sc. Atia Bano Memon**

---

Over the recent years, the paradigm of Innovation Laboratories (abr. InnoLabs) is gaining an increasing attention among business organizations as a potential source of assistance in the process of the development of new or the improvement of their existing products and/or services. Business organizations approach InnoLabs in the search for assistance in dealing with the challenges of the often times complex and uncertain innovation process, and ultimately become successful in their innovation projects. Albeit the overall goal of the existing InnoLabs is to support the systematic, effective, efficient, and successful innovation development, they observe innovation process from different perspectives, target different innovation challenges, and thereby vary in their focus and service offerings. As a consequence, a certain InnoLab is capable of mediating only a part of the innovation process or providing a certain kind of innovation support. Accordingly, all the innovation supportive services that might be needed in the course of an innovation process remains fragmented among different isolated and geographically dispersed InnoLabs, and therefore, an organization seeking innovation assistance need to engage in cooperation with multiple InnoLabs in order to get all the required support in course of a single innovation project.

In this esteem, the present thesis aims to centralize all the mediated support offered by the InnoLabs by bringing them into a collaborative network. In pursuance of this, given that the previous studies have discussed the topic of InnoLabs either abstractly or based on experiences specific to a particular case study, this work started with an investigation of the diverse nature of InnoLabs with respect to their structural and functional manifestations in field settings by employing a triangulation of online survey and in-depth expert interviews with InnoLab facilitators in concurrence with personal observation of their working environments. As a result, the thesis establishes a well refined definition of the InnoLab paradigm, frames a service based taxonomy of InnoLabs, constructs a criteria for InnoLab characterization, and identifies the several propositions that the existing InnoLabs contribute towards the success in an innovation project. Subsequently, based on the diversity observed herein and the challenges that such diversity brings to the potential of InnoLabs in supporting sustainable innovation development throughout the innovation process, the incentives, approaches, possibilities, current extent, and the obstructions of interconnection among InnoLabs are determined.

Having conceptualized the framework for inter-InnoLab collaboration (collaborative networking among InnoLabs), the next part of this thesis deals with facilitating such collaborations in an online space. The internet, since its inception, has drastically altered the

practices of intra- and inter-organizational connectivity. Currently, there exist a myriad of web-based communication/collaboration services (tools, technologies, applications, and platforms), nevertheless, they all support the collaboration process only in part whereby most of them are targeted to facilitate the interaction and information exchange between the participating parties providing a very little support for the further stages of the collaboration process. Increasingly, in such circumstances of the distributed and scant technological support for the collaboration process, Social Networking Sites (abr. SNSs) are believed to integrate a number of necessary services at one place and are thus gaining a rapid popularity among all types of organizations as an efficient medium for reaching out to a global audience. Nowadays, almost every organization uses one or other SNS for achieving one or other organizational goal. As a result, a significant amount of the information about the businesses and their competencies is already available and continuously accumulating on these sites. However, they fall inadequate in supporting the inter-organizational collaboration because of the missing dedicated functionalities, isolated platform boundaries, platform dependencies, lack of support for domain-specific features, privacy concerns, and issues of data transparency. In response to this, this thesis advocates the designing of dedicated and domain specific inter-organizational collaboration platforms with seamless integration of the data from the SNSs.

Successively, employing a design science research approach, a novel web-based collaboration platform (the InnoLab\_Net) is developed for the InnoLabs that integrates the business pages and relevant information from four leading SNSs (Facebook, LinkedIn, Google+, and Xing) with the domain specific attributes and dedicated functionalities of inter-InnoLab collaboration. The platform supports the collaborative networking among InnoLabs by facilitating four broad functionalities: 1) defining own competencies and discovering others' competencies in terms of InnoLab specific features, 2) identifying the common goals and interacting with each other with the aggregation of the information and communication services from the SNSs and Skype functionality, 3) selecting the potential partners and collaborating with the selected ones with respect to the different stages of the innovation process, and 4) managing and evolving the long term relations through the team evaluation and computation of network and collaboration metrics. The functional evaluation of the InnoLab\_Net platform has been undertaken by its intended audience (InnoLab facilitators) and has shown positive results in terms of its effectiveness, usability, and completeness in supporting the InnoLabs in attaining the higher levels of inter-InnoLab collaboration.