

Digital Business Ecosystems

Roel Wieringa

The Value Engineers, Soest, The Netherlands

Abstract

In this master class I show what the role of ecosystems in business innovation and digital transformation is. We provide a definition and give examples of digital business ecosystems and show how to develop and test business models for ecosystems. Then, in three steps, we develop a value proposition for an ecosystem, design the value network to deliver it, assess its revenue-generating potential, and map it to the enterprise architecture of participating companies. **Digital business ecosystems.** Business ecosystems are networks of economic entities that depend on each other for their survival and well-being. Companies in a business ecosystem collaborate and compete with each other to deliver value to customers. Digital business ecosystems are IT-enabled business ecosystems. Examples are online marketplaces, smart industry networks, ride hailing systems, and social networks. They consist of buyers, sellers, advertisers, riders, drivers, publishers, smart product manufacturers, cloud service providers and many others whose collective collaboration and competition delivers services online to customers. AI applications too are part of digital business ecosystems. They depend on a network of sensors, smart products, wireless networks, mobile devices, and other entities that are owned or operated by independent economic entities. The network is needed for data collection. Without it, there would be no data to train machine learning systems on. The users of the AI system are also part of the network. **Business models.** These business networks cannot survive if there is no viable business model for them. A business model of a digital business ecosystem must show how each business in the network creates value for the network, how the network delivers value to customers, and how each business captures value (revenue) from this. This is not a process model, because it is not a description of operational activities and their coordination. The business model of a network shows what value objects (products, services or money) are exchanged by the participants of a network to satisfy customer needs. It is the basis for the assessment of commercial viability as well as for the identification of requirements for coordination processes, data sharing, and enterprise architectures. Identifying the business model of a network is crucial to understanding whether the network will survive and thrive. Too often, enterprises try to adopt new technology like blockchain, machine learning or smart product technology because it is hip and hot, without a tested business model that describes how participants sustain themselves when they contribute value to the network. And without a viable business model, technology will fall flat on the ground. Digital business ecosystems need a viable business model. In addition, once a viable business model of a digital business ecosystem has been agreed on, the business model can be used as a source of requirements on enterprise architecture, coordination technology, and data sharing. This master class is based on our recent book "R. Wieringa en J. Gordijn, Digital Business Ecosystems. How to Create, Deliver and Capture Value in Business Networks, TVE Press, 2023."

Keywords

Value Networks, e3value, Business Models, Digital Transformation

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✉ roel@thevalueengineers.nl (R. Wieringa)

🌐 <http://thevalueengineers.nl> (R. Wieringa)



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