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**IN-SERVICE PROMOTION AS A BUSINESS MODEL FOR SOCIAL WEB  
APPLICATIONS**

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**Abstract**

Most social web applications are funded by advertising. This business model conflicts with the increasing number of ad blocking techniques to remove unwanted advertisements. Yet, research shows that advertisements add value to computer games, when the advertisements are presented inside the game environment. An in-service promotion business model is presented in this paper. In in-service promotion advertising can be used in web applications as it is used in the gaming industry: to provide additional value to consumers. This requires more devotion from advertisers as online advertising cannot be seen only as a passive one-way communication but as an active, value adding process. As payoff advertisers get interaction with consumers and reduce the risk to be ad blocked.

Key Words: business model, social web application, value creation, product placement, in-service promotion

Topic Groups: Business strategy, Entrepreneurship

**INTRODUCTION**

Internet has changed the way of doing business (Wirtz et al. 2010). People are spending more and more time online and companies are also fortifying their online presence. For business, this means a need to create working online business models. One of the business models in the web has been advertising. However, the click-through rate of advertisements has decreased over 90% since the 90's (Drèze & Hussherr 2003) which has led to a discussion whether the advertisement business is feasible.

The advertisement-based business model of Facebook has been successful (Facebook 2012). Yet, General Motors (GM) announced in May 2012 that it will stop advertising in Facebook (Vega 2012). When combined with the success of ad blocking tools, this raises the question whether there could be alternative ways to fund online services.

Although GM decided to drop their advertising in Facebook, they continue to have their own

Facebook page, which Facebook does not charge for (Vega 2012). Many businesses use Facebook in a similar way to get direct feedback from their customers and also to answer their questions. They promote their brand in the web without payment and even produce additional value to their customers by answering their questions. In other words Facebook provides advertisers a way to promote their products, but take no charge for it.

Current online business models are mostly based on advertising and therefore ad blocking tools crimp this concept. On the other hand, advertisements in games are seen as value adding as games are considered more realistic with ads (Nelson et al. 2004). This leads to our research question: *can in-game advertising model be modified as an online business model and how should this business model be described?*

## **RELATED RESEARCH**

### **Web and Its Social Aspects**

A web application is an information system providing access to complex data and interactive services from the Internet with a web browser (Van de Weerd et al. 2006; Alalfi et al. 2009). At present, more and more web applications include social features and the web is not as simple as it was 15 years ago when one was unable to comment on news items, share them in social media or emboss game achievements in online profiles. This change has been described as the shift from Web 1.0 to Web 2.0. The latter is neither a model nor a technique, but a concept to gather new practices in the design of web applications, marketing and also in strategy. The central building blocks of Web 2.0 are, for example, a sense of community, collectivism and the implementation of desktop software in a web-platform (Oreilly 2007).

A web application can be social or non-social. An example of the latter is a travel planning application for enterprise's employees meant to manage each individual's traveling bills without interaction between each other. In a social web application (SWA) users can interact with each other inside the application. For example, applications inside Facebook or news pages that have commenting possibilities can be counted as social web applications. A social web application is closely related to an online community which consists of a purpose defining the community's existence, a technological platform, people and content (Preece 2000; Arrasvuori et al. 2008).

### **Business Models**

The term "business model" became an ugly word during the dot-com bubble when companies were started up just because the founders had "a superior business model" and investors invested money in it (Henfridsson et al. 2001). Although the bubble burst, business models should not be ignored (Osterwalder & Pigneur 2002; Teece 2010). There has been discussion on business models in the web for some time (Teece 2010; Lai et al. 2006; Pereira & Fife 2000; Wirtz et al. 2010), but most of the scientific research has been carried out during the last decade - after the dot-com bubble (Lai et al. 2006; Wirtz et al. 2010).

There are many definitions for a business model depending on the researcher's point of view. Shafer et al. (2005), Hamel (2000) and Johnson et al. (2008) have examined different definitions and ended up with four major similarities: 1) strategic choices for value proposition, 2) strategic resources for value creation, 3) profit formulation, and 4) value network. Strategic choices for value proposition include the overall strategy of the firm, strategic resources for value creation specify the resources and processes needed, profit formulation represents the cost and profit structure, and value network introduces the information aspect and partners. Casadesus-Masanell and Ricart (2010) discuss that a business model is made of two different sets of elements: the management choices concerning

the firm's operations (e.g. policy, assets and governance), and the consequences of the choices made.

To summarize, a business model reflects the operational and output systems of the company and captures the way the firm functions and creates and delivers value to customers and converts received payments to profit (Wirtz et al. 2010; Teece 2010; Osterwalder & Pigneur 2002; Casadesus-Masanell & Ricart 2010). The meaning of a business model is basically to define who is offering what to whom and what is expected in return. Therefore, with business models it is possible to get information on how the cash flow is aimed to cycle. Business models are emphasized as *the first step* in requirements engineering for e-business information systems, and without a well-developed business model innovators will fail either to deliver or to capture value from their innovations (Gordijn et al. 2000; Teece 2010).

### **Web Business Models**

In the web, business models differ from traditional business models as users have come to expect the basic use of the service to be free of charge (Teece 2010). This has led business model designers to develop business models where users are not required to purchase anything or to pay monthly fees. Teece (2010) continues with the fundamental questions about how companies deliver value to the customer and how they can capture value from delivering new information services that users expect to receive free of charge. A technological innovation does not guarantee business success, but new product development efforts should be coupled with a business model defining their value capturing strategy - if a company cannot adapt to this, the business can be jeopardized (Teece 2010; Wirtz et al. 2010).

Studies provide lists of business models suitable for the web. Essler and Whitaker (2001) have made a compilation from prior research and given an overview of what kind of business models were used in the late 90's. McGrath (2010) provided a list of "free" business models and observed how it is possible to base a business model on a service which is free of charge.

Examples of business models used in the web include a) subscription, b) advertisement funding, c) donation, d) selling virtual goods, and e) freemium. The Internet started as a free platform and, therefore, the majority of the content and services are free of charge and most web sites and applications have ads on them (e.g. Facebook<sup>1</sup>). Some services are funded by donations and they are free of advertisement (e.g. Wikipedia<sup>2</sup>). Some services are free to use, but they sell virtual goods like furnitures in virtual worlds (e.g. Habbo Hotel<sup>3</sup>). A freemium model combines free or advertising based free service with a chargeable premium service (McGrath 2010).

### **In-game Advertising and Product Placement**

The web provides a versatile platform for advertising. Whereas, for instance, traditional commercial radio advertisement cannot be directed to a specific listener, there are plenty of ways to identify web users and target them with more relevant advertising. McDonald and Cranor (2010) studied how American Internet users felt towards advertising on the web. Their main conclusion was that Internet users were willing to "see" advertisement when they felt that it helped the free online content. On the other hand, they noticed that Internet users do not realize that their data is being used in ad business exchange, nor do they consider it as a threat.

In gaming, Yang et al. (2006) have discussed the similar aspects between in-game advertising and brand placement in television programs and brought up that brand placement in television is typically linked to actors and other celebrities, while video games mostly present athletes.

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<sup>1</sup> [www.facebook.com](http://www.facebook.com)

<sup>2</sup> [www.wikipedia.org](http://www.wikipedia.org)

<sup>3</sup> [www.habbo.com](http://www.habbo.com)

Nelson et al. (2004) surveyed computer game players' attitudes towards advertisements and product placement in games and found out that players see brands in a positive light when they add realism to the game.

Research has also shown that online gamers are more approving towards advertisement than non-gamers or non-Internet users (Youn et al. 2003). Nonetheless, if product placement is managed in an inappropriate way, the gamers knowingly reject it (Nelson et al. 2004). While playing computer games players can, for example, use a car mimicking a well-known brand (e.g. in *Gran Turismo* or *Need For Speed*) or clothe a game character with fashion industry brands (e.g. in *Tony Hawk Underground*) (Nelson et al. 2004). Advertising in games can be seen as a win-win-win situation, where game developers are provided with new revenue sources, marketers connect with gamers and the actual game players save money, because the sales income for the developers is not their only income, which in turn lowers the price of the game (Nelson et al. 2004).

### **From Advertisement Blocking to Value Creation**

Advertisements on a web page can be blocked automatically by software tools. Annoying advertisements has led to the development of advertisements blocking tools (Krammer 2008) and currently some form of an ad-block system exists on every major browser (e.g. AdBlock+<sup>4</sup>). Ad blocking tools are reported to have millions of users, but it still leaves the majority of Internet users exposed to ads while browsing the Internet.

One of the problems hindering banner ad effectiveness is called “banner blindness”, which means that web users have become used to advertisements and do not even look at the ads when searching for real content (Nielsen 2007; Drèze & Hussherr 2003). In addition to just not looking at the banners and focusing the attention primarily on other elements of the page, web surfers actually purposefully avoid looking at them (Nelson et al. 2004). If the ads are to be avoided, no revenues are gained by the advertiser who is aiming at getting clicks on ads which in turn leads to purchases or memberships on their web site (Drèze & Hussherr 2003). Thus, the ineffectiveness of ads also affects the click-through rate (CTR) which Cholette et al. (2011) define as the ratio of clicks to total impressions.

The actual reasons for blocking ads are many (Singh & Potdar 2009; Krammer 2008): some users are concerned about malware infection, which can be caught from a specially formed ad, for instance, a flash video trying to access users' files through a security vulnerability. Ad blocking helps to save bandwidth as less data is downloaded. It has also been discussed that ethical issues, like porn advertisements, lead to blocking ads (Singh & Potdar 2009). In addition, the surfers just may be too irritated by the popping ads, no matter whether the content is inappropriate or not.

But how to shift from advertisement blocking to actually seeking them and getting value from them? Value can be defined in many ways depending on the context and perspective. According to Amit and Zott (2001) value in e-business is the total value created from both the users', the firm's and other participants' point of view. In general, value is the trade-off between gained benefits and sacrifices made for them. Values can be categorized and studied from several perspectives depending on the context. On a more general level, for instance, Ulaga (2003) has gathered different benefit dimensions of relationship value from related research. This categorization consists of, for example, economic benefits, network benefits, efficiency benefits, social benefits and relationship benefits which represent value creation in a wider network. These benefit dimensions have respectively also their sacrifice dimensions. On the other hand, especially in e-business Amit and Zott (2001) have identified four wider themes which can also be used in building the value frame. This model encompasses novelty,

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<sup>4</sup> [adblockplus.org](http://adblockplus.org)

lock-in, complementaries and efficiency (NICE).

### Different User and Stakeholder Groups in Web Business

In traditional business, such as selling hamburgers, the customer is the person who wants to buy a burger and eat it. The purpose of a hamburger company is to sell hamburgers for profit. With Internet the case is not the same. For example, Facebook has millions of *users* that provide them very little income, but their main *customers* - advertisers - do spend money on Facebook. Similar case exists with the traditional commercial, but free, TV channels which get their income from advertising. They will serve their viewers, but gain no direct payment from them. In a free business model at least one substantial customer segment continuously benefits from a free-of-charge offer. For example, in Google's business model free content is provided for basic users but the revenues are charged from advertisers who, thus, support maintaining the business (Pynnönen et al. 2011).

Different customer groups create an ethical dilemma for the company providing free services considering how much weight the company can put on users' opinions and how much advertisers have a say in the business. Newspaper companies relying only on advertising seem to make headlines that require viewers to click them and, thus, generate a new page view and more ads to be seen.

It is also possible to have dual roles where a company has both advertisers and users as paying customers and contributors. Delivering some extra features for paying users is one potential business model. This freemium model is used by, for example, Spotify<sup>5</sup>. In addition to this, services can be built without advertisements at all. For example, Wikipedia (see footnote 2) has been built this way; it is funded by donations, as discussed earlier. It has users as its customers and then it has funders who might also be users, but as anyone can donate money, no actual use of Wikipedia is required.

### RESEARCH PROCESS

In this study the design science research method (DSRM) is used. DSRM (Peffer et al. 2007) consists of six activities, listed in table 1, and the aim is that the research produces an artifact that addresses the research problem. The artifact itself can be, for instance, a construct, a model, a method, or an instantiation (Peffer et al. 2007).

Table 1. Design science research method activities (Peffer et al. 2007)

Activity	Description	Activity in this study
1. Problem identification and motivation	Define the research problem. Knowledge of the state of the problem is required.	In-game advertisement was found to be value adding to the customers, but advertising in the Internet is not that successful and also ad-block tools exist.
2. Definition of the objectives for a solution	Create objectives for a solution from the basis of problem definition and knowledge.	The existing literature was mapped and based on that the need for online business model that reduces the risk of advertisement to be blocked was found.
3. Design and development	Create the artifact by designing a desired functionality, architecture and the actual artifact itself.	The in-service promotion business model is defined and described.
4. Demonstration	Demonstrate by, for example, a simulation, a case study, or experimentation how well the use of the artifact solves the problem. In this stage it is required to know how to actually use the artifact to solve the problem.	The use of in-service business model is demonstrated with case examples that outline the main features of the model.
5. Evaluation	Observe and evaluate how well the artifact actually solves the problem.	Evaluation is done with the cases and more is going to be carried out as more cases can be

<sup>5</sup> www.spotify.com

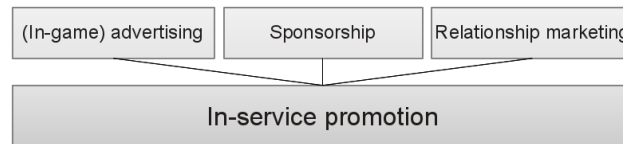
		identified.
6. Communication	Communicate the problem, the designed solution, and the artifact to the researchers and other audience.	Communication is carried out through this article as it is presented in scientific forum.

When the need for business model that creates value to customers with advertising was found and also the concept of in-game advertisement was discovered to be value adding, the following requirements for the new business model, design science (DS) artifact, were set: 1) advertisements provided by an advertiser need to be value adding, 2) ad-blocking should not cripple advertising and 3) advertising needs to generate value (income) to both the developer company and the advertiser company. With these requirements in mind we started to design the DS artifact: in-service promotion business model.

### IN-SERVICE PROMOTION

As we have learned, online business differs from business in a physical space. In the traditional business model, companies provide concrete products to consumers and, thus, receive income; in an online business model, companies only deliver *affordance* to the consumers hence generating profit (Essler & Whitaker 2001). In online business it is not expected to get direct income from the users, but to be able to get profit *by having* users. The whole field has transformed from a product-based (e.g. word processing software) to a service-based (e.g. photo album service) business (Cusumano 2008). From the basis of the theory, we can say that our concept of in-service promotion has elements from different marketing related concepts as introduced in Figure 1.

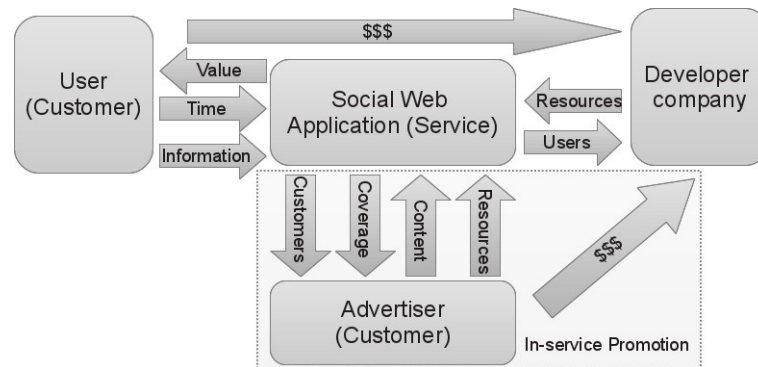
Figure 1: The relationship of in-service promotion, advertising, sponsorship and relationship marketing models.



Besides advertising, in-service promotion also contains elements of sponsorship. In addition to traditional supporting of individuals, events and activities, sponsorship can also be related to supporting a public place, a community, a web site, or any other target from which the sponsor seeks benefits for his own business by co-operation (Cornwell et al. 2005). Although promotion by its definition (Rowley 1998) includes the elements of direct marketing, sales promotion and personal selling, in this context we specifically emphasize relationship marketing as one essential dimension of in-service promotion because the interaction should be two-way including, for instance, social media and other attempts to manage and nurture the interaction between advertiser companies and (potential) consumers (Cornwell et al. 2005) but also the interaction among consumers. Depending on the case, in-service promotion also enables the advertiser company to use its employees to communicate with their customers.

In-service promotion combines the value adding part of in-game advertising to online advertising which can basically be done in two ways: 1) by making the advertising more integrated and value adding, or 2) by modifying the service to look like a game. In this paper the first one will be discussed while the second one is excluded. In Figure 2 in-service promotion business model is introduced from the basis of the user, developer and advertiser groups and value exchange flows between them. The model presents the overall ways how companies deliver value to users and advertisers and how the process generates profit.

Figure 2: Interaction between users, advertisers, developers and the actual service in in-service promotion business model.



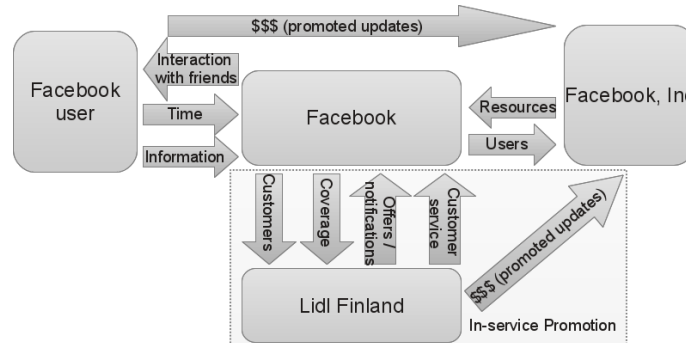
The model has four key parts: the actual service being used, its users, a developer company, and advertisers that want to strengthen their online presence by in-service promotion. Developers attain income from the advertiser and data about their users from the service itself. They might also get income directly from users, although it is not required. The purpose of the developer company is simply to develop the service. Users get value by using the service and they provide information and time to the service itself and they might become customers of the advertising company. The advertiser can do in-service promotion by paying the developer company to get a possibility to produce value adding content or to interact with the users of the service. It is also notable that communication between users and the developer company is becoming more direct and active, and users heavily impact on the service being developed (Essler & Whitaker 2001; Vanhala et al. 2011).

In-service promotion meets the previously set requirements by replacing “blinking advertisements” with content that is valuable to the user. This requires more from the advertiser company, but it also removes the possibility that the present ad-blocking tools could disable the content. In in-service promotion the developer company charge advertiser – as it is done in the traditional advertising business model – and advertiser company gets income by getting hands on new customers as the service enables encounter of user and advertiser and provide the possibility for customer relationship between these two. Concrete examples are described in the next section.

### Cases How to Use In-service Promotion

The concept of in-service promotion is not as easy-to-use as it first sounds. In game industry developers can embed advertising and brand promotion in game graphics and the process of ad removal is significantly harder than installing an ad block tool to a web browser. Thus, a shift from banner ads to in-service promotion is recommended.

Facebook provides us beneficial, real-life, examples of utilizing in-service promotion. Supermarket chain Lidl Finland uses Facebook to provide its customers information on upcoming events and offers. They also give their customers a possibility to comment anything related to Lidl and engage themselves in discussion with customers. Lidl Finland uses Facebook as a way to do in-service promotion with the ability to make direct contact with

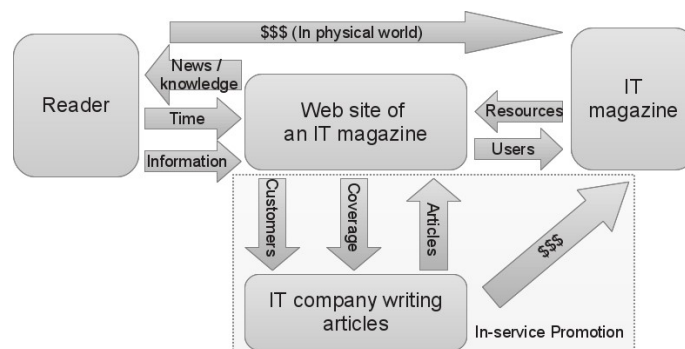


their customers. They are also required to spend time to create content and answer questions online, thus, they engage their employees to in-service promotion. Yet, Facebook has received no compensation for this. Their recent policy changes (Metzger 2012) are trying to modify the model to increase income to Facebook in this kind of situation. All this interaction is presented in figure 3.

Figure 3: How in-service promotion exists with Facebook and Lidl Finland.

Another example, already seen on news sites, is content from companies that are related to the stories written on the sites - so called content sponsoring (Krammer 2008). For example, Microsoft produces articles for web sites of IT magazines. This kind of content has a dual purpose: they create value for the readers and promote the company that creates the article. In the article they provide new knowledge for readers, so it is useful and increases the overall value reader gets from the magazine. They can introduce their own systems and services in the article to directly promote them to get more customers. The magazine gets payment from the company writing sponsored content. This interaction is presented in figure 4. The ethical issues (e.g. how to differentiate sponsored and non-sponsored content) are not discussed in this paper.

Figure 4: How in-service promotion exists with IT magazine and IT company writing content.



## DISCUSSION

The value achieved in the existing cases of in-service promotion is closely related to relationship benefits, social benefits, network benefits and efficiency benefits gathered by Ulaga (2003). For instance, in case of Lidl Finland employees are utilizing relationship



marketing in order to create virtual interaction with the customers. The employees get closer to the customer and the relationship can deepen even further when the employees' names and faces are also seen on the Facebook page. This creates trust and is further related to Amit and Zott's (2001) lock-in theme: customers are not eager to put time and effort on switching this relationship to another if they are satisfied with the current one (Gefen 2002; Shankar et al. 2003). On the other hand, Lidl Finland is an example of an e-business innovator that has an advantage in attracting customers and retaining them by supporting the relationship right from the beginning.

In addition, social benefits are seen in this relationship: customers who normally need encouragement in real face-to-face situation to approach firm's employees with questions, can find it easier to pose questions and get answers online. Cost and time saving benefits can also be gained when there is no need to try physically reach the assistants. In Amit and Zott's (2001) value model this would fall under the category of efficiency as the information is received fast and easily reducing the effort of actually searching for it.

Novelty theme can also be spotted in this way of doing business: value is created by increased interaction and communication with and among customers which can be seen as the actual basis for the whole value creation. Other value aspects, like the categorized benefit dimensions that have been discussed earlier, only act as supportive elements to the business idea that is continuously shaped by various changes. In-service promotion connects scattered people when new participants can join and contribute to the content. New links between users are created along with new incentives. In addition, complementarities as one benefit aspect are present in the form that activities are combined in one place which brings value in comparison to handling activities separately. Novelty is in many ways closely bundled with the other value themes presented by Amit and Zott (2001). Transactional benefits that are common in traditional business models, however, do not play a remarkable role in a social web application context which rather highlights softer values that are generated by co-creation and community characteristics.

When comparing in-service promotion to other previously mentioned online business models, we can identify several similarities and differences. Like donation, advertising and freemium, in-service promotion can offer the service for free to the users. Yet the annoyance of advertising is removed in comparison to advertising and freemium business models. In subscription and selling virtual goods business models users fund the service by paying directly to the developers. This is also possible in in-service promotion, but it is not required. Subscription and selling virtual goods models interact directly between developers and user, whereas other models include 3rd party. In donation users can donate, but it can also be someone else. In subscription every user is paying and the model require users to have capital. As other models do not take as direct income, they require larger user base. This is especially true with advertising and in-service promotion where advertisers want to get visibility among large number of users.

### **Potential cases how to use in-service promotion**

As one example, in a discussion forum a person could have an avatar always present on the side of the message posted. The default variety of avatars might consist of, for instance, game characters or mobile phones models and by paying – or by producing content – one could get the possibility to use his own avatar. With these avatars one could reflect his own opinions (e.g. favorite phone model or game character) and bring up his personality to other users, which can also strengthen the feel of community and lock-in to the forum. The sponsored avatar adds value to the discussion and also benefits the advertiser company.

In a social web application or a portal, for example, for travelers, the user expects to find

things that ease the traveling. People might want to know, for example, if a specific parking place is free. The portal could provide live statistics on the availability of the places. This way the car park could promote its existence to travelers – and locals too – and travelers could get additional value from this information without the need to make time-consuming searches (Amit & Zott 2001) and still not being able to find the information needed. And by getting a small fee from the parking house company, the developer company gets income.

### **Implications**

Although in-service promotion aims to provide better ways to promote third party services, products and places, it has its own problems. The service that relies on in-service promotion has to have a relatively wide and stable user base. Otherwise advertisers might not be interested. For example, Facebook has a high number of users but startups rarely have this advantage. Of course, the service itself has to stand out and have something valuable to spark interest among the potential users by somehow finding a way to lock them in it. The developer company has to do marketing by itself - or with advertiser companies. Advertiser companies need to actively produce value adding promotion or unbiased content that users feel valuable. One additional issue to be noted is that this type of brand promotion can also cause problems in global markets. As Nelson et al. (2004) pointed out, gamers felt disappointed when they could not get the advertised brands on local markets.

The next step in this study is the evaluation of the in-service promotion business model. In our project we are building a social web portal where we aim at providing information that users need and that advertisers can provide. For example, in the future, small shops and markets can update their information on our site, thus, promoting their presence and giving the users more useful information.

### **CONCLUSION**

In-service promotion online business model was described as a concept that could be used in discussion forums, online communities, and social web applications to finance their core business. Brands embedded in the service itself provide a way to obtain additional value from sponsor advertising and, thus, to eliminate the risks of ad blocking tools to remove all or some parts of the advertisements. The key is to turn advertising and wider promotion methods into a mechanism to create additional value also into online services as is the case in computer game industry where advertisements add value to game experience. Advertisers need to do more effort when producing content, but in return they get more intense contact with their potential customers.

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