Innovative Electronic Business: Current Trends and Future Potentials

Tobias Kollmann, University of Duisburg-Essen, Germany
Patrick Krell, University of Duisburg-Essen, Germany

ABSTRACT

In this paper, the development of the Internet from Web 1.0 to Web 2.0 to Web 3.0 is analysed to define current trends and discover future potential trends. Furthermore, a definition of these different stages is made and supported with examples. Starting with Web 1.0 and the corresponding e-procurement, e-shop and e-marketplace, the first e-business activities are defined. Thereafter, Web 2.0 is determined by innovative e-community systems. Finally, Web 3.0 is characterised by e-customization and e-request platforms. This article creates a clearer understanding of the development of the Internet, defines current trends, and discovers potential trends.

Keywords: E-Business, E-Entrepreneurship, Entrepreneurship, Net Economy, Trends, Web 2.0, Web 3.0

1 INTRODUCTION

The question of the development and the future of the Internet and the associated Net Economy has been analysed by many researchers, because there is scarcely such a dynamic area as within digital data networks (Kollmann, 2011a). While the differences between the Web 1.0 and the Web 2.0 are largely known in literature and practice, we are still at the beginning of the development opportunities as well as the life changing influences these current trends within the information society will have on our future (Kollmann & Lomberg, 2010). In more detail, Kollmann, Kuckertz, and Breugst (2009) have shown that the organizational readiness is strongly related to e-business adoption on a national level. Furthermore, the information as a production factor will increasingly become important and will lead to the development of new innovative business ideas. In recent years, many business ventures were based on this production factor.

The Web 1.0 in particular is characterized by supply-orientated systems, e.g. the focus is on the supply of items or services. Accordingly, private and commercial businessmen use the Internet as another distribution channel to offer their products to the market. Supply-side database systems are used, which were filled with relevant information about the product or service and in which the potential buyer could search for offers that mostly match with his individual needs. Therefore, the products and services are electronically recorded by companies. Corresponding eOffer-, eSales- or eTrading-processes are transacted on the platforms E-Procurement, E-Shop and E-Marketplace (Kollmann, 2011b).
The Web 2.0 is characterised by network systems that connect private and commercial users through the Internet and therefore build up a network of relationships. In this case, the communication via the eNetworking-process stands at the centre, which is transacted by E-Community platforms (Kollmann, 2011b). The contact between the users is of central concern, whereby the communication may relate to private or business content. This development is both a blessing and a curse, since by the rising flood of information a simple overview of the Internet is for the user not given anymore. In this context, time savings through a quick access to desired information no longer exist, because of the massive amount of content on the Internet it increasingly takes more time to find the desired information. For this reason, a new technological generation is needed, which helps users to deal with these challenges.

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The Web 3.0 is based on these challenges and represents a demand-orientated system, where demand-driven products and services are provided. Consequently, following this logic from the Web 1.0 to the Web 2.0, the Web 3.0 is in particular characterized by demand-orientated platforms, e.g. the demand for products and services is at the centre. Starting point here are demand-side detection and specification systems with appropriate selection and entry fields to capture the demand request or the personal need of a potential buyer, so that it is possible for a company to offer an individual product or service (Kollmann, 2011b). This customization determines the difference between a supply-side and a demand-side database request. Corresponding eRequest and eCustomization processes are transacted on E-Desk platforms. This development is summarized in Figure 1. The rapid development of the Internet is facing the question of how the technology and market-oriented future can handle the increasing flood of information and how to deal with this inherent future challenges. This requires a deeper characterization of the three generations (Web 1.0, Web 2.0, Web 3.0) to create a better understanding of this development and to discover trends for 2020.

### 2 WEB 1.0: E-PROCUREMENT, E-SHOP, AND E-MARKETPLACE

The Web 1.0 is in particular characterized by a supply-orientated system, so that the availability of products and services is given. In this context, three different business models (E-Procurement, E-Shop, E-Marketplace) can be distinguished.

#### E-Procurement-Systems

The term E-Procurement consists of the words “electronic” and “procurement” and thus describes the electronic purchase via digital networks. This leads to an integration of innovative information and communication technologies to support operational, tactical and strategic tasks in the procurement area (Kollmann, 2006). The idea of E-Procurement is based on the relevant procurement activities between a businessmen (buyer) and a vendor (seller), which are settled via the Internet and the associated conditions of the electronic information exchange.

The increasing mobility of procurement activities is a key trend in E-Procurement (Mobile Procurement). Both cost and time saving as well as flexibility and quality advantages can be realized through mobile procurement. In this case, mobile devices play an important role, because e.g. mobile orders or mobile payments can lead to competitive advantages (Ng & Yip, 2010). Companies worldwide are using mobile technologies such as laptops or cell phones increasingly to undertake procurement activities independent of place and time. Thus, company intern and cross-company processes with suppliers and partners will be revolutionized, which will open up new opportunities for companies and application developers.

Two interfaces are particularly responsible for the uniform implementation of mobile procurement processes. With Mobile Availability Checks users can verify the availability of products or spare parts with their mobile device. After checking the availability an immediate booking or ordering is possible, without necessarily being in the business premises of...
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