Co-Creation in Social Media Platforms: End-users as Innovation Partners

Online co-innovation within the Open Discovery Space

Wouter Vollenbroek[1] Efthymios Constantinides[2], and Sjoerd de Vries[1]

[1]Department of Media, Communication & Organisation, University of Twente, Enschede, The Netherlands
[2]School of Management and Governance, 7522 NB, Drienerlolaan 5, Enschede, The Netherlands
{w.vollenbroek, e.constantinide, s.a.devries}@utwente.nl

Abstract: Innovation is a way of meeting changing public needs by developing new and better solutions; it is also one of the most extensively discussed issues in the academic literature and field practice. Changing students' behaviour, increasing knowledge development, increasing parents' involvement and new teaching methods that overtake the existing methods creates a certain necessity to develop new knowledge media in collaboration with all educational stakeholders. Under increasing competition and market pressure the innovation process has been subject to important transformation during the last 30 years. Educational publishers changed from being traditionally a "closed', internal process, based on internal organisational expertise and structures (R&D, New Product Department, New product Management etc.) the innovation process is increasingly becoming externally oriented. Chesbrough (2003) popularized the trend of externalizing the innovation process by engaging innovation partners in what he called the Open Innovation model. With the explosion of the social media and the subsequent public empowerment the innovation process is becoming a domain where the end-users and stakeholders are often directly involved (Prahalad and Ramaswamy, 2004); Crowdsourcing and innovation with the end-users and stakeholders is becoming the new innovation norm after closed- and open innovation. In this paper we identify this trend as Online Co-Innovation and explain its main merits in relation to the implementation of the Open Discovery Space project in the Netherlands.

1 INTRODUCTION

Innovation has been always praised as a means of creating and maintaining competitive advantages and is a basic requirement for becoming successful. The development of new innovative knowledge media now no longer depends of the professionals within a publishing company, but requires new innovation methods with an essential role for end-users and stakeholders. The Knowledge Media Institute (n.d.) defines knowledge media as "the processes of generating, understanding and sharing knowledge using several different media, as well as understanding how the use of different media shapes these processes". The publisher has thereby no longer a fixed role as publisher; this role will also be assigned to the end-users (i.e. students and teachers) and stakeholders (i.e. parents) of the knowledge media. The fact that co-innovation enables students, teachers and parents to participate in the production process of a product that fits their individual needs leads to the assumption that they rather choose that product, than the standard products. Franke and Piller (2004), Schreier (2006) and Grissemann and Stokburger-Sauer (2012) provide empirical evidence of a higher willingness to pay for products that are self-designed than for standardized products. One of the main reasons is according to Franke and Piller (2004) the fact that the new products are created with a higher preference fit of the stakeholders, than the standardized products. The new product development process has become an area of focus for many academics and businesses (Leonard-Barton, 1992; Olson et al, 1995). Many businesses and branches give innovation a central place in their mission and market positioning. In the marketing literature the innovation is usually treated as an essential strategic choice and basis of competitive advantage (Kärkkäinen et al, 2010). In an

educational setting it is more a way of fulfilling the needs of the stakeholders. Changing students' behavior, increasing knowledge development, increasing parents' involvement and new teaching methods that overtake the existing methods creates a certain necessity to develop new knowledge media in collaboration with all educational stakeholders. It can be seen as the new paradigm after the closed- and open innovation versions. The European research project 'Open Discovery Space' is one of the first examples of an educational platform that is mainly focused on co-innovating new knowledge media and disseminating these media within European educational institutions. We are responsible for the implementation of ODS in the Netherlands. Within the Netherlands we apply co-innovation as an ODS-implementation strategy. This paper describes the concept 'online co-innovation', his merits and his role in educational settings.

2 INNOVATION PROCESSES

Looking to the development of the innovation concept over de last 100 years we can identify two main innovation models: closed innovation model and open innovation model (Chesbrough, 2003).

2.1 Closed Innovation Model

This approach is the oldest one and has been the dominant business attitude to innovation the largest part of the 21st century. The closed innovation model within an educational setting consists of a new product development process that is based on subsequent development steps (idea generation, idea screening, prototyping, business feasibility, financial analysis, marketing planning, production, market testing, and market introduction).

These steps are consequently followed by new product development project teams or new product departments, in deep secrecy for competitive reasons. The new product development process is therefore internal and requires the presence of clear organizational structures (new product department, new product managers, new product project teams etc.).

The backbone is usually the R&D department and the origin of many of these innovations is based on technology developments. Businesses engaged in this type of innovation often develop all necessary know-how and technologies required internally or often acquire firms having already developed or patented such technologies. The degree of end-user and stakeholder participation in the process depends on the degree of end-user orientation of the firm; typically this was limited to a few stages of the process cycle like the idea generation, prototype evaluation and market testing). End-users and stakeholders were in such cases guided, strictly regulated and limited. Secrecy is after all one of the foundations of this type of innovation.

The main disadvantages of the closed innovation are the high innovation costs and the long time-to-market, high development costs and high failure rates of new products.

2.2 Open Innovation Model

In the beginning of the 90s some new ideas on innovation processes domain begun surfacing. The end-users' and stakeholders' pressure for faster innovation, high failure rates of new products, long time-to-market trajectories, increasing innovation costs and the fast technological change put producers of products and services under pressure to change their innovation tactics; efficient, faster and cheaper innovation methods became the focus of businesses and academia. Kambil, Frissen and Sundaram (1999), Chesbrough (2003), von Hippel (2005) and others put forward the idea of innovating in networks: create networks of supply chain partners, sometimes including even competitors, and develop innovations created through collaboration.

The most obvious place to look for such partners was of course the supply chain (suppliers, middlemen, retailers) but also areas where necessary technological or commercial expertise was present. Many such partners, being much closer to the end-user and stakeholder and the market could contribute better ideas and help avoiding costly mistakes.

Next to such vertical collaborations that were focused on efficiency, also horizontal collaborations became popular in the 90s. Collaboratively developed products like the Senseo coffee machine (developed by Philips and the coffee maker DouweEgberts) or the home draft beer device Beertender (Developed by Heineken and Krups) were some successful early examples of such collaborative efforts.

In both vertical and horizontal innovation ventures a basic issue was always the need for openness and sharing of knowledge. This issue has been a difficult one and it is still an issue today. Open innovation helped businesses to become more efficient, more innovative and reduced costs and

product development time. It also forced firms to become more transparent and open to the idea of sharing financial risks.

2.2.1 Online Co-Innovation

Recent developments in the area of web technologies have placed the end-user and stakeholders of a product or service on an extra powerful position. The Internet technology induced the first wave of market power migration providing consumers with unlimited information, many alternatives and easy transactions (Urban and Com, 2005). The increasing influence of these individuals created a new form of open innovation: the online co-innovation. Online co-innovation is a form of open innovation whereby end-users and other stakeholders of products or services, within the social media, explicitly involve and with a shared leadership participate in the development of innovative products or services.

This form of cooperative innovation has three important characteristics that make them different to closed and open innovation: (1) explicit commitment of end-users and stakeholders of products and services, (2) equivalent positions of these individuals, and (3) shared leadership of these individuals.

Around the mid of the first decade of the 21st century new Internet applications often referred to as Web 2.0 or Social Media provided people with even more power: the end-users and stakeholders of products or services were not anymore the passive receiver of business generated marketing content but had for the first time in history the option to create and consume peer-generated marketing content.

Such new content in the form of product reviews, product advices, recommendations or product advocacy reduced dramatically the customer's dependence on location shopping and marketing information provided by the producer. The social media phenomenon, next to important psychological and social effects, has brought about a new generation of empowerment and smart consumers (Constantinides and Fountain, 2007).

Such consumers demand a greater and more substantial contribution to the innovation process; they favor products and services customized to their specific needs and taste and they are also willing to have a voice or even actively participate in the innovation process, usually without any direct financial incentives. A number of businesses have already realized that harnessing the crowd creativity and wisdom is a new way of innovating.

Forums, bulletin boards, blogs, online social networks, living labs and online communities are some of the social media tools used to harness the creativity of end-users and stakeholders of certain products or services. Within these platforms the individuals have the opportunity to participate and interfere in one or all the development phases (idea generation, idea screening, concept testing, development, and launch) of Crawford and Di Benedetto (2003). This creates an important position for the individuals, because they have a large share in the final decision processes in these development phases. In case of ODS students, teachers and parents collaboratively create and improve knowledge media that will be tested in the crowd within European educational institutions in all educational levels.

The way of working – done by ODS – is also increasingly taking part in other situations, because that allows organizations to improve the personal experiences around their products and services. A way to fulfill this goal is by offering a specific customer at a specific time, on a specific place and in a certain context a wished product or service (Romero & Molina, 2011). A successful innovation is for that reason not only the development of new products, but also enhance the satisfaction and respond to the new demands on quality, quantity, and transparency with regard to the origin of raw materials (suppliers), timeliness (logistics and distribution) and the availability of the product (Omta, 2002).

In some cases the input of the crowd is so rich and abundant that businesses do not see any more need to innovate in house. Lego, Dell computers, Starbucks and Toyota are some of the many examples of firms having fully integrated the final consumer into their innovation process. The idea is that traditional publishing companies of educational knowledge media also change the closed innovation process they currently use, in a collaborative innovation process where stakeholders can participate in the role of publisher. The knowledge of the crowd is bigger than the knowledge of one individual within a publishing company of knowledge media. In the new situation, publishers have not 'a monopoly position' in the development of knowledge media, students, teachers, parents and other stakeholders has a large influence in the development process. Within the online co-innovation paradigm we introduce two basic forms of 'innovators':

- **The amateur innovator:** these are end users or stakeholders of products and services willing to give away time and energy helping businesses with ideas, recommendations or even product testing in exchange of almost nothing. Often such amateur product developers become brand or product advocates by sharing their (i.e. educational) experiences in their social networks. While the motives of these people are at the moment an issue of research the fact of the matter is that a large pool of global talent is available to businesses for free.

- **The professional innovator:** these are usually specialists (can be end-users or stakeholders) who in their free time are working in solving technical or management problems at a fee. These are for example the e-mature teachers within an educational institution. ODS bring together this global talent within professional development schools network by creating an educational e-learning platform where students, teachers and parents can collaboratively create and improve knowledge media. Many businesses in other markets make already use of this global talent pool in solving problems by addressing the crowd wisdom; in this case a fee is paid but usually this fee is much lower than the cost of the product.

We propose that online co-innovation is becoming the new mantra of the new product and service development in educational settings. While extensive research must be still done many companies are positive or even enthusiastic about it. In the Netherlands, businesses are still skeptical about this phenomenon; fear of the unknown and fear of becoming too transparent seem to stay on the way (Social Media Monitor, 2012). However businesses do not need to worry much about revealing secrets; we live already in the era of openness and full transparency. The advent of social media has raised the secrecies surrounding new ideas. Since these ideas are quickly spread within the social media.

4 CONCLUSIONS

Online co-innovation implies opening the doors to end-users and stakeholders of products and services, and evolves them into online co-innovation partners.

Due to the growth of social media, this is a logical step for educational publishing companies to become successful in the 21th century. They have to listen to the voice of the end-users and stakeholders all the way. We assume that using a co-innovation approach to prepare students, teachers and parents of the capabilities and value of ODS, will improve the final implementation process of the Open Discovery Space Platform. We expect that this is because the students, teachers and parents feel that they will get involved in the design process of knowledge media.

Educational learning networks with students, teachers, parents and other educational stakeholders in the ODS-project are some of the valuable examples for these publishing companies to improve the development of knowledge media. The fear of becoming too visible is realistic but beyond the point. The openness of the Internet, the social media revolution and the subsequent end-users and stakeholders empowerment has led, to a new form of transparency and end-users and stakeholders' engagement. The task of the publisher is to find ways to turn this potential threat to opportunity. The students, teachers and parents want to have their voice heard and the publisher should do their best to reach them and harness their creativity, knowledge, experiences and willingness to help. An optimal fit between the needs of the individuals and the publishing company creates broadly accepted and adopted knowledge media.

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