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# PROSUMPTION – CONSUMER CREATIVITY IN E-BUSINESS

#### Introduction

Over the last few centuries the economy of the developed world has been dominated by capitalism. Its early years were dominated by production, especially in factories. Much more recently the focus shifted to consumption (with the shopping centre coming to rival, or even supplant, the factory as the centre of the economy). However, it is our premise that a capitalist economy (and even pre- and non-capitalist economies) has always been dominated by prosumption [Ritz09]. Prosumption involves both production and consumption rather than focusing on either one (production) or the other (consumption).

The aim of the article is focused on prosumption as a form of consumer creativity. In the present economic model creativity as a task lies on the side of the producers, as they have had to deliver innovative products to meet, or even create, consumer needs. In the era of prosumption, it is the consumers who can satisfy their needs for innovation and creativity by creating and modifying products not offered by the manufacturers.

## 1. Production, consumption, prosumption

From the beginning of the Industrial Revolution, and for about two centuries thereafter, the economy of the West, if not Western society in its entirety, was said to be defined by production. When one thought about the economy of that period, the focus was almost always on production. Production was the focus, and even in fully understanding its relationship to consumption and vice versa, the role of production was a leading one.

Production predominated for almost two centuries. Starting from the 1960s, production, especially in the United States and later in Western Europe, moved from heavy industries towards the production of consumer goods. Production

was still seen as preeminent, but the pendulum was swinging in the direction of the centrality of consumption. At this time shopping centres, restaurants, fast food places and many more such places significantly developed. Since the crisis of the 1970s to the present day, this situation has only been intensified. An economy driven by the consumption of goods is increasingly produced abroad, mostly in China.

However, since the end of 2007 both production and consumption decreased as a result of the global recession. The development of prosumption can be noted along with the development of the Internet, social networking, Web 2.0, and the e-economy.

The term *prosumption* was first used in the book *The Third Wave* [Toff80] by an American sociologist and futurologist – Alvin Toffler. Toffler argued that prosumption was predominant in pre-industrial societies – what he called the "first wave". This was followed by a "second wave" of marketisation that drove "a wedge into society, that separated these two functions, thereby giving birth to what we now call producers and consumers" [Toff80]. Thus, the primordial economic form is neither production nor consumption, but rather prosumption. This Third Wave of society, a megatrend, would see more people spending their leisure time producing goods and services for their own use, and in effect marking a return to prosumption activities. Toffler understood prosumption as shifting some tasks from the producer to the consumer with the concept of *do-it-yourself*, also as the increasing involvement of the consumer to do tasks which had formerly been performed for that consumer by someone else. Many people appreciate the work of other people's own hands; it is a reason for them to be proud of.

Bill Quaine sees prosumption slightly differently [Quai02]. He understands it as some sort of loyalty programme. The producer provides loyal customers with a system of attractive discounts as well as participation in profits from the market for their help in promoting the producer's products. With this formula of business the money spent by the customers on the necessary products goes back and becomes a source of income.

On the other hand, D. Tapscott defines prosumption as the desire to have goods that are consistent with the client's imagination. The author believes that through the individual choices and actions of the buyers, they become the coauthors of the product [Gach08].

The main factors stimulating prosumption processes are primarily the following:

- increase of leisure time as a result of automation and robotic manufacturing processes and the need to spend this leisure time in an attractive way,
- the ability to perform work at home and to interlace it with consumer activities,

- the development and dissemination of education, and especially of continuing one's education,
- changes in the organisation of work and reevaluating its role in human life, the evolution towards creative work.

Classic examples of modern proactive consumers are the clients of Ikea shops. The consumer decides to purchase a product, such as cabinets, brings the furniture home and begins assembling it according to the instructions included in the package. The client's own share of the work in creating the furniture causes the client to believe that money has been saved – money which otherwise would have been spent if someone did the work. The great benefit of selling disassembled furniture for the company is the obvious lack of need for assembly, thus facilitating logistics processes by using smaller packaging of goods sold.

Education is a special form of prosumption. This is because of the characteristics of both consumption (meeting the needs of knowledge, experience, intellectual, aesthetic, etc.) and the characteristics of production (increasing one's qualifications, skills, expertise, etc.). Education is thus a kind of synthesis of consumption and production, and more specifically, of consumption and investment.

## 2. Prosumption in e-business

Almost ten years after the publication of Toffler, Tapscott and Williams, in their work [TaWi08] they popularised presumption by giving it the status of a core business in a new economy which is dominated by cooperation and peer-to-peer relationships between its participants. This form of activity is innovative and creative to the benefit of all participants.

The expansion of the Internet did not immediately contribute to the growth of prosumption. The first stage, called Web 1.0 (e.g. Yahoo, Amazon, etc.) was, and still is, created by the service provider, not by the user. However, here the first elements of prosumption can be found. A good example is electronic banking, where the client him or herself provides the data to the system, such as a credit transfer or by taking out cash at an ATM, and thus assumes the role of a bank clerk or cashier. But only at a later stage, called Web 2.0, was the content created together by the users. With Web 2.0 there was a big bang of prosumption. By analogy to the capitalist means of production, Web 2.0 portals have become the new economy means of prosumption.

Examples of this category include:

Wikipedia, where users can create, edit and update articles and lead a discussion about them.

- Facebook, MySpace, nk.pl and other social networking sites where users can create profiles that include photos and videos, and users can communicate with one another in order to build a community,
- Second Life, where users create the characters, communities and the entire virtual environment,
- the blogosphere, blogs (Web logs), microblogging (Twitter) and the comments that are on them produced by those who consume them,
- eBay and Craigslist, where consumers (along with retailers) create the market,
- YouTube and Flickr, where mostly amateurs upload and download videos and photographs,
- Linux, a free, collaboratively-built, open-source operating system, and other open-source software applications, like Mozilla Firefox, that are created and maintained by those who use them,
- Amazon.com, where consumers do all the work involved in ordering products and write the reviews. Also, the users' buying habits and site navigation are documented to recommend products,
- iTunes and Google Play stores, which gather the content of all the software manufacturers and can sell them on a single platform.

Moreover, there is a large number of portals where users are given the tools to create their content. Web 2.0 services are enjoying a growing popularity. Users spend more and more time on all of these Internet portals, while at the same time more and more people are using these services to enable the creation of new content.

# 3. Consumer creativity

Prosumption is not only self-performing certain activities, such as those of a producer, seller or other support staff, it is also creating new products or innovations. The simplest example of this is directed to customers inventing new slogans. But not only. Creativity only through the internal research and development of a company is becoming less efficient. The whole process takes too long, and very often the results do not fully correspond to the needs of customers.

The new approach aims to incorporate the organisation's environment, with a particular emphasis on consumers. It is they who know what they need, and they are not only able to say what it is, also to construct it. A growing number of examples shows that the role of the company is beginning to become limited only to the manufacturing and distribution of the product, as the other functions are being taken over by the consumers.

Among the many specific activities related to the creative consumer–prosumer, D. Tapscott and A. Williams [TaWi08] include:

- adaptation to user needs: product-specific applications, but also deeper involvement in the design process,
- getting rid of control: their own products as a platform for innovation, regardless of consent or its lack,
- tools for consumers and arranging the context of use: the products are considered as a basis for experimentation,
- sharing the fruits: the prosumers' right to what they have created and to additional earnings, which increases the rate of consumer co-creation.

A great example of user's creativity is the development of free software, particularly of the Linux operating system. Free software under the GNU Manifesto [GNU12] is a matter of liberty, not price. Free software is a matter of the users' freedom to run, copy, distribute, study, change and improve the software. More precisely, it refers to four kinds of freedom for the users of the software:

- 1. The freedom to run the program, for any purpose (freedom 0).
- 2. The freedom to study how the program works and adapt it to one's needs (freedom 1). Access to the source code is a precondition for this.
- 3. The freedom to redistribute copies so one can help his/her neighbor (freedom 2).
- 4. The freedom to improve the program and release one's improvements to the public so that the whole community benefits (freedom 3). Access to the source code is a precondition for this.

The software is free if its users can take advantage of all these freedoms. They have the freedom to distribute copies of the original or modified copies, either free-of-charge or by charging a fee for distribution. With the guarantee of such freedom, hundreds, thousands or even millions of people are currently working on improvements to the system and supporting applications, thus creating huge intellectual potential.

A similar situation occurs with the creation and development of other free software, such as content management systems (Drupal, PHP-Nuke, Plone), Wiki (MediaWiki), database management systems (Firebird, MySQL, PostgreSQL), graphics environments (GNOME, GNUstep), office productivity suites (OpenOffice, KOffice), typesetting (TeX, LyX, LaTeX), learning support systems (Moodle), Web browsers (Mozilla), and many others.

Social creativity takes place not only in open source software projects, as many companies making their products give users the opportunity to participate in the modification, improvement and gearing to their own needs. When thinking about creativity the LEGO company should be mentioned. LEGO has launched

a series of Mindstorms [LEGO12a] which allow consumers to create true robots from programmable parts. It turned out that the toy, originally aimed for children, was highly appreciated even by adults. Within a few weeks from the date of sale users developed and reprogrammed the sensors, motors and controls. The LEGO company decided to take advantage of the consumers' potential. From the company's website home users can download a free set of tools enabling the creation of robot control applications. Users can also publish a description of their projects, e.g. the code of the program and a list of parts needed to build the device.

The LEGO Mindstorms series has been so successful that the company has decided to use the potential of their consumers in the design of traditional bricks. In 2005 LEGO created the LEGO Factory [GAJE09], where customers have access to a virtual storage house of LEGO elements with which they can create their own sets of bricks. These consumers-prosumers can download free software from the network and design a virtual toy, then everyone can upload his/her project to LEGO and order it in the form of a set of real bricks with assembly instructions. Each project is available on the Internet as an example model. An extension of this idea is LEGO DesignByMe [LEGO12b], which allows one to design his/her own models, share them on the network and even create one's own set by giving it his/her own name.

Sometimes modification and extension by customers is contrary to the imperative of the business. Prosumers can use their products in entirely unexpected ways, as exemplified by the famous modifications of Apple's iPod, iPhone, iPad, or Sony Playstation.

"Customers get what they want, and companies do not have to pay for research and development. However, it's not so simple" [Knia12]. Users of Apple products improved the products to such an extent that it was out of control for the parent company. The users developed software that allowed to install applications without using the official iTunes store. A number of applications conflicting with the company's policy is available on an alternative distribution platform that is independent of Apple.

Similarly, consumers of Sony Playstation reworked the console to obtain a functionality that was not planned by the manufacturer. This allowed installing it on other operating systems, the use of an efficient Cell processor to perform any calculations, combining several consoles to create a multiprocessor machine, and copying content or SACD discs – which is impossible to achieve in any other way.

Focusing exclusively on the question of whether the phenomenon is something positive or negative for corporations should not be a priority. More important is the inclusion of the prosumption process in creative value creation. For

companies that are trying to force protection of their intellectual capital and wish to rely on just their own innovative ideas, this will constitute some risk, while for open organizations that treat consumers like partners and come out to meet them, it will be an opportunity not only to catch up with the market leaders, but also to outperform them.

## Summary

There is a growing number of examples enabling consumers and innovative production processes. These show that consumer creativity can and is used to create new or to improve existing products and services. Prosumption is an opportunity to continuously create innovative ideas and to achieve higher profits by reducing the costs of research and development, and also for building a community. It is also a chance for success at innovation, because it is directly the customers, not the employees of R&D departments, that define the needs. Therefore, it is expected that organizations will see prosumption as an opportunity to achieve a competitive advantage.

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# PROSUMPCJA – KONSUMENCKA KREATYWNOŚĆ W E-BIZNESIE

#### Streszczenie

Prosumpcja jest ideą ekonomiczną, zgodnie z którą konsument dobra jest jednocześnie jego producentem. Rozwinęła się ona wraz z serią zmian społecznych, w szczególności związanych z rozwojem Internetu, Web 2.0 i biznesu elektronicznego.

Artykuł skupia się na prosumpcji w aspekcie konsumenckiej kreatywności. Prosumpcja daje możliwość stałego wzrostu innowacyjnej kreatywności i osiągnięcia większych zysków poprzez redukcję kosztów działów badań i rozwoju. Daje również możliwość zbudowania społeczności użytkowników, zwiększa szanse sukcesu innowacji, gdyż to bezpośredni klienci, a nie działy badań i rozwoju w korporacjach definiują potrzeby. Dlatego umiejętne jej wykorzystanie może być źródłem przewagi konkurencyjnej.