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FREE MODELS INSPIRNING PRIVATE MODELS: AN APPLICATION IN ELECTRONIC MARKETPLACES

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Abstract

Electronic marketplaces have been struggling to find business models able to both (1) attract a high number of clients thereby enabling them to exceed their critical size and (2) create sufficient value to guarantee their viability and the satisfaction of their users. There operators are still hesitating between two strategies: the 'cost out' which is mainly based on the functionalities of the e-sourcing and e-procurement, and the 'value in' which requires a more collaborative form of relation between the members of these marketplaces, especially buyers and suppliers. In this article, we propose to study the communities using free software and adapt their key success factors to the marketplaces in order to design a new economic model based on collaborative commerce. The study of the Qt community and its influence on the excellent results of the company Trolltech will service as a basis for this study.

Keywords: *Marketplaces, Communities, Free Software, Economic Models*

1 INTRODUCTION

The multiple developments undertaken in the field of information systems, combined with the structural changes in companies' economic environment have led them to profoundly modify their ways of doing business. The free circulation of information in a network and its considerable availability contribute to the fluidity of the markets. In a pragmatic way, this phenomenon has led, over the last ten years, to the emergence of solutions known under different designations. They have been designated, in turn, as marketplaces, electronic or virtual markets, corporate portals, transactional platforms, sites for commercial exchanges, vortals, etc. Faced with a plethora of denominations, certain authors prefer to keep to the Anglo-Saxon name 'e-marketplace'. However, this frenzy for vocabulary is a sign of the existence of a multitude of architecture serving as a support for several types of interactions between buyers and sellers. Up until now, e-marketplaces have included services that are very heteroclite, transactional or informational, competitive or collaborative, free or for which buyers or/and suppliers must pay (Allal-Cherif and Favier, 2006).

Although they cover diverse realities and the phenomenon is relatively recent, it can be seen that the economic profitability of this subject is difficult to guarantee. Bankruptcies have multiplied in the past ten years. Numerous e-marketplaces have been struggling to reach there level of profitability, although they provide companies with real answers to their needs; the designers of e-marketplaces have had difficulties to create an economic model to provide them with satisfying return on investment. Classically this latter is ensured by drawing on the sums of the transactions undertaken thanks to the intermediation platform. This means of functioning which is usually associated with transactional e-marketplaces, has been brought into question as the potential users have rejected it on a large scale. The professionals also tend to think that this means of financing of the e-marketplace is rapidly reaching its limits. In B2B relations, the most that it does is to enable satisfying revenues to be guaranteed in the short-term, but viability in the long-term remains uncertain. One of the principal reproaches made concerning this model, is its incapacity to generate partnership relations over a long period since for each interaction, the single preferred signal is the one of price.

This is why, professionals and researchers alike are seriously reflecting on the 'good economic model' for e-marketplaces. Among the directions that this reflection is taking, one that seems particularly promising is making the simultaneous presence of communities of suppliers and sellers an opportunity for creating services with high added value to attract various actors. Companies involved in fierce competition are substituting for communities of practice based on collaboration. Nevertheless, this emerging pattern is still having difficulty in finding the elements for reflection to make it possible to arrive at a well-argued guiding proposition for the development of an alternative economic model. We would like our contribution to be concerned with this reflection. In order to do this, we propose taking our inspiration from another universe of information systems where a movement based on the notion of a community can boast that it is really successful. The universe of free software is in essence, and even philosophically, based on the idea of the co-development, by a community of enthusiastic members, of computer products made available to all of those who wish to benefit from them. Although the financial aspect seemed initially to be absent from this movement, a certain number of companies have been created around these 'free communities' and some of these have had impressive results. We would like to use these companies as our inspiration in order to stimulate a renewal of economic models for e-marketplaces. Thus, the question which will underlie all of this paper can be resumed in the following manner: in which way can the properties and the evolutions that can be observed in the world of free software serve as a basis for renewed thinking with regard to the development of a new economic model for e-marketplaces?

To this end, our paper will be divided into three parts. The first part will be initially concerned with a rapid categorizing of e-marketplaces. This will enable a clear identification of the important issues the designer of an e-marketplace has to face and the constraints that they cause with respect to the economic model. Later in the first part, we will describe a success in the world of free software which would appear to provide considerable information useful to modify the transactional economic model. The collected data originates from a series of semi-directive interviews and the use of closely-related material. By cross-relating the elements relative to this success and the constraints connected with e-marketplaces, we will be able to determine the degree of relevance of using a community dimension for renewing the economic model of e-marketplaces. The second part will be divided into two sections. We will begin by conceptualising the descriptive elements given in the first part. This will enable us to identify the salient facts and link them together in the form of attributes associated with functionalities. Looking at certain functionalities compared with those offered by existing e-marketplaces will lead us both to remark the incompleteness of the use of the community dimension and to make a series of recommends. Finally, in the third part, we will examine as much their technical feasibility and their economic relevance as their capacity to encourage adherence to each of the opposing parties.

2 THE LIMITATIONS IN THE ECONOMIC MARKETPLACE MODELS

The objective in this part will firstly be to provide a few elements relative to e-marketplaces with a view to obtaining a summarised view of their means of financing. Arriving at an awareness of the limitations associated with classical economic models of e-marketplaces, we will secondly propose describing the success of a company operating in the world of free software. Attention will be drawn to the original configurations that were implemented in order to ensure the profitability of this company and the elements used in order to renew the economic model for the e-marketplace will be identified.

2.1 Some diversity in the roles and actors in electronic marketplaces

Normally ' marketplaces' can be defined as an inter-organisational system of information where multiple buyers and sellers interact in order to accomplish one of the following market activities: "(1) identifying the partners in potential business affairs (2) selecting a partner in a potential business affair and (3) carrying out a transaction (Aubert et Dussart, 2002)". However, it has become necessary to distinguish two types of marketplaces: on the one hand, the non-transactional marketplaces which group together the sectional information and make it possible to identify the clients and the potential

suppliers; on the other hand, the transactional marketplaces which contribute to reducing costs and transactional deadlines. These two categories of marketplaces are considered separately from one another but their characteristics can be grouped together in the same Internet site either with a dominant dimension or with a balance between the two informational and transactional dimensions.

Marketplaces are new intermediaries between clients and suppliers. Their creation and their development is the result of investments by very various sources. Therefore one or several clients might join forces to create an electronic platform to reduce their transactional costs, make scale economies, facilitate exchanges between them and their suppliers and automate product research and transport. Auction tools and private catalogues can also be implemented as well as knowledge data bases, making it possible to capitalise on purchasing procedures, and technical specification grids. Virtual collaborative working areas only occasionally add to the palette of functionalities available on the site. Several suppliers may also group together to form an on-line consortium and thus obtain a larger public, whilst at the same time increasing their visibility and gaining advantage from the synergies of the complementary offers.

Auctions may be set up for low value added products such as raw materials or mechanical and electronic components. This form of virtual strategic alliance causes an intermediary to appear that has far greater negotiating power and benefits than all the companies that belong to it (Curchod, 2006). The independent actors in a market, that is to say, who are neither clients nor suppliers, may also create a marketplace in order to generate commercial activity in the fields where they were limited because the information concerning this sector was too numerous, heterogenic and opaque for it to be easily analysed A new intermediary is therefore set up by an organism such as a bank or a consulting firm in order to gather information from those who have it, to homogenize it and to file it so that it can later be made available to those who need it. It is the transparency, the rapidity, the fluidity and above all, the relevance of the flow of information emanating from such a marketplace which will be the principal value added. An intermediary that carries out the transactions between several buyers and several sellers such as a wholesaler, or a broker, for example, may also decide to create a marketplace in order to reduce costs and increase the volume of the transactions that he is capable of managing without having to invest in a larger structure. The business platform has the advantage of preserving his identity and capitalising on the relations of confidence that have been established between the intermediary and its different partners.

2.2 The failure of the first electronic marketplace models: the conflict between the cost out and the value in.

In this article, we have used as a basis the definition of Brousseau and Penard (2007): “we define a business model as a pattern of organizing exchanges and allocating various costs and revenue streams so that the production and exchange of goods or services becomes viable, in the sense of being self-sustainable on the basis of the income it generates”. For Porter (1986; 2001), the economic model (or business model) is described as an association of the company’s strategic positioning and its way of dividing up its created value.

The economic model is different from the company strategy “the strategy is concerned with growth objectives and competitive struggles, this is not the case for the business model, which aim is, above all, to make the identity of the organisation intelligible and to convince potential customers of its future success through the value it can bring to its stakeholders (Jouison, 2005). The ambition of conquering markets, clashes with marketplaces' inability to demonstrate in what ways they can be indispensable. Kaplan and Sawhney (2000) had already noticed that the message in the marketplaces lacked clarity and also wished to propose ‘the good business model’. Several criteria for evaluation and several hypotheses were proposed for identifying the activities of each of the marketplaces envisaged, as well as their principal sources of value. In their opinion, marketplaces particularly orientated towards either the buyers’ satisfaction or that of the suppliers, were much more effective than those which preferred to remain neutral claiming to satisfy them both equally.

Some clarification of the economic model had been made since the marketplaces first appeared, even if their strategic alignment, that is to say, the coherence between the their strategy and their organisational structure remain quite fragile (Ordanini and al., 2004). Moreover, in order to have a better vision and a greater mastery of the value created by the marketplaces that they use, certain actors have launched into the development of their own private marketplace, such as Peugeot or HP. Others, such as Schneider or Legrand have created a private marketplace based on a traditional marketplace, in this case Sourcing Parts, by developing a specific site directly in partnership with a service provider. They therefore have a personalised platform which defends their interests and in which they can freely intervene. But most of the marketplaces also claim to solve problems or satisfy needs, both for buyers that are competing against each other and for very different types of suppliers. This seems quite unachievable and could be difficult for prospects to believe (Ordanini et al., 2004).

These platforms cannot really be the solution to expectations that are so contradictory and heterogeneous. Moreover, very great disparities exist between the perception of the value created by different marketplaces by different buyers, by different suppliers and by the operator. This can also be explained by the fact that this subjective and variable value depends on numerous parameters and that it emerges from a co-construction in a network where the interactions are complex (Norman and Ramirez, 1993; Stabell and Fjeldstad, 1998). Virtualizing this value adds to the feeling that it is difficult to quantify and to qualify (Rayport and Sviokla, 1996).

To characterise the economic model of marketplaces, it is necessary to know the types of exchanges (physical, informational, financial and decisional flows), their volumes, the actors who carry out these exchanges (between the buyers, the suppliers, the service providers, the operator) the frequencies (regular or not, how often?) as well as the support used to make the exchanges. The systems of information used contribute to the centralisation and the standardisation of these exchanges and they generate new means of functioning with the use of mutual resources and the externalising of certain activities (Weill and Vitale; 2002). The value generated by the marketplaces is difficult to master, to divide up and to transmit to their clients. It is difficult to forecast before having used the platform, to calculate during the use of the tool, to anticipate in order to know the evolutions to come and to maintain, considering account the multiplicity of quantitative and qualitative parameters to be taken into account. However, the choice of whether to use a marketplace or not will be made according to this value for if the value created is not considerably superior to that which originates from traditional buying methods, the buyers will not see the advantage in using these sites, particularly as they lead to a disorganisation and a necessary adaptation which makes them lose a part of their performance. The marketplaces may have to commit themselves with regard to figures, but formalizing this commitment by contract is only conceivable with a risk of having to pay them penalties. These elements contribute to the bad image of marketplaces which promise a lot but do not guarantee very much.

2.3 The convergence between marketplaces and communities of practice: towards a new collaborative economic model.

After a few years of development and following the slump in Internet values, the service providers in the marketplaces have remarked on the diversity of the approaches set up for the buyers. They wished to consolidate their offers by developing more complete solutions in order to propose packages to their clients. This diversification in activities within the same site has led observers to envisage a new definition of marketplaces. Thus, “the electronic markets can be defined as being a group of virtual economic activities forming a new economy called digital markets where the01 agents (producers, intermediaries and consumers) supported by an inter-organisational system of information (today based on Internet, the web and the Browser as a universal interface) and using the virtual processes (synchronous or asynchronous), can exchange goods and services on line” (Amami, 2002). This definition was already valid for a marginal part of the marketplaces as some of them were, from their outset, an evolution of pre-existing virtual communities of practice where the members were already exchanging information concerning certain activities that they had in common. These virtual relations therefore

spontaneously generated a market (Pensel, 2001; Ordanini and Pol., 2001). The specialists in information management and those in transaction management combined their skills which led to mergers and buyouts of the platforms. Other sites changed their strategy completely and sold a part of their transactional activities in order to concentrate on collaborative work and knowledge management connected with a market. It is, for example what the marketplace did that was created by General Motors, Ford and Daimler Chrysler Covisint by reselling all its auction activity, which was the one which was the most strategic at the time of its creation, to Freemarkets in January 2005. This agreement was made following numerous restructurings and the elimination of 150 jobs enabling Freemantle, on the one hand, to consolidate its dominant position in the field of e- sourcing and, on the other hand, Covisint to focalise on old technology activities, collaborative management for the logistics chain and research and development.

However, despite all these efforts to make the offer evolve and to adapt it to the demand, numerous firms have continued to become involved in the development of private marketplaces (Allal-Chérif et al., 2003 ; Benda, 2003 ; Dominguez, 2005). E- business projects are multiplying both in the large multinationals that wish to benefit from a tailor-made solution and which has the means of investing in a specific tool and in the SMEs-SMIs for which the existing marketplaces are too costly, too constricting and often too complex to answer to their needs. The evolution of the economic model of the marketplaces that is both more complete and less transactional certainly makes them more attractive but is not enough to generate sufficient confidence and social relations that are strong enough between them and their prospects (Brousseau, 2002; Curchod, 2006).

3 THE SUCCESS OF THE ECONOMIC MODELS OF FREE SOFTWARE: THE QT / TROLLTECH CASE.

The basic data for our study is secondary data. It was gathered during the first quarter of 2008. After a phase of gaining awareness of the activity of the company through its institutional site, a methodical search of the available data on Internet (interview, user and developer forums etc) enabled us to arrive at a description of the relations between the different stakeholders. This description was given further depth thanks to the semi-directive interviews of certain members of the community studied.

3.1 The specific characteristics of the world of free software: proposed free charge in the marketplaces

“The reasons for the extraordinary expansion of the free model in this decade are diverse. The access that is often free, to the right of use, without being the essential characteristic of Free Software, has the power to attract in the short-term. Its influence on the overall economic results of the projects is however limited and would not be the basis of the durable success which has started to take shape” (De Galzain, 2007). The creation of applications in the world of free software can be characterised by a process of development based on the voluntary contribution of each person.

The possibility of interaction offered by Internet makes this development process, based on the use of communities of geographically dispersed voluntary programmers, viable. This community type architecture enables each individual to provide his knowledge in order to create application software capable of competing with systems named proprietary. In this type of environment, the participation of each individual is determined through a common objective (obtaining a coherent group of software, available to everyone and answering the common needs of programmers), by an idea or an ideal (the knowledge, the science and the technology that belongs to everyone) and is based on a ‘remuneration’ in the form of awareness and usefulness. Tordval, Perens, Stallman and others have thus become myths for thousand or fans/users over the whole world and their fame goes beyond the simple field of programming. For example, Stallman officially participates in UNO and UNESCO meetings as representatives of the alterglobist current of thought. : the FSF, Free Software Foundation.

Although originating, initially, with the principal of promoting the notion of no cost, the spread of this software and its integration in the sales offers has led the supporters of free software to imagine different types of relations with the merchant sphere. The use that companies such as IBM, Bull or Teamlog make of this free software shows that it is possible, based on a community activity that is totally without charge, to generate relatively large turnover figures. In fact, although the free software makes it possible to propose personalised software solutions,, the customisation of the tools developed without charge is in fact invoiced for sometimes quite large sums of money. It is the services associated with the software and not the software itself which creates value.

Management researchers have been concerned with the singularity in the means of development of free software. They have particularly considered the notion of communities for explaining this phenomenon. The activity of the contributors to the world of free software is regularly considered through an analysis of the communities of practice. Several communities have, in fact, joined together, for the development of computer tools that are an alternative to the proprietary software, in particular the software produced by Microsoft. These initiatives, often originating from a university environment, have had a success rate which worries the managers of large groups who see them threatened by new competition. The study of a free software community such as Qt and the highlighting of the structural and functional similarities with those of a marketplace will enable us to discover new ways of improving the economic model of electronic business platforms.

The e-marketplaces can use virtual communities that they accommodate by putting their members in contact and giving them free access to certain tools and to certain information but then encouraging these members to carry out transactions or to use certain products and/or services with a high value added which will be supplementary to the collaborative activities. For an independent e- marketplace that does not present itself as a place for buying and selling would have little chance of being sufficiently attractive to guarantee its subsistence. It will have to fulfil other functions beforehand which, while they are not advantageous financially, will give it considerable renown and generate a large amount of traffic. The stage of the virtual community is essential before reaching the level of development which will enable it to become, as well as being a unifying site bringing together ‘people from the same profession’, a platform for buying products and services associated with this profession.

3.2 From the community Qt to the company Trolltech

It was in 1991 that two university students from the German university Karlsruhe launched the project Qt. They founded the Trolltech company in1994 which today employs more than 250 people and claims to have more than 4,500 clients in 60 countries including IBM, Boeing, DaimlerChrysler, Motorola, Google, Sony, Pixar or the NASA. Based in Oslo with offices in Germany, China, California and Australia, Trolltech has had an exponential growth in its turnover figures since its creation, with an estimation of benefits of 20 million Euros for 2006. Trolltech’s commercial activities have been developed based on the product ‘Qt.’ QT (pronounced cutie) is a group of software tools which provide users of Linux, Unix, MacOS and Windows type operating systems with graphic interfaces adapted to their needs, as well as other functionalities for analysing data or managing networks. This development platform proposed initially in the form of a free solution served as a basis for creating the Trolltech Company. This latter promoted the Qt library, put it on line and dealt with questions on ownership by defining several means of use, of which one was totally free for non-commercial users. The singularity of Trolltech is that we are concerned with a ‘distributed entity’ which develops free solutions and transformed itself in to a ‘company quoted on the Stock Market selling applications and services.

The first version of Qt was, above all, a library put online which proposed graphic environments. The users of Qt initially grouped together with the two founders of the library Qt and the company Trolltech. The group of participants made up the community of practice. These computer specialists had exactly the same skills as the people who were developing the Qt tool box. They could therefore propose corrections to the engineers by sending messages on the forums on dedicated lines. The community structured itself around a particular objective: the creation of the KDE, an office environment of a

Windows type only using free software, principally composed of the KOffice sub project and destined to compete with the Microsoft offices and Mac. This K desktop environment initiated in 1996, resulted in the launch, in1998, of KDE 10. This community of users of KDE with a few dozen Internet users in the beginning, but more than 2000 members today produces and uses the different successive versions of KDE as a work tool, try the versions ά and β and assist the developers by sending them corrections and propositions of codes. The community contributes to the development of Qt tools and guarantees the quality of the software which is produced in collaboration with the Trolltech editor. It defends the values connected with the universe of free software with 4 fundamental type of freedom: software that is freely distributed and freely modifiable, whose modifications are themselves freely distributable and is absolutely free of charge thanks to the GPK (General Public Licence) which fixes the conditions for use of the free software.

The structure of governance of the community of KDE users is organised around an administration of five founders, official representatives who define the regulations and the level of quality of the coding, and a staff of 280 designers who collect the codes and optimise them. These people, co-opted by their peers, receive no financial benefit for their work, but a certain form of social recognition and the possibility of promoting the values, the methods, the tools and the projects belonging to the community. Nevertheless on an individual level, belonging to a community increases the professional attractiveness of the members. In fact, the community authenticates the technical and/or managerial skills (collaborative project management) of the members and gives them the opportunity to construct a network of partners that could be used in their professional activities. Moreover, this type of community is often source which head hunters delve into. The KDE community, in a certain way, plays a role of service marketing for Trolltech and the editor of Qt, that allows the use of its products, fee of charge for domestic use, but which commercialises them for commercial usage. The community gets together physically for meetings and annual forums which are in fact exhibitions where the developed products are presented to the public, with the potential users of GPL and possibly professional who are clients wishing to acquire a licence. The KDE community functions in a way completely independent from the Trolltech Company (www.trolltech.com).

The two entities have contact with each other and evolve side by side. Their history cannot be disassociated and their success would not have been the same if synergies had not been created between the two. The difficulties encountered by a project competitive with KDE, GNOME (GNU Network Object Model Environment), another fee office launched in 1997, shows the fundamental role of the community of Qt users who were won over by KDE. The simultaneous independence and the interdependence of the KDE community, of the editing company Trolltech and the market of QT users constitutes a unique configuration. In fact, the community has evolved in a completely autonomous way as far as its contents are concerned, whilst still being a means for Trolltech of doing research and development. A part of Qt users belong to the group of designers through the intermediary of KDE but the Trolltech company does not intervene in the exchanges which take place in the KDE community. KDE is only a step in a value chain leading to the design of Qt. The KDE community only produces the KDE office with its derivatives such as KOpete (instant messaging), KPhotoAlbum (image processing), K3B (CD recorder) or KOffice (office suite). Trolltech only produces Qt and its derivatives including QTopia (graphic interface). KDE is free and has a large number of users who indirectly use Qt and promote it showing its capacities and its potential. The Qt technology is therefore spreading thanks to the KDE community and the Trolltech company benefits from free publicity for the technology it commercialises.

4 INFORMATION OBTAINED FROM THE QT/TROLLTECH CASE AND RECOMMENDATIONS

At the end of this description, different salient points seem to us to clarify our reflection on the possible ways of renewing the economic models for e-marketplaces. We will use the example of the Qt community as a basis for showing how certain specificities connected with the association of this community and the Trolltech Company could be transposed to the economic model for the marketplaces.

4.1 Federating the actors in a market, a practice or a profession

"The value is no longer to be found in the culture of a secret and the mastery of a code, but in the ability to communicate, to construct and to federate a community, to recruit new talents, then to generate the need for additional services. A user does not buy more basic software; he buys specific modules, professional expertise and the set up that exactly covers his own needs. The model is based on the creation of value added and no longer on a benefit economy". (De Galzain, 2007). This citation concerning free communities could practically be applied in an identical way to the marketplaces. In fact we note that there is a very large demand on the part of buyers for functionalities that are more qualitative and specific both for their profession and their sector. The search for expertise is associated with the wish to build up durable partnerships with companies whose skills are complementary. The pooling of knowledge is no longer an obstacle: the actors naturally share information, pursue a common goal and have a sense of solidarity towards each other in order to confront their competitors and conquer new markets. It is this ability of the platforms to group together good information and good skills in order to create synergies, which for them is the principal key factor for success. Making both collaborative tools and personalised services available is also becoming essential in order to perpetuate the virtual alliances and the communities of practice which will emerge thanks to the marketplaces. It is therefore advice, support, development, certification or increased security, which are at the heart of their economic model as well as the accounting preoccupations which prevail today.

The cost free access to the platform is also a prerequisite, as for the free software, as it is the fact that it is free of charge that will lead to collaborative situations generating needs for services that the marketplace will be able to propose in an opportune way and invoice according to the value that is perceived of the partnership. One could talk about a virtuous cost free circle: The no cost access to the platform and to the information that it contains will bring companies closer together which will lead to them using fee paying services and will therefore enable them to enhance the free contents and to make them even more attractive. The site is therefore, above all, a knowledge base which will bring its users together under its identity and create a virtual community of practice capable of creating opportunities for bringing users closer together thanks to the encounters that will take place in the marketplace.

4.2 Stimulating the activity thanks to reliable rapid and evolving software resources.

It is imperative that the process of making virtual contact appears to be more efficient than the traditional management of the relations between buyers or suppliers, or even between buyers and suppliers. In the case of free communities, "the dynamism and safety of the developments implemented by the communities have led to competitive and economic advantages for the companies whose activity is based on Free Software. In particular, the use of Free Software has made it possible to reduce the time to market of a solution and improve the productivity of the digital economy by fitting itself into a strongly reactive globalized market for a minimal organisational cost » (De Galzain, 2007). In the case of marketplaces, the time to market is equally critical because of the necessary urgency when replying to certain bids and the shortening of the product life cycles.

There is already a great deal of transparency in the marketplaces. However, problems of governance are limiting the rapidity of interactions between the members because of the ambitions of individuals and the challenges connected with power. Collaboration is restricted by the absence of leaders and coordinators who would animate the marketplace, making it a place of meeting and privileged exchanges based on a type of altruism and not one of opportunity. A major obstacle is therefore the fact that the buyers do not see themselves as belonging to a group. "The creation of a value in Free Software is linked to the rapidity in which solutions are made available and their evolution, also taking into account what possibilities are offered by the new methods of collaborative work. The professional actors in the market are situated in a continuum which extends from the profession of editor to services (…). The methods of collaboration in Free Software are themselves kept in laboratories all over the

world as models for sharing: forums, Wiki sites, P2P, software creation, community governance, etc" (De Galzain, 2007).

In the marketplace, certain functionalities make it potentially possible to increase the loyalty of the users; others are dedicated to increasing the volume of transactions, others, in fact, only correspond to the addition of properties which have the purpose of increasing the attractiveness of the e-marketplaces. But no functionality exists which makes it possible to develop the feeling of belonging of a community of users or practice. However, internal and external collaboration within a project mode has been developing in certain professional sites and this has made it possible to work in a project mode on the creation of new products.

4.3 The new potential functionalities in the electronic marketplaces.

The Trolltech case has caused a certain number of attributes to emerge which could potentially be integrated in varied forms into an economic model of the e-marketplace. We propose summarising all of these elements concerned with our case study in the table below:

The manager can, on the basis of this table, the manager envisage different strategies for renewing the economic model of the e-marketplaces which are under his responsibility. These different strategies will correspond to the focalisation of the "-marketplaces on certain attributes given media coverage by certain functionalities. From our point of view, different categories of the main strategies will have a particular relevance according to the problem issues of the manager of the e-marketplace.

Freedom	No connection with subordination
Community	Collective development of the expertise of the members of the community
Transparency	Information is shared and knowledge is pooled
Free of charge	Access and participation in the community is free of charge
Rapidity	Interactivity should make it possible to reduce time to market.
Adaptability	Personalising solutions is essential for creating loyalty
Democracy	Certain actors should not be privileged to the detriment of others
Attachment	The members attribute an affective value to the community

5 CONCLUSION

At the end of this work which had the objective of studying the transferability of key success factors from the world of free software to the field of marketplaces, different contributions can be mentioned. In fact, this work made it possible to indicate the limits of the purely transactional approach of marketplaces and to provide a few elements for developing a form of financing more broadly based on the notion of community.

On the basis of an examination of the success of companies operating in the field of free software, we have highlighted a series of attributes which could potentially help managers to solve the problem issues that they encounter. A summarised presentation of these elements will enable them to identify different attributes which are not yet included in his offer. Moreover, the propositions of technical functionalities associated with these attributes will enable them to consider the technical feasibility of these elements and to carry out a cost- profits analysis. Our series of recommendations relate these functionalities to the problem issues classically encountered by managers of e-marketplaces.

On the other hand, this work has a number of limitations. Although it claims to be of an exploratory nature, it is still the case that the recommendations formulated are only based on a single study within the world of free software. Other companies in the field have developed strategies for economically developing their products which are very different and these latter surely contain elements which would

enable us to complete or even renew our list of attributes. Moreover, even if this work has received favourable reactions from some managers in e-marketplaces to whom we presented it, a study of its admissibility needs to be undertaken. Finally, the limitations in this work can also be directions to for further analysis.

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