

Juho-Petteri Huhtala, Jari Salo & Seppo Leminen (Eds.)

# **MULTICHANNEL MULTIMARKET MEDIA SERVICES – DYNAMIC MEDIA BUSINESS MODELS, VALUE CHAINS AND ECOSYSTEMS**

Juho-Petteri Huhtala, Jari Salo, Jaakko Hautanen & Seppo Leminen



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SERVICES – DYNAMIC MEDIA  
BUSINESS MODELS, VALUE CHAINS  
AND ECOSYSTEMS**



**Juho-Petteri Huhtala, Jari Salo, Jaakko Hautanen & Seppo Leminen**

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Helsinki, January 1st 2011

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## Executive Summary

This study examines alternative e-business models for both learning and online fantasy gaming industry. Based on a literature review of business models, two complimentary streams of virtual environment business model research are described for the reader. Research in the first stream aims to define the components of an e-business model, while research in the second stream focuses on business model dynamics and tries to explain how various businesses use the Internet to interact and how value is created for customers and other stakeholders. As this study aims to uncover and explain business model dynamics in both learning and online fantasy gaming industry context, it is contributing on the second stream. For assessing various business model options, we gathered data by interviewing overall 10 managers, directors and other key decision makers from learning and online fantasy gaming industry. We also gathered supplementary data from various open sources on the internet.

The study of e-learning industry reveals three key findings: First, virtual environment market in Finland is very fragmented as roughly 150 e-learning firms provides various kinds of e-learning services from content production to e-learning game simulations. In comparison to traditional content pricing, pricing policies are very similar in Finnish context and digital content prices are an average of 160 percent higher than traditional printed content. Secondly, the strategic role of e-learning supplier has a strong impact on business model design in digital industry. Before developing certain e-business model, companies need first to choose which supplier role they want to take in the digital industry. Overall 5 different roles were uncovered: 1) content provider, 2) application provider, 3) hardware provider, 4) service platform provider 5) full service provider. Third, e-learning industry is currently a business model playground where nothing is certain in the future and various business models configurations currently exist. In this study we uncovered 3 service platform business models from U.S. markets, which are *subscription-based licensing model*, *funding based open-source business model* and *franchise/partnerships based open-source business model*. During the last ten years, smaller subscription based business models are emerged into one dominant platform provider (Blackboard) as two open-source business model based platform providers (Sakai and Moodle) have remained as relatively small players.

The study of online fantasy gaming answered two research questions, with the first one regarding the essentials of what would constitute an online fantasy league business model, in addition to how and why the leagues are differentiated. This task was approached by examining the business model of the focal company's fantasy league to establish a basis to compare the findings of the competitor leagues. The answer to the second question is then based on this comparison which allows the drawing of some conclusions of the success factors of a fantasy league business model in different market contexts and thus shed light on this largely unexplored subject. The main theoretical contri-

bution of online fantasy gaming related research is thus in its attempt to explain and depict the logic underlying a specific field of business through the pragmatic application of an established conceptual model.

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# 1 Introduction

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## 1.1 Background

Rapid growth of the Internet and digitization of content have influenced on various media industries. This has led to the point that many media industries are in pressure to thoroughly re-invent their business models and value creation logics (Graham et al., 2004). In the past ten years, only a few media industries, such as computer and video game industry, have succeeded well from the business model transformation process. During that time, computer and video game industry have grown as one of the largest online businesses. According to PricewaterhouseCoopers (2009) video games will be the second-fastest growing market in the entire media sector in 2011, trailing only Internet Advertising. However, industries such as learning are still seeking viable e-business models for building a success in the digital landscape (Hoppe & Breitner, 2003).

In this study we evaluate alternative e-business models for both learning and gaming industries. Based on a literature review of business models, e-business models, e-learning and online gaming the existing business models within both e-learning and online gaming organizations were examined. In order to evaluate business model options, we gathered data by interviewing overall 10 managers, directors and other key decision makers from different learning and gaming companies. In addition, we gathered supplementary data from open sources on the internet. This research was operated as a part of Next Media research program, which was launched in the beginning of 2010. The project members include the publishing companies and research institutions in Finland, such as Aac Global, WSOYpro, Sanoma Games, Aalto University, and VTT Technical Research Centre of Finland.

## 1.2 Objective of the study

Our key objective for this project is to uncover viable consumer-oriented e-business models for both e-learning and online gaming industries. As seen in Figure 1, key research questions assessed for this research project are:

- 1) What is the current market situation among the virtual learning environments available in Finland?

- 2) What are the most relevant business models for combining the printed and digital materials to the various types of services in learning solutions aiming at productization?
- 3) How should the (online gaming/fantasy league) service concepts be developed so that they are scalable to the international market?

	<b>Perspective 1</b> Virtual environments and spaces for multi-market online services	<b>Perspective 2</b> eReading concepts for training and HRD online services	<b>Perspective 3</b> Scalable architectures and processes for multimarket online services
<b>Task 1</b> Business models, value chains and ecosystems in service internationalization	①	②	③
	What is the current market situation among the virtual learning environments available in Finland?	What are the most relevant business models for combining the printed and digital materials to the various services in learning solutions aiming at productization?	How should the service concepts be developed so that they are scalable to the international market?

**Figure 1 - Key research objectives of the research project**

### 1.3 Methods of the study

The study is not going to give any specific recommendation on which business model a company should pursue. However, the study depicts different types of multichannel multimarket media service business model options for further intra- and inter-organizational review. The main data source through, which these business models were captured and described, consists of public data available on the internet, on different newspapers and on in-depth reports as well as of expert statements and interviews.

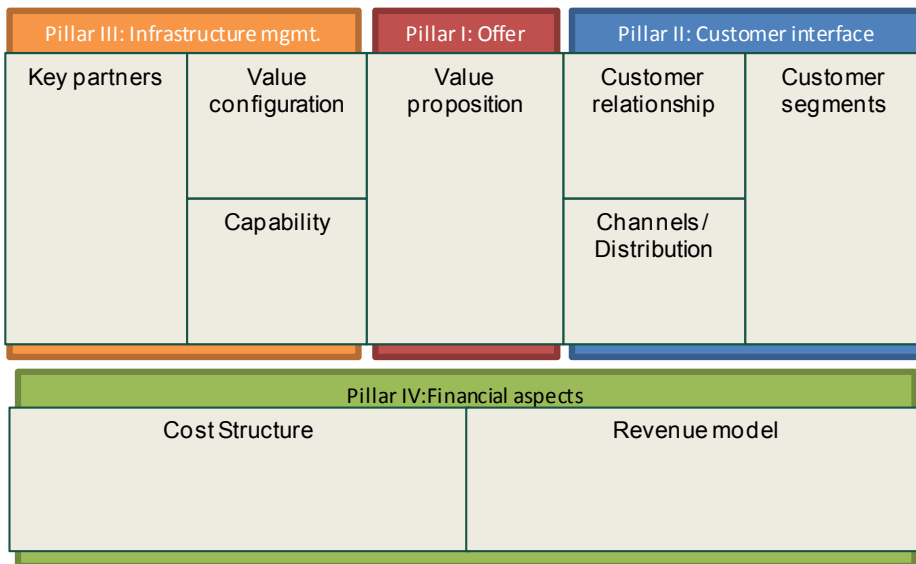
### 1.4 Structure of the study

The study is structured as follows. First, a brief introduction to the study is given in Chapter 1. Second, Chapter 2 depicts virtual environment business model. Third, Chapter 3 represents the current market situation among the virtual learning environments available in Finland and most relevant business model options for both e-learning and fantasy league services. Finally, in Chapter 4, recommendations and managerial implications for multichannel multimarket media services business models development are presented.

## 2 Virtual environment business models

Juho-Petteri Huhtala, Jari Salo & Seppo Leminen

Virtual environment business model research, empirical or conceptual, can be organised around two complimentary streams (Hedman & Kalling, 2003). **First stream** aims to describe and define the components of an e-business model. For example, Timmers (1998) defines an e-business model as the architecture for product, service and information flows, including a description of the various business actors and their roles; and a description of the potential benefits for the various business actors, and a description of the sources of revenues (Timmers, 1998). According to Amit & Zott (2001) e-business model includes 3 components: content (exchanged goods and information), structure (the links between transaction stakeholders), and governance of transactions (the control of the flows of goods, information and resources).



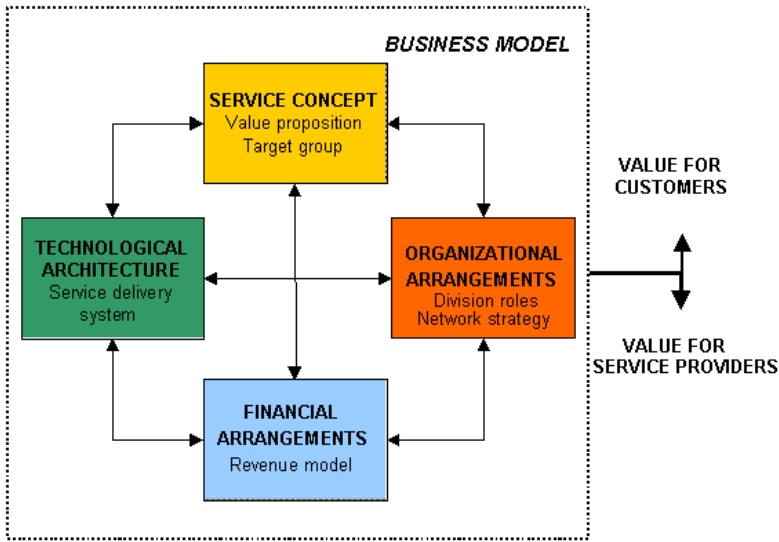
**Figure 2 - Business model architecture (Osterwalder et al., 2005)**

As seen in Figure 2, Osterwalder, Pigneur and Tucci (2005) distinguish four basic elements in their business model: Offer, customer interface, infrastructure management and financial aspects. *Offer* consists of the value proposition for the customer. *Customer interface* consists of overall three parts: customer segments (segments of customers an organization wants to offer value), channels / distribution (various means of an organization to get in touch with

its customers) and relationship (kind of links an organization establishes between itself and its different customer segments). *Infrastructure management* consists also from three components, which are value configuration (arrangement of activities and resources), capability (the core competencies needed to execute the business model) and key partners (partner network with other organizations). Fourth element, *financial aspects*, consists of two components: cost structure (monetary consequences of employing a business model) and revenue model (revenue flows through which an organization makes money).

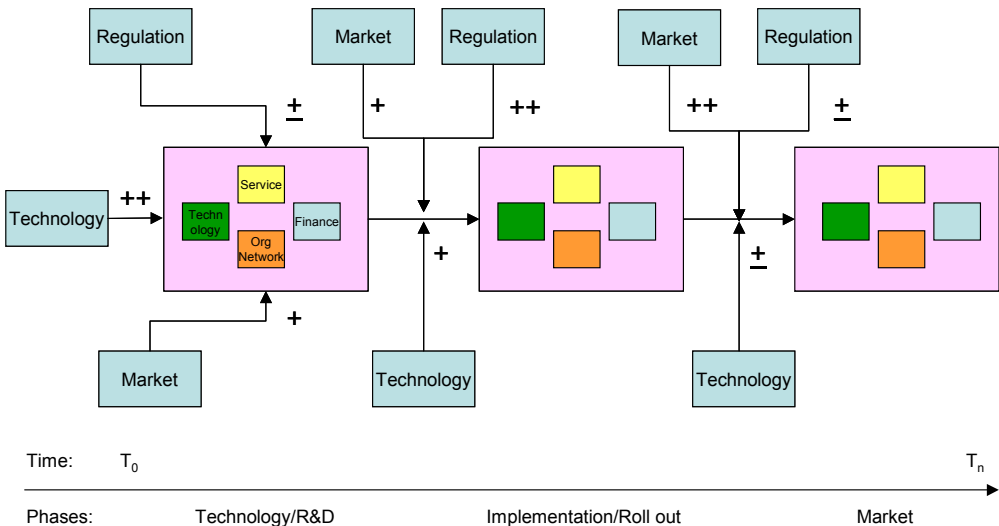
When we compare the various business model definitions, four common components can be distinguished. These components are (Bouwman, Haakert & De Vos, 2008):

- 1) Service concept: a description of the value proposition (added value of a service offering) and the market segment at which the offering is aimed;
- 2) Technological architecture: a description of the technical functionality required to realize the service offering;
- 3) Organizational arrangements: a description of the structure of the multi-actor value network required to create and distribute the service offering and to describe the focal firm's position within the value network;
- 4) Financial arrangements: a description of the way a value network intends to generate revenues from a particular service offering and of the way risks, investments and revenues are divided among the various actors in a value network.



**Figure 3 - Four common components of business model (Bouwman et al., 2008)**

In today's digital landscape, business models need to be designed dynamic, more flexible value networks will arise and replace the traditional, static and linear value chains (Miller & Lessard, 2000).



**Figure 4 - Dynamic design of business model (Miller & Lessard, 2000)**

**Second stream** focuses on business model dynamics and explains how businesses use the Internet to interact and how value is created for customers and other stakeholders (Applegate, 2001). For example, Weill & Vitale (2001) defines eight finite e-business models (direct customer, full-service provider, intermediary, whole of enterprise, shared infrastructure, virtual community, value net integrator, and content provider) based on a systematic and practical analysis of several case studies. They show how each model works in practice, including how it makes money and the core competencies and critical factors required.

In this study, our aim is to contribute on this second stream by uncovering and explaining business model dynamics in both e-learning and online gaming (especially, fantasy league) context. Following Chapter focuses on analysis and findings of business models in these contexts. First, subsection 3.1 reveals the core challenges in Finnish e-learning service industry, describes market situation among the virtual learning environments in Finland and reviews various e-learning business models. Second, subsection 3.2 reveals the main findings of fantasy league business model research.

# 3 Analysis and findings

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## 3.1 E-learning services

In order to understand occurring challenges of e-learning industry in Finnish context, we interviewed 4 experts from e-learning industry. The interviewees were accordingly asked to specify the key challenges of their current and potential e-learning business models. The choice of informants was based on the principle that information is best elicited from people who have knowledge of the phenomenon and who have been involved with developing e-reading business (Arksey & Knight, 1999).

The central challenges on each business model domain are described in Figure 5. Of these challenges, this study focuses on learning platform possibilities for e-learning services and pricing of e-learning services, which were highlighted as one of the biggest challenges in the industry.

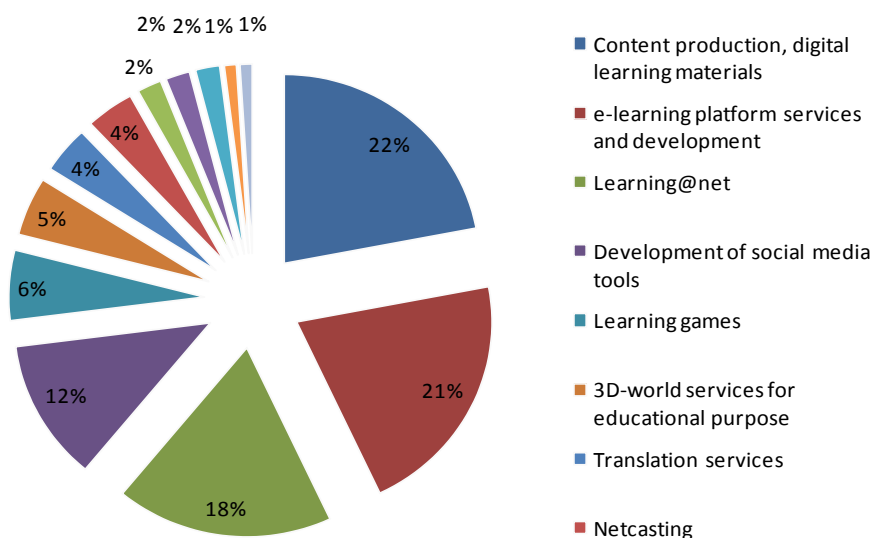
Service domain	How to bundle off-line and on-line content effectively?
Technology domain	How the accessibility (for teachers) could be improved? What are the learning service platform possibilities for e-learning services?
Organizational domain	What are the political government level decisions of e-learning in <i>Finland</i> ?
Financial domain	How e-learning services should be priced?

**Figure 5 - Challenges of Finnish e-learning industry**

### 3.1.1 Market situation among the virtual learning environments

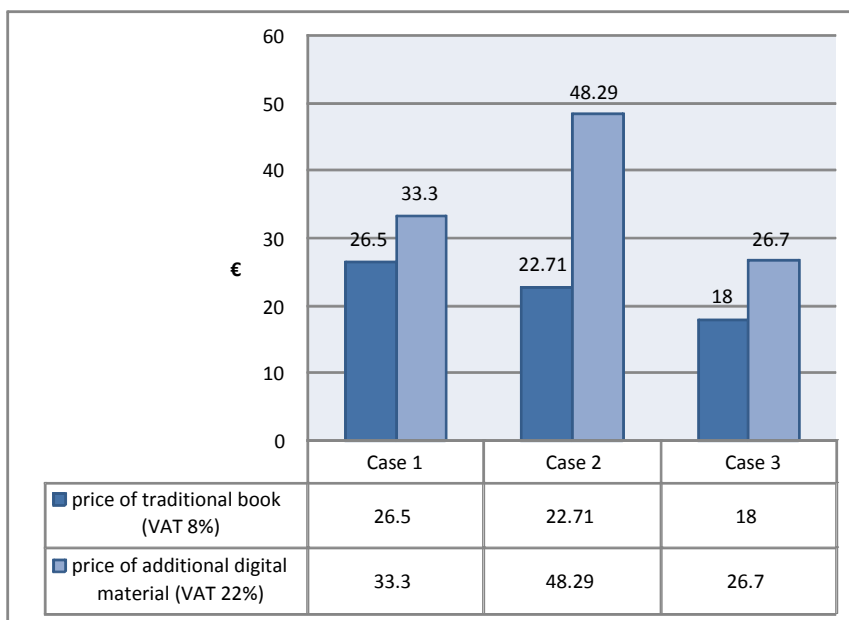
The first research question for this project was: What is the current market situation among the virtual learning environments available in Finland? To answer this question we gathered data from supplementary data from open sources on the internet. According to Hintikka & Rongas (2010) 150 e-learning firms are existing in Finland (77% of firms are less than 10 person micro companies). In 2008, these overall revenues were about 248 million € (59%

comes from the fifth largest content publishing companies in Finland) (Hintikka & Rongas, 2010). As Figure 6 shows, revenues from electronic content were 22% of total e-learning revenues (54 million €) and revenues from platforms were 21% (roughly 52 million €).



**Figure 6 - E-learning markets in Finland**

For pricing analyses of e-learning services, we gathered price information from 3 Finnish book publishing companies, which provide e-learning material for schools. As seen in Figure 7, currently, prices of additional e-learning material are higher than traditional educational book prices in Finland. It seems that higher value added tax in digital services is affecting the overall price-level of e-learning products. Additional e-learning material prices were an average of 160 percent higher than traditional book prices in 2010. In our study, the price for e-learning content varies between 5 (PDF replica of traditionally provided extra material) and 54,50 euro (extra material includes audio and video and are compatible with whiteboard) .



**Figure 7 - Traditional book vs. additional digital e-learning content price comparison**

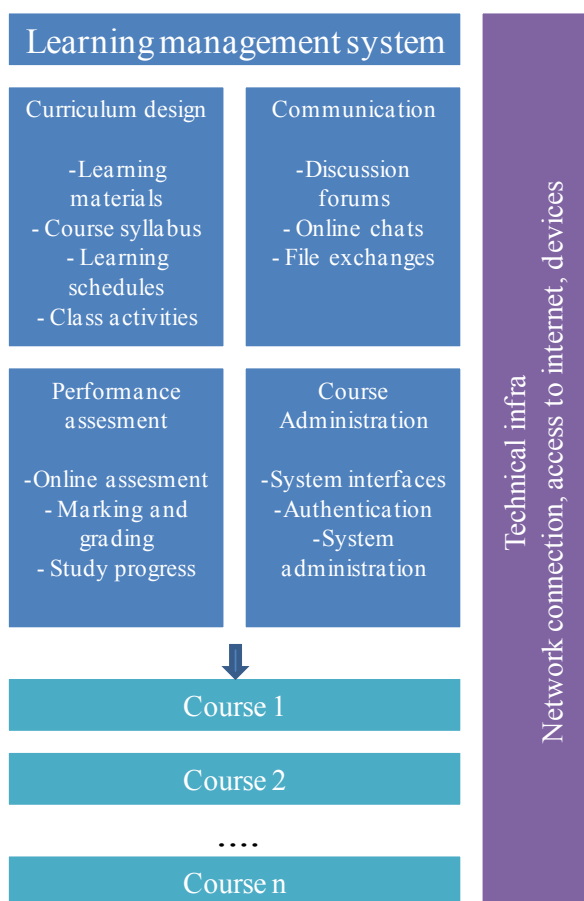
### 3.1.2 E-learning business models

The second research question was: What are the most relevant business models for combining the printed and digital materials to the various types of services in learning solutions aiming at productization? To answer this question, we thoroughly examined earlier literature of e-learning business models.

In e-learning literature, e-learning is defined many ways (Nichols, 2003). The term e-learning is often used interchangeably with distance education or distance learning (Holsapple & Lee-Post, 2006). In this study, e-learning is defined as learning that is supported and/or made possible by the use of Information Communication Technology (ICT) (Hoppe & Breitner, 2003). For organization that invests on e-learning, these services have to address economical, pedagogical and technological goals. To enable pedagogical and technological quality, different theories and models for e-learning already exist. However, there is a definite scarcity of theories and business models ensuring economical viability in terms of marketable and sustainable products (Hoppe & Breitner, 2003).

Typically, an e-learning environment comprises three basic components (see Figure 8). First, there should be a learning management system which provides administrative functions for curriculum design, course content management, communication, discussion and assessment. Second, there should be a

rich set of e-courses, in which information technologies are effectively used in content and instruction design. Third, a technical infrastructure should be in place to support the learning management system and e-courses. (Cheung, Lam, Im and Szeto, 2009). According to Cheung et al. (2009) a learning management system generally offers four areas of functions, namely, curriculum design, communication and discussion, performance assessment and course administration. Curriculum design refers to the delivery of learning materials and the design of syllabus, study schedule and class activities. Communication and discussion allows online discussion, chats, electronic mails and message exchanges and submission of assignments. Performance assessment refers to the assessment and grading of assignments and tests and the tracking of study progress. Course administration refers to course and student data and system administration.



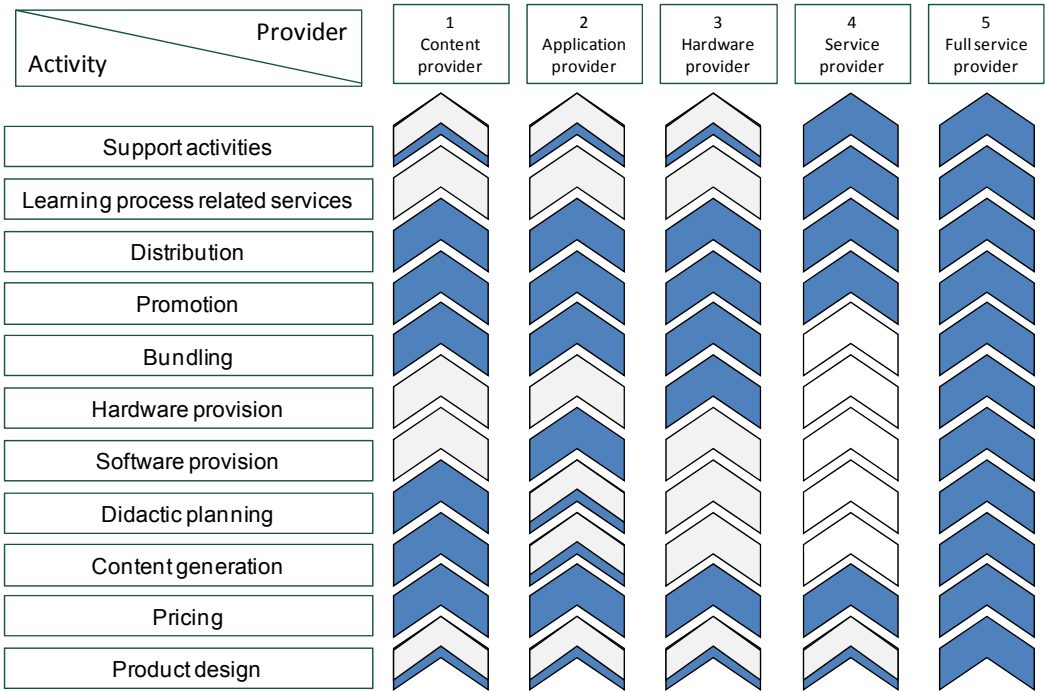
**Figure 8 - E-learning environment (Adapted from: (Cheung et al., 2009)**

To develop insight into the way organizations can design ‘balanced’ business models, designers need to understand the design issues in business models and their interdependencies (Haaker, Faber and Bouwman, 2006). One major factor that impacts on the choice of e-learning business model is the company’s current and/or wanted position in the digital ecosystem. As seen in Figure 9, based on key informant interviews and literature review, these roles can be divided into 5 segments in e-learning context (Adapted from: Hoppe & Breitner, 2003). *Content provider* offers predetermined content for one or multiple service platforms. For example, Otava publishes additional digital material, such as selections of powerpoint slides, for traditional educational books. *Application provider*, offers the application solution for the content provider and in many cases co-operates with content provider(s). *Hardware provider* offers hardware for digital content. For example, Apple has recently released new multi-purpose device iPad and offers it as a technological platform for all digital services. *Service platform provider* offers the learning management system, which complement the mediation of digital content by applications. *Full service provider* offers bundled all-in-one e-learning solutions and manages the whole e-learning environment.

**Table 1 - The supplier roles in e-learning business (Adapted from: Hoppe & Breitner, 2003)**

	Content provider	Application provider	Hardware provider	Service platform provider	Full service provider
Examples	Otava, Tammi	Gateway Multimedia	Sony, Apple, Nokia, Asus	Moodle, Blackboard	
Offer	Offers end-users certain e-learning content, direct value to end-users for usage/possession of the content	Offers applications for end-users to use e-learning content and tools for content providers to design e-learning content	Offers hardware for digital content, not learning specific in most of the cases	Offers digital service platform, which complement the mediation of digital content by applications	Offers all-in one solutions, comprises products and services in relation with the whole e-learning system
Revenue model	Revenues from digital replica, additional e-reading content and bundled (traditional+digital) sales from buyers (municipalities, schools, companies)	Royalties of content sales/application re-sales, licence fees	Revenues gathered mainly from device sells to buyers (and content, application and service platform providers)	Various revenue models: annual recurring subscription-based licensing model (Blackboard), franchise /partnerships based open-source business model (Moodle), funding based business model (Sakai)	Revenues gathered from buyers mainly by license fees
Pricing	Additional content 160% higher than traditional content (books)	Various prices	Single purpose devices: 90-160€ Multi-purpose devices: 200-1300€	73.000€-294.000€	

The chosen role impacts to suppliers activities in e-learning value chain (See Figure 9). For example full service provider is responsible for all functions from product design to support activities, while content provider is handling alone only content distribution, promotion, bundling, didactic planning, generation and pricing.

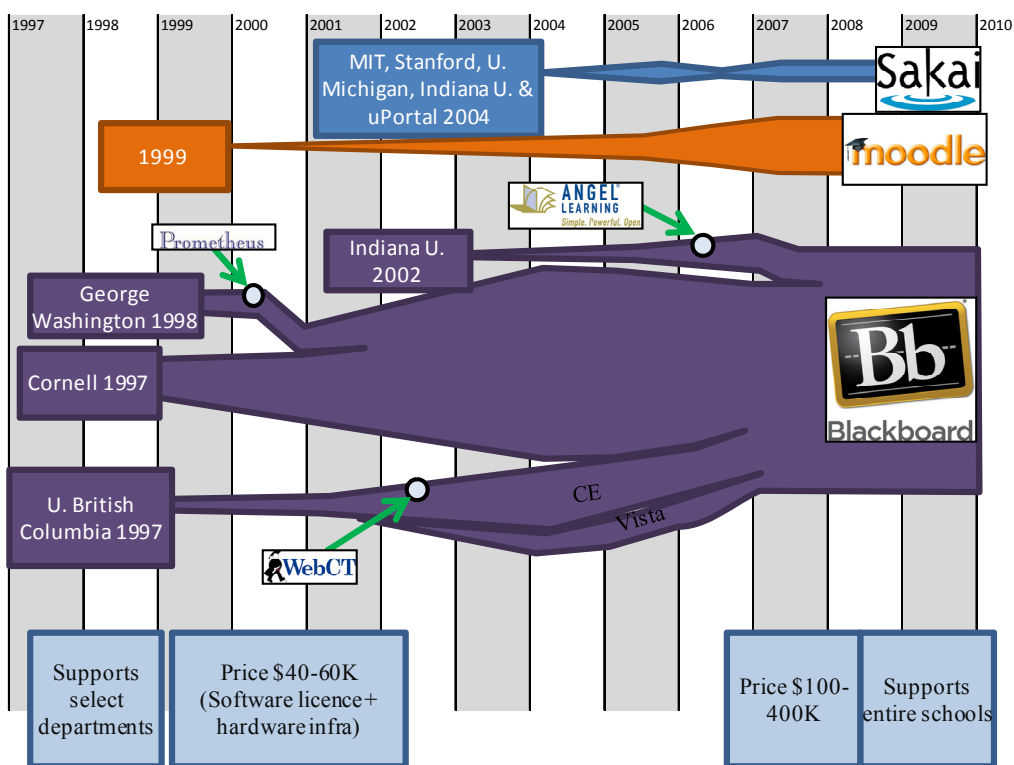


**Figure 9 – E-learning supplier activity models based on e-learning value chain (Adapted from: Hoppe & Breitner, 2003)**

In the past two decades, as the concepts of e-learning evolved, a number of service platform providers have become available in market. In this study we will focus on 3 case studies of service platform business models, namely Blackboard, Sakai and Moodle.

Today, learning management systems (LMS) have become an integral component of the education systems in most universities and interest in hybrid approaches that blend inclass and online activities have increased (Means et al., 2009). For example, in the U.S. 91% approximately 4800 universities have installed LMS. As can be observed from Figure 10, first LMS products have been created in late 1990s and have been rapidly growing after that. Blackboard, despite having the biggest share among the market player acquired Prometheus in 2001, WebCT in February 2006 and Angel Learning in May 2009, dominates the LMS market. Currently there are over 5700 Blackboard clients in 65 countries. Majority of these clients are universities: Blackboard

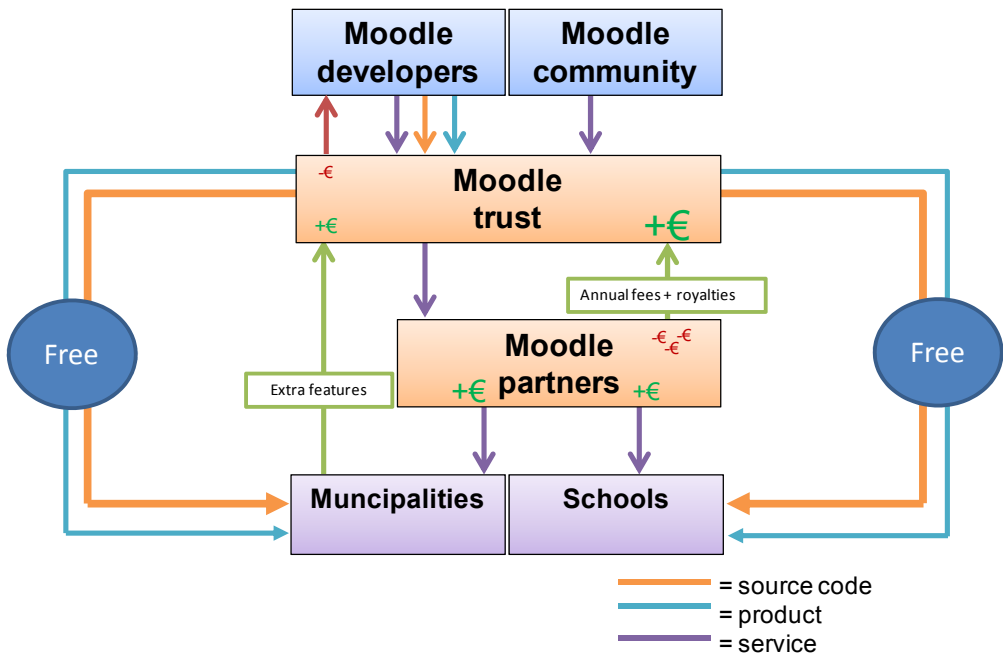
has around 80% share among US universities and over 50% among all the universities around the world (Pihsva, Nishantha and Dang, 2010). Revenue logic of Blackboard is based on an annual recurring subscription-based licensing model. This means that learning community pays license fee annually for Blackboard, which is based on the size of the community. In addition to learning management system platform, Blackboard offers also content for the platform called e-Packs, which are publisher-created (e.g. McGraw-Hill) digital learning materials that are ready to use in the Blackboard. Price depends on amount of features from 23€ to 61€ per platform user. Blackboard focuses especially on up-selling and cross-selling existing clients: Based on their historic sources of revenue, 75% of total revenue is gained from renewals (In contrast, 15% new clients and 10% of services).



**Figure 10 – LMS market timeline: Sakai Moodle and Blackboard (Adapted from Delta Initiative, 2009)**

As an open-source project, Moodle provides free educational software platforms for schools. The core of Moodle is maintained by moodle.com (Moodle trust). Members of the Trust are helped by a lot of feedback from volunteer

users, testers and developers from around the world (Moodle community & developers). Currently, there are 49597 registered Moodle-sites in 210 countries and 3.7 million courses are held by 1.1 million teachers through these sites. From perspective of Moodle trust, their open-source business model is based on franchise /partnerships (See Figure 11). Commercial firms that offer customized versions of Moodle for schools need to acquire official Moodle Partner status. This status is paid through royalties and annual fees. Moodle partners charges schools of various services, such as customized versions of Moodle's grade books, repositories of learning resources, warehouses for student data, and tools for real-time learning activities. These partners also host Moodle systems for schools (e.g. Company called Moodlerooms charges for an annual fee of 0.77€ per user of its hosting services).



**Figure 11 - Moodle open-source business model**

Sakai is another collaborative open-source project that provides free educational platforms for schools. Today, Sakai project is smaller than Moodle as 350 learning communities world-wide use it as a learning platform. Sakai project has funding based business model. Since 2004, the project has received at least 1.7 million euro initial grant from Mellon Foundation and Hewlett Foundation and 3.4 million euro from other core partners. After funding the project, altogether 7 core partners have been approved as Sakai Commercial Affiliates and may provide commercialized versions of Sakai for learning

communities. The next subsection focuses on fantasy league business models.

## **3.2 Fantasy league business model analysis and findings**

Third research question for this study was: How should the (online gaming/fantasy league) service concepts be developed so that they are scalable to the international market? In order to uncover how fantasy league business models could be organized in different market settings, earlier academic literature on digital gaming business models and overall 6 online fantasy leagues were examined. Data regarding the competitor fantasy leagues and their business models was mainly gathered by observing and participation in the selected leagues, and supplemented with data from other open sources on the internet. To gain a more comprehensive picture of the functionality and user amounts of the leagues, the participation fee was paid to gain access to three of the fantasy leagues – The Sun £1 Million Dream Team, Sport.co.uk Fantasy League and the Bild Super Manager. This section summarizes the main findings of this study. More detailed analysis and results are presented in the master's thesis of Hautanen (2010).

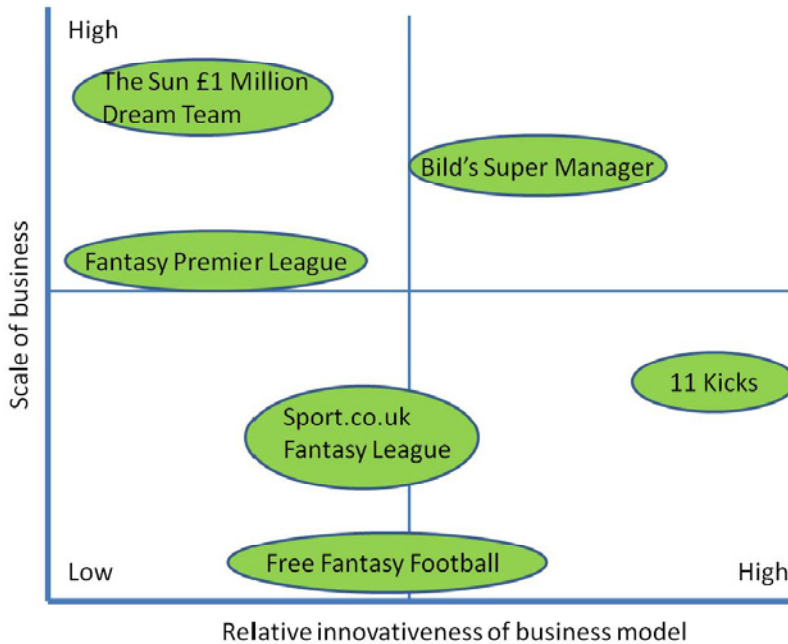
### *3.2.1 Digital gaming business models*

Online games are a form of digital gaming whose popularity is very much tied to the development of internet technology and e-commerce. Although digital games played on computers, gaming consoles or mobile devices account today for most of the software product sales, the online-gaming revenues are growing fast (Cusumano, 2008). Many digital games allow the player to compete against other players in a multiplayer mode besides the stand-alone gameplay mode (Sharp & Rowe, 2006). These multiplayer games are often run either on a dedicated server owned by a third party or then one the players' devices acts a server for the others to connect. Typically these games allow a limited number of players and the playing sessions last from minutes to hours. Playing is free and the revenues to the server owner come from online advertisements or premium memberships (Sharp & Rowe, 2006; McGrath, 2010). Another common and quite distinct form of online games is massively multiplayer games (MMO), which run indefinitely on hundreds of dedicated servers with thousands of players roaming the realm of the game simultaneously. (Sharp & Rowe, 2006). Many MMO's are based on regular subscriptions (Sharp & Rowe, 2006) although other options, such as freemium based models have been applied.

It appears that these types of games have largely been able to maintain their delivery model (Cusumano, 2008), as a local client installation is still sold to the consumer either through a physical medium or through digital distribution channels, while expanding their revenue models beyond the up-front sale of

the license fee. Valve Corporation's service platform Steam1 serves as a prime example of the current trend and a practical application of the four value drivers presented by Amit and Zott (2001) as it allows the users to purchase games online and download them directly to their devices for playing either alone or online with other players. Value is created through this service by giving the customers an efficient way to access the offerings of Valve and its partners often complemented by free offerings (such as game expansions and updates), providing a database of statistics and achievements for the games a customer owns, and a rich user community for playing online. Besides the creation of value, the mechanisms such as keeping the essential customer and player data on their servers and verifying the authenticity of the game when starting to play Valve also ensures that part of that value is also captured and turned to profit. This shift to delivering a comprehensive value offering to customers has meant quite a leap to Valve which was formerly known mainly as a game developing company. However, the future applications of Web 2.0 and cloud technologies are yet to show where the industry might be heading as they could eliminate the necessity for the user to physically have any data on their personal computers (McGrath, 2010). Majority of fantasy leagues have, in this sense, already taken a step further as they are run entirely on web, with all the game-related information being stored by the organizer of the game.

Based on the comparison of the fantasy leagues' business models some observations can be made of the likely strategic aspirations that the parties organizing the leagues have and how this is reflected in the business models, given their contexts. Seemingly the business models can be roughly grouped based on two dimensions, which are the relative emphasis that the leagues place either on the advantages deriving from the scale of business or on the level of innovativeness they incorporate in their business models in relation to the other leagues. The benefits of scale are basically the result of the combination of substantial resources and capabilities of the partnership network that enable a superior value proposition. The innovativeness, on the other hand, stems from the original design of or approach to some of the business models' elements. This division is illustrated in Figure 13.



**Figure 12 - The focus of the fantasy leagues**

There appears to be a substantial amount of fantasy leagues on the market concentrating on the English Premier League, some of which mainly target the British fans of the league. Altogether, five of the examined leagues include the Premier League in their offering. Considering the popularity of the league and the breadth of the available fantasy versions of it, each of these five leagues has their own ways to differentiate and establish their position on the market.

In the light of its strategic objectives – to increase the loyalty of the Sun’s audience and generate income to those involved in its partnership network - The Sun £1 Million Dream Team seems to have the advantage of scale on its side. Whereas its value proposition is otherwise far from novel, it is distinguished from its competitors by the league’s sheer size. Being backed by the Sun, which apparently has the highest readership of Britain’s newspapers, and the betting company William Hill enable Dream Team to have high visibility and significant prizes.

Sport.co.uk Fantasy League has largely similar goals as the Sun £1 Million Dream Team. Seemingly targeting the same customer segment but operating on a different scale, it could be differentiating itself through the variation it brings to the competition structure, i.e. running several parallel sub leagues to the main Premier League season, some of which correspond to the actual leagues that Premier League teams participate. The relatively complex com-

petition structure with its many phases adds to the fantasy league's quasi-realism, which some users might find appealing in exchange for the comparatively high participation fees. However, the number of teams registered for Sport.co.uk Fantasy League is but a fraction compared to the Sun £1 Million Dream Team, and the betting company William Hill enable Dream Team to have high visibility and significant prizes.

Fantasy Premier League is a slightly more complex example when contemplating it as a business case. Being free to its users, the fantasy league generates very little direct income, with the main benefits stemming from the users' involvement with the wider Premier League offering, which might eventually, through the increased loyalty to the league, lead also to higher revenues to Premier League. Functionally offering very little different than its competitors, it seems that mainly the strength of the brand is enough to attract over 2 200 000 users.

Considering the scale of the examined fantasy leagues, Free Fantasy Football ranks by far the lowest. Its strength is the extent of the available leagues, based on which the users can freely assemble their teams.

Whereas these four leagues primarily target a highly competed market on somewhat conventional terms, with the most successful fantasy leagues also being the largest, both 11 Kicks and Bild's Super Manager incorporate more novelty to their approaches, by targeting previously less catered markets and / or making a unique value proposition.

11 Kicks expands the view of the target customer from its competitors by making its offering available, besides English, in four other major European languages. Reinforcing this approach is the inclusion of La Liga to its repertoire of offered fantasy leagues, in addition to Premier League. Its major innovation, however, is its competition structure and gameplay elements that distinguish its value proposition from the others.

Bild's Super Manager then appears to be able to harness both the benefits of scale and innovation in its approach. Although much resembling the Sun and Sport.co.uk in its objectives and approach, Super Manager is mainly targeted to the German Bundesliga fans. This strategic decision is reflected also in the partnership network and the different aspects of the value proposition of the league. Differentiating itself by attending to a largely neglected market, Super Manager is likely able to defend its position as a sole provider of, if not fantasy leagues in general, at least Bundesliga through the benefits of scale - by pooling together the resources of a powerful media partner, the actual league and the sponsors.

## 4 Conclusions

Juho-Petteri Huhtala, Jaakko Hautanen, Jari Salo & Seppo Leminen

This study has been motivated by a need to examine the business model possibilities in both e-learning and fantasy online gaming. Based on earlier business model literature and by interviewing overall 10 managers, directors and other key decision makers from learning and gaming industry it was possible to examine what kind of business models companies in these two industries may adapt in the future.

Three key findings emerged from our e-learning business model research:

- 1) Virtual environment market in Finland is at emerging stage and very fragmented

Roughly 150 e-learning firms are currently existing in the Finnish e-learning markets, which gathered 248 million € revenues in 2009 (Hintikka & Rongas, 2010). These companies provide various kinds of e-learning services from content production to e-learning game simulations. Pricing policies of e-learning content production are very similar in Finnish context: When comparing products from three case companies, additional e-learning material prices were an average of 160 percent higher than traditional book prices in 2010. However, there are differences in base level prices of content production companies: It appears that price range for e-learning content should be set to between 26 and 48 euro.

- 2) The strategic role of e-learning supplier has a strong impact on business model design in digital industry

Before adapting any specific e-business model and/or designing activities in e-learning value chain, company must choose which supplier role they want to take in digital industry. From interviews and earlier academic literature 5 different roles were uncovered. These are *content provider*, *application provider*, *hardware provider*, *service platform provider* and *full service provider*. Offer, revenue model and pricing options of these roles are presented in detail in Table 1.

- 3) E-learning industry is a business model playground with plenty of options

In this part of the study we focused 3 studies of service platform business models Blackboard Sakai and Moodle. Results of these business studies

revealed 3 different business models for service platform providers, which are *subscription-based licensing model*, *funding based open-source business model* and *franchise/partnerships based open-source business model*. When comparing the success of these models in the U.S markets, the timeline from 13 years (1997-2010) shows that many smaller subscription based business models are emerged into a one large service platform provider (Blackboard). Simultaneously, the market size of open-source business model based platform providers (Sakai and Moodle) has remained relatively small.

As our research of fantasy league business models shows, it appears that generally any fantasy league's value proposition to its customers includes the enhancement of a sports spectatorship experience. The value thus comes from the increased chance to succeed in the fantasy league by exploiting the knowledge about a particular sport or a league. There seem to be certain elementary mechanisms behind the creation and delivery of this value common to all the fantasy leagues examined, such as the fantasy teams' ranking being based on the points awarded to the actual players for their performance - a feature that links the fantasy league activity directly with the real world events and appears to generally define any fantasy league (Shipman, 2001). The value is then the outcome of various activities that take place in the partnership network of the fantasy league and is, due to the services' online nature, delivered to the customers using solely electronic channels.

The differences in the fantasy league' business models derive from the various approaches in structuring the partnership network and eventually from the offerings that form the leagues' individual value propositions to the target customers. Albeit sharing some basic offerings, activities and resources, there are more or less differences between the leagues relating to these business model aspects. For example, the composition of the offerings varies to a considerable extent, which shows in the available leagues, usage of the actual league intellectual property, offered languages, the overall fantasy league structure and prizes. The variations in the value propositions reflect, for one, the different characteristics of the target customers, the relationships sought with them and also the different compositions of the partnership networks that, through the resources and activities brought in by the various constituents enable the value proposition. The reasons behind these differences seemingly originate from the strategic objectives of some key constituent in the partnership network which define the rationale behind the leagues' existence and which are apparently affected by the overall market context that the leagues operate in. The identified goals include mainly building and strengthening of relationships between the constituents and the desired target customers, and also financial gain either directly from the user participation or indirectly through complementary offerings.

In some of the examined leagues' cases those desired customers may form relatively tight boundaries to what elementary offerings a value proposition could reasonably consist of, such as the sports league most likely followed by the potential audience of a particular media and the language that the audience mainly speaks, thus effectively limiting the size of the target market. As there might be several other leagues motivated by coincident goals and thus targeting the same customers with similar elementary offerings, the fantasy leagues confined to a heavily competed market can seemingly differentiate roughly through two routes. It appears that the access to resources provided by the partnership network brings one way to compete effectively in a crowded market situation by granting the league the comparative advantage of scale which allows the fantasy league to differentiate, for example with its prizes or the actual league brand, while maintaining otherwise a relatively standard value proposition compared to the other leagues in the market. If such an advantage cannot be achieved, another way to cope and differentiate in such market conditions, and perhaps cater the needs of smaller market niche would be through another part of the offering, like the novel gameplay elements. In a less competed market environment a relatively standard value proposition made to an un-serviced target segment could by itself be novel enough to sustain the fantasy league service. It seems that in such a situation, harnessing the resources of the partnership network could create barriers to market entry and subsequently reinforce the league's position as the exclusive provider in a specific market, especially if there is little room for competing leagues in that market.

However, whereas the objectives of an essential constituent (such as a media) may largely dictate the basic principles of a fantasy league's business model, i.e. what to offer and to whom, and generally tie it to a specific market setting, those leagues with no such constraints may find it justifiable to expand the notion of the target customer and thus exploit wider market opportunities more dynamically by offering, for example, a broader selection of leagues to several language areas. Rather easily imitable as those aspects of the value proposition are, incorporating distinct gameplay mechanics may not be and could thus strengthen.

## **Future research**

In terms of further research in e-learning context, three recommendations are given:

- 1) Benchmarking business models of other possible supplier roles is crucial

For example, it would be interesting to research business models of content providers in the U.S., where three service platform companies of this study have strong market positions and study the relation between content providers and service providers.

- 2) Attitudes of municipalities in Finland towards digitization of the learning content would be interesting to uncover

Municipalities have strong role in the Finnish school-system, their role and attitudes towards digitization of the learning content would be interesting area for further research.

- 3) Study on internationalization of other media services are also needed

This study focused on scalability of fantasy league business model. In the future studies it would be interesting to seek out what are applicable business models for internationalization of media services, such as e-learning.

If online fantasy gaming business models are researched further in the future, it could be worthwhile to see how fantasy leagues function in markets excluded from this study. For example, there is a long tradition in fantasy leagues in the United States market that could offer a very different setting in terms of the followed sports, the variety in the complexity and depth of the fantasy leagues gameplay aspects, and the overall magnitude of the business which could, in turn, require quite a different approach to designing a successful business model.

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This research examines alternative e-business models for both learning and online fantasy gaming industry. Based on a literature review of business models, two complimentary streams of virtual environment business model research are described for the reader. Research in the first stream aims to define the components of an e-business model, while research in the second stream focuses on business model dynamics and tries to explain how various businesses use the Internet to interact and how value is created for customers and other stakeholders. As this study aims to uncover and explain business model dynamics in both learning and online fantasy gaming industry context, it is contributing on the second stream. For assessing various business model options, we gathered data by interviewing overall 10 managers, directors and other key decision makers from learning and online fantasy gaming industry. We also gathered supplementary data from various open sources on the internet.

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