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Book Chapter

Interview with Frank PILLER Aachen University, Germany / MIT Media Lab, USA

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Interview with

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C&S: Why are you interested in open innovation?

Frank PILLER: We today know that the time of the sole Schumpeterian entrepreneur is over. While there still are examples of individuals making great innovations on their own, today successful innovation is a team game.

This is not new *per se*. But with the internet, a number of new tools and interaction possibilities have been made possible to supplement traditional forms of external partnerships in the innovation process. When I refer to open innovation, I am not talking about contract research, supplier innovation, research alliances, or market research. Open innovation in my understanding builds on new, crowdsourcing-based methods that connect an innovating firm with "unobvious" others; people that are not in its regular list of partners or in its own industry.

The core idea of open innovation is to work with an organization or with someone you didn't know previously. When you have a problem to solve, you make it known, circulate it - whether on a large scale or by going through specialized channels like Innocentive or NineSigma.

And thanks to large network effects, going through this type of channel is not expensive any longer, we are talking about project fees of $20,000 or less.

Is open innovation more relevant than ever?

Definetly, I'd say yes. Technologies have evolved so much that companies need help if they want to keep up. You know, whether you are a very large or a small company, customers now ask for solutions, not just products. But when you sell solutions, you need more expertise and knowledge. The outsourcing mentality is well established in the manufacturing sector. In Germany, for example, open innovation is becoming popular at the moment, as we have a lot of trouble recruiting engineers.

What type of company can open innovation apply to?

Most of the present users are manufacturing companies, particularly multinationals. Companies like Unilever and Procter&Gamble, which constantly have to bring out new products and have been pioneers in open innovation. It is similar in the pharmaceutical industry where research is very expensive and highly complex. Car manufacturers have been reluctant for a long time, but I think this is slowly changing. The sectors which, in my opinion, would benefit from using open innovation is small and medium enterprises. SMEs have far fewer resources for innovation and often lack the time to tackle it. And I strongly recognize a growing interest from this sector today.

Is open innovation a business imperative yet? What would happen if companies continued to remain closed and locked into the traditional way of generating ideas and products without external collaboration at the society level?

Well, I would say truly closed innovation is not possible anyway. All innovation is built on existing knowledge and some form of networking. But the term open innovation suggests that a company build dedicated practices to make the connection with the best external knowledge for a given innovation task better and more efficient. So for me, open innovation is not a business imperative, but a set of practices and organizational capabilities to connect with a firm's periphery for innovation.

Having said this, however, our research finds that companies need a dedicated balance between openness and closedness [1]. Being too open also comes at a cost, and firms need to build dedicated internal organizational practices to become more open.

Customers are often considered the most important source of external input for innovation. But is this really true? As proven in many idea contests, great ideas come from the "common man" or outsiders. How can a company engage with these users?

Here we have to make an important distinction. Research, originating from the path-breaking work by Eric Von Hippel at the MIT, has shown that many commercially important products or processes are initially thought of by innovative users rather than by manufactures. Especially when markets are fast-paced or turbulent, so called lead users face specific needs ahead of the general market participants. Lead users are characterized as users who (1) face needs that will become general in a marketplace much earlier before the bulk of that marketplace encounters them; and (2) are positioned to benefit significantly by obtaining a solution for those needs.

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[1] Look for more at http://ssrn.com/abstract=2164766

But lead users are NOT average customers or users. There are only very few lead users. Average customers are in general neither innovative nor do they want to engage in innovation. Hence, it is the task of a company to identify these lead users by specific search and screening methods. There is not enough space here to describe these methods, but they are very well documented (look at Eric Von Hippel's MIT homepage for some examples).

And ideation contests indeed are a great way to engage with "unobvious" users and idea providers. A company broadcasts a task or challenge, calling for ideas, and users self-select to participate. In this way, it is not representative customers like in market research or focus groups who provide input, but people that really have a problem or already a solution.

In a way co-creation can be defined as outsourcing idea generation to the society. What is your exact definition of this concept? And what is the main benefit for companies?

Customer co-creation has been defined by us as an active, creative and social process, based on collaboration between producers (retailers) and customers (users). Customers are actively involved and take part in the design of new products or services. Their co-creation activities are performed in an act of company-to-customer interaction which is facilitated by the company. The objective is to utilize the information and capabilities of customers and users for the innovation process.

The main benefit is to enlarge the base of information about needs, applications, and solution technologies that resides in the domain of the customers and users of a product or service. Examples for methods to achieve this objective include user idea contests, consumer opinion platforms, toolkits for user innovation, mass customization toolkits, and communities for customer co-creation.

The main benefit for companies is to enhance the "fit to market", but also to engage in a more interactive, engaged relationship with their customers and users – with great effects for relationship marketing!

Being open about problems are not yet a norm in the market place, where companies are conversing predominantly about what they know, more than what they do not know. What are your comments?

Good question! This indeed is one of the largest challenges we see in the field today. Many companies know about the tools or methods to co-create that I named previously. But they are not ready to internally exploit the knowledge generated with their customers and users. Here I believe we still need plenty of change management to change this mind-set you mention!
This is a field where I believe we also need more research. Firms need more information and better guidance on how to assess whether their organization and branch are suited for customer co-creation. This information is crucial in order to build specific competences that aid firms in identifying opportunities

and ultimately in using the right method. Managers need a clear picture of their own organizational settings and capabilities before being able to answer important questions during the implementation of one's own customer integration initiative. This could include answers to questions like how innovation projects have to be reorganized, which kinds of projects are suited for customer integration and how the internal development processes have to be adjusted in order to allow optimal customer integration.

The internal readiness of companies – such as having a co-creation team/department, methodology, etc. – is often lacking in companies that spend huge sums on co-creation projects, which are mostly managed by corporate communication departments or marketing departments. Do you advocate the formation of a multi-disciplined co-creation team that can do the job of creating, running co-creation projects? Is it not an exclusive, specialized professional/managerial skill – like branding, marketing, finance – by itself?

Yes, you already provided the answer by yourself. The problem, however, is that there are still very few companies that have such a co-creation team in place, many even don't have one functional manager taking care of the initiative. But this will change, and I think that the first organizations are building exactly these interdisciplinary teams you are talking about.

What is the link between the success of a co-creation project and the performance of the base product or initiative?

To answer this interesting question, we only have anecdotal evidence that co-creation provides value. But large scale quantitative research is lacking. However, I know that several researchers are just in the progress of conducting this research, and so I hope that in a few years or so, we will get a better answer on the performance effects of co-creation. A very first study recently has been published by Martin Schreier from WU Vienna, and he found together with a team from Japan, using data from a large Japanese retailer, that indeed user-generated products are much more profitable than internally created products (more at http://tinyurl.com/ae2bu6a). And I personally have seen many companies profiting from co-creation, if it is executed correctly and the results are used internally in the right way.

Thank you for the interview, Prof. Piller!

Interview with

Henri VERDIER
Director of Etalab,
Services of the French
Prime Minister

Conducted by **Gilles FONTAINE**
IDATE, Montpellier/Paris, France

Photography, courtesy of Olivier Chatel

C&S: Henri Verdier, you were co-author of *L'âge de la multitude* ("The age of the multitude"), which explains how individuals, outside organisations, are now crucial to creation and growth. Do they play a particular role in the process of innovation of products and services?

Henri VERDIER: Certainly.

Their first role, as we often forget, is to choose, from among all the inventions, the ones that they will make true innovations. That is to say, the ones that will be transformed into progress, both because the audience has adopted them and because of the uses it will make of them. It is in this sense that we speak of "use-driven innovations": not because they are driven by the value of use, as marketing sometimes imagines, but because they are driven by "usage patterns and customs", by the manner in which society organises itself with these innovations.

But this isn't something that dates back only to the beginning of the digital age - it is the common law of innovation in Humanity. What has changed of late is the number of individuals who are educated, equipped and connected, who, by virtue of the sum of their creations, or even their small contributions, can support radical innovations as we see on the internet.

This is rather good news. But at the same time, we must be aware this "free labour" of internet users, whether they are active (voluntary contributions) or passive (through data or even usage history), can also be monopolised by major platforms. Most of the time, internet users feel that the service rendered to them by these platforms is only worth the contribution they are able to make. But it is clear that this can raise a few questions, in terms of protection of privacy and international taxation. Thus Nicolas Colin, co-author of *L'Age de la multitude*, was tasked with reflecting on the tax implications of this new means of creating value.

Are the social networks the nexus of this open innovation, driven by users?

Yes, if you accept a broad definition of "social network". The big social networks are of course major players in digital. But the phenomenon goes far beyond what happens on Facebook or LinkedIn...

It is quite easy to see that most of the major digital applications have a social dimension, even if you wouldn't call them "social networks" per se. Such is the case of Flickr, digital cameras that automatically connect to YouTube, Google searches, etc. The famous online teaching service, Coursera, probably owes its success not to the quality of its courses (other prestigious universities had already launched similar services), but rather to the power of interaction it affords among students. Someone had this say: "People had never seen an educational project that delegates part of the work to the students themselves."

More broadly, one could say that communities are the basic unit of the internet. The fact that you have friends, belong to a community, share your interests, support a cause, etc. make you a stakeholder in the internet. There are therefore social networks beyond the realm of Facebook and Twitter. The great experiences of crowdfunding, crowdsourcing, viral communication, etc. do not necessarily go through the social networks. So we mustn't neglect any of the networks that emerge on the web: massively multiplayer games, virtual campuses, virtual currencies with their user communities, NGO activists – all of these have the potential to greatly empower the individual.

What is your take on the living labs, which hope to bring users together upstream in the innovation process?

It's an excellent approach when it doesn't get caught in the rut of being an overly utilitarian "test bench". Living labs, as with all those third-party spaces that are fond the digital ecosystem (coworking spaces, Fablabs, etc.) are fertile when they are alive. They must leave room for the unexpected, for creative randomness ("serendipity"), develop subtle listening, propose new formats of interaction, find co-creation strategies, etc.

You also presided over the "Cap Digital" Centre for Competitiveness. How can companies rethink their innovation processes to take advantage of this new situation? In particular, how do you see the future of R&D in big companies?

Firstly, I think it is essential that the major technology companies pursue and intensify their R&D efforts. The basic materials of innovation come from research and development, and if there is one characteristic of our times, it is that the pace of innovation continues to accelerate.

One should not, however, confuse R&D with innovation. Innovation is not the natural continuation of R&D. There are big innovative companies that do not have R&D, particularly in the fields of service, content publishing and communications. And where innovation is concerned, every company should

learn to better harness the strength of the multitude. Such as by involving their own employees in the multitude. The formats of open innovation, listening and working with one's market, and incorporating design into the heart of the decision-making process are starting to become rather well documented methods.

Does this vision of "open innovation" imply a change in the way intellectual property is managed?

This is a complex question.

Since the internet has become popularised, it is caught between the opposing forces of openness, open source, and being free, on the one hand, and closure, protection and privatisation on the other. This tension is structural. One the one hand, there wouldn't be any progress, perhaps even a company, without information commons (what would science be if the results of research weren't accessible to other researchers?). At the same time, we are well aware that most economic sectors need clearly defined assets to prosper. It is likely that the best answer is to strike a happy medium.

But, personally, I think nowadays there is a tendency to broaden the scope of application of intellectual property too much. Copyright was originally intended for intellectual work which was a creative expression of the author's personality. That is to say, work from his very soul, as it were. I'm not so sure that people have put their soul into all the creation for which this type of copyright protection is being claimed.

You are now the director of Etalab, the agency responsible for promoting open data in France. Could one say that shared data is the prerequisite of open innovation?

Yes, that is what I believe.

This is not the only reason it is good to open up and share public data: citizens also have a right to demand the accountability of authorities, which is the hallmark of democracies. And there are innovation strategies for the administration itself, since creating large open repositories is often a guarantee of improving an organisation's efficacy.

But supporting innovation is clearly a key component of opening up public data. The services developed by citizens, individuals or companies using such data are impressive. We see them at every edition of the Dataconnexion event launched by Etalab, and they are really quite impressive.

The opening of public data will increasingly become a springboard for industrial policy. It will become a strategy for attracting innovation to one's territory (since these creators work in the territories that have published

data), even transforming public action into a platform and preventing these innovations from becoming monopolised by other players.

Is the opening of data often associated with public data? Should companies be encouraged to share their data more? How?

In this respect, the State began before the business, which is understandable. The right of citizens to access public information dates back a long time. It is enshrined in the Declaration of the Rights of Man and of the Citizen, and has been part of French legislation since the CADA Law of 1978.

The debate on the opening up of public data has therefore not been too concerned with data held by companies. But I think the question will arise one day.

It will be raised because large companies too will discover the potential to boost efficiency by placing large repositories online and increasing their transparency. It will also be raised since companies will one day likely have to identify the "information commons" that it owns and which must be made accessible to all. This will probably happen when the big data collectors reach such monopolistic proportions that States are forced to require that they open up these new kinds of infrastructures to competition.

Thank you for sharing your thoughts with our readers.