

THE PROSUMER - CORE AND CONSEQUENCE OF THE WEB 2.0 ERA

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Abstract:

The term prosumer is a combination of two words - producer and consumer- that perfectly describes the millions of participants in the Web 2.0 revolution.

Even it's not a new word, it's already being used by companies such as Sony to describe users of video cameras, it's a word that express so well the core and consequence of the Web 2.0 era.

Because Web 2.0 enables consumers to become producers, we are entering an era in which anyone can be both a consumer and provider of content on the Internet. This article studies aspects and makes considerations about this subject.



Keywords: web 2.0, user generated content, social media

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Abstract:

Termenul “prosumer” este combinația - contractia cuvintelor producator (producer) și consumator (consumer) care exprimă perfect milioanele de participanți in revoluția Web 2.0. Chiar dacă nu este un cuvânt nou, el fiind deja folosit de companii precum Sony pentru a descrie într-un mod plastic utilizatorii semi avansați de camere video profesionale, poate fi considerat un termen care exprimă foarte bine adevăratul miez, precum și consecința erei Web 2.0. Deoarece Web 2.0 permite consumatorilor-utilizatorilor să devină în egală măsură și producători, ne aflăm într-o eră în care oricine poate fi atât consumator, cât și producător de conținut in Internet. Acest articol studiază aspecte și face considerații asupra acestui subiect.

Luminița GIURGIU este conferențiar la Academia Forțelor Terestre din Sibiu, în Catedra de Științe Tehnice. Domeniile sale de interes se referă la programarea web, software-ul social, folosirea noilor tehnologii informaționale în educație, mediile virtuale de învățare și colaborare.

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I. BACKGROUND - ALVIN TOFFLER'S PROPHETIC "PROSUMER"

In 1980, the book "The Third Wave" was published, by the author Alvin Toffler. The evolution of societies is described in terms of waves, as in Table 1.

Table 1

First Wave	Describes the first agrarian societies that replaced the nomadic hunter-gatherer cultures
Second Wave	Industrial societies based on centralized mass-production, mass-consumption, mass-education, and mass-media
Third Wave	Technology and information powered shift away from bureaucracy towards decentralized power and production

One of the key points presented on in the Third Wave was the fall of the standardized "one-size-fits-all" model of industrial society: mass production would be replaced by mass-customization in such areas as production, media, and education.

Toffler coined the term "Prosumer" (producer + consumer) to describe how the consumers themselves would get involved in the production process. So, these consumers would either act as the designers for large corporations - by giving them detailed personal preferences- or, they would become producers themselves using the power of technology.

What it is to say about Alvin Toffler's prophetic "prosumer": in a post-industrial and postmodern society where everything has been mass produced and rehashed a thousand times before, the new frontier is mass-customization, and who better to generate this specialized content than the consumers themselves?

II. POINT OF DEPARTURE

We were impressed by Davide Casaleggio's video³² where prosumer is featured; this video is also exploring the future of media in a very cool 6-minute story that takes imaginative and educated presumptions about the evolution of the Web and media over the next 50 years. The movie's actors are Google, Amazon.com and Second Life - with Google buying Microsoft, Amazon buying Yahoo, Second Life becoming the dominant virtual world – and they act sustaining in fact the idea of the prosumer and much more, the guessed consequences of this phenomenon. "The core future media concept is the Agav - an Agent-Avatar, which finds information, people, places in the virtual worlds. Here's where it gets interesting. In 2022 Google launches Prometheus, the Agav standard interface, and Amazon creates 'Place' - a company that replicates reality. Then in 2027 Second Life evolves into 'Spirit', where people can become who they want to, via avatars. And then finally, the 'Google overloads' moment - when Prometheus buys Place and Spirit! By 2050 virtual life is the world's biggest market and Google/Prometheus reigns supreme" [1].

This video (see figure 1) does make anyone think about the surprising limits of the Web. Some of his visions are chronologically the following:

- 2011: electronic paper is a mass product.
- 2015: newspapers and digital broadcasting disappear. Google buys Microsoft; Amazon buys Yahoo.
- 2020: Copyright is declared illegal. Devices that replicate the 5 senses are available in the virtual world. Everyone has an Agent Avatar (Agav) that finds information, people and places in virtual worlds.

³² http://www.readwriteweb.com/archives/future_of_media_video_prometeus.php

- 2022: Google/Windows launches Prometheus, the Agav standard interface.
- 2027: SecondLife becomes Spirit, where people share their experiences and feelings. Memory selling becomes normal trading.
- 2050: virtual life is the biggest market on the planet and Prometheus finances space missions to find new places for its clients, the terrestrial avatars.
- Conclusion: Experience is the new reality.



Fig. 1 Future of Media Video

III. THE EMERGENCE OF THE WEB CONTENT PROSUMER

Driven by advances in technology and the evolving environment, the division between the content providers and content consumers is disappearing as the information consumer is also assuming the role of provider. To describe this phenomenon Tim O'Reilly coined the, well known by now, phrase "Web 2.0".

Web 2.0 technologies are already being packaged in a way that enables users not only to receive and to consciously and expressly respond to services, but also generate and distribute new content. Today even the relatively passive act of reception is also recorded as user participation in the world of the Internet that is eventually distilled into anonymous data. The penetration of web services that implicitly process and utilize these data are just another example of the constantly evolving technologies related to the worldwide web.

It is obvious that people are increasingly using the new technologies that make it easy to publish content to the web to share opinions, insights, experiences, and perspectives with each other. For the uninitiated, the applications and web sites that enable this user-generated content are often grouped into the term Social Media. Authentic user content can be generated by anyone and shared through social media and this is with social media tools that people are connecting, building relationships and sharing knowledge.

User-generated content is an essential component of Web 2.0 and one which looks set to endure. Its features are very familiar by now: entertainment based on social networking (MySpace, FaceBook, YouTube) and information needs met via search engines, blogs and wikis. The phenomenal rise of user-generated media is the result of an alternative system of production, one which transcends the constraints of physical capital.

IV. A NEW DIRECTION - SAAS (SOFTWARE AS A SERVICE),

In the Web 1.0 era we have been able to compose and transmit e-mail using software that operates on the personal computer platform, and to create webpages and upload them to Internet host servers using website production software that runs on personal computers.

In contrast, the age of Web 2.0 offers the service functionality of information transmission tools such as web mail, blogs, wikis, etc., all provided by Internet web servers. With these tools and a browser, we can easily access information and services available on the Internet, compose new information, and then immediately publish and distribute it, even without having dedicated software installed on the personal computer, because it has become possible to enjoy the same services provided by a web server. This is called SaaS (Software as a Service), and represents an important and very promising new direction in the future development of the web.

In the world of Web 2.0, we observe both an ascending spiral in the quantity and quality of content and in the quality and diversity of services available to users. Compared to the previous years, the quantity of information and content produced in a Web 2.0 environment, in which anyone can collaborate on the web, has made a remarkable leap. A range of Do-It-Yourself Web-based services now give any user with access the ability to become a producer in a variety of social fields.

V. USER-LED CONTENT CREATION

User-led content creation is transforming the way many organizations develop new products, services and knowledge. Service-based organizations in particular can benefit from leveraging the participation of their audiences, customers and citizens. Today's consumers have much greater input into the creation and dissemination of the products and services they consume [2]. User-generated content in the form of blogs, wikis and social networks pose a challenge to mainstream media's monopoly role in the production, aggregation and distribution of cultural content. Open Source software, virtual worlds and media-sharing communities are at the forefront of new modes of user-led innovation that unsettle established boundaries between producers and consumers. It's very illustrative what Axel Bruns say about this [3]: "Users who participate in the development of open source software, in the collaborative extension and editing of the Wikipedia, in the communal world-building of Second Life, or processes of massively parallelized and decentralized creativity and innovation in myriads of enthusiast communities do no longer produce content, ideas, and knowledge in a way that resembles traditional, industrial modes of production; the outcomes of their work similarly retain only few of the features of conventional products, even though frequently they are able to substitute for the outputs of commercial production processes.

User-led content production is instead built on iterative, evolutionary development models in which often very large communities of participants make a number of usually very small, incremental changes to the established knowledge base, thereby enabling a gradual improvement in quality which—under the right conditions—can nonetheless outpace the speed of product development in the conventional, industrial model".

The creation and sharing of digital media is the most visible part of user-led activities, but other forms of citizen product design met people's desire for personalized consumer goods. Some examples of user designed physical goods are the following: Threadless, a Chicago-based company that solicits t-shirt graphics from its customers, produces the most popular designs, and then sells these via its website³³, John Fluevog's boutique shoemaker provides customers with similar forms of creative engagement through its Open Source

³³ Sipress, Alan (2007). 'T-Shirt Maker's Style, Drawn From Web Users.' *The Washington Post*. 18 June. <http://www.washingtonpost.com/wp-dyn/content/article/2007/06/17/AR2007061701350.html>

Footwear initiative³⁴, Lego Danish toy manufacturer makes recruitments through his Mindstorms User Panel in order to co-create new toy designs and test working prototypes³⁵.

VI. PARTICIPATORY CULTURE - THE SECOND LIFE PHENOMENON

At the end of March this year, Linden Lab's Second Life³⁶ had over 13 million accounts registered. At any given moment at least 38,000 people were logged on. Second Life is a particularly rich example of participatory culture. The development of Second Life can be tracked both as a world and a Web 2.0 phenomenon.

There are two main conversations about Second Life going on. The first involves all the numerous real world companies setting up shop in SL, coupled to mainstream news reports about the world that are, of course, introductory, and focus fairly consistently on the money-making opportunities. This is almost entirely the source of the backlash and hype and also the surface narrative which, while part of the SL phenomenon, does more to occlude the deeper activity going on. By contrast, the second conversation involves all the grassroots user-created content which is merging the world with the broader web, creating a more robust world - in a role playing sense - and evolving it into a platform for real world applications.

Second Life is also described as a 3-D version of the Web because of his rich visual aspect to Internet activities such as socializing, fact finding, and doing business. It is technically not a game, because there is no intrinsic goal to play and the range of possibilities is very wide.

VI.1 Constructivism and constructionism

Constructivist theory is often used to explain why Second Life can be a more engaging experience for students than sitting in a classroom. Jean Piaget's work in developmental psychology suggests that children cannot be merely told what they need to know—they must build knowledge through interacting purposefully with the world.

Constructionism is similar, but emphasizes the social aspect of learning. In *The Cambridge Handbook of Learning Sciences*, educator and game guru Yasmin B. Kafai writes: "Where constructivism places a primacy on the development of individual and isolated knowledge structures, constructionism focuses on the connected nature of knowledge with its personal and social dimensions." [4]

Professor Bill Moseley³⁷ saw how the richness of social interaction in Second Life motivated his students at Pepperdine University³⁸, and has integrated the program into his curriculum (figure 2).

³⁴ http://www.fluevog.com/files_2/os-1.html

³⁵ Koerner, Brendan I. (2006). 'Geeks in Toyland.' *WIRED*. Issue 14.02. February. <http://www.wired.com/wired/archive/14.02/lego.html>

³⁶ <http://secondlife.com>

³⁷ <http://www.linkedin.com/in/wlmoseley>

³⁸ <http://www.pepperdine.edu/pr/news/2007/january.htm>



Figure 2 Second Life's unstructured atmosphere and wide-open spaces where student creativity can grow and flourish are two of the reasons Pepperdine University Professor Bill Moseley integrated the program into his curriculum. However, says Moseley (who created the graphic above), the virtual environment cannot replace curriculum, and assessing what students have learned remains a challenge.

VI.II Programming and writing code

In order to make objects dynamic and interactive, participants have to write scripts, which are sections of code in the proprietary Second Life programming language. These sections of code attach to objects and modify their behavior. For example, someone can have a cloud of butterflies surrounding his avatar by picking up a free butterfly texture and writing a few lines of code that tell them where to appear and what path to take.

There is a thriving, informal online learning community in which users post free textures and scripts on their blogs, contribute to tutorials on the Second Life Wiki³⁹, and host classes in-world to teach the fine points of scripting.

The simplicity and power of the scripting language enables students to make tangible progress (for example one student used scripts to make a dynamic 3-D hat that can tell a joke), so the programming class can really have a lot of success.

VI. III Resources for technical education

I've found very interesting these resources for technical education⁴⁰ that refer to Second Life education projects for teaching subjects such as physics, electrical engineering, computer science and programming, game design and theory, analytical geometry, and more general popular science. The conclusion consists in the fact that multiples learning channels are better than one, and working together is better than working alone. Students can benefit from the community of educators who connect through blogs, newsletters, e-mail lists, bulletin boards, and online events. It is recommended to join the Second Life Education mailing list as a first step, or to take a look at the Second Life Education Wiki at www.simteach.com.

³⁹ http://wiki.secondlife.com/wiki/Main_Page

⁴⁰ http://simteach.com/wiki/index.php?title=Resources_for_Technical_Education

CONCLUSION

Without a doubt, the era of the Prosumer is well under way. User-generated niche content is gaining a larger percentage of viewership and big corporations are taking notice. What is left to be seen is which forms of contribution will eventually be favored and whether the power tilt in the favor of the individual.

The popularity and sophistication of online worlds make it easy to believe predictions saying that by 2011, 80 percent of active Internet users will participate in virtual environments. More than that, online worlds will soon join television, the Internet, and other emerging technologies in the savvy educator's ever-growing toolkit.

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