

Customers working for customers in user-generated Web 2.0 services - The community of producing customers and the organization

Heidemarie Hanekop, SOFI Goettingen, Germany

The development of Web 2.0 technologies has given a powerful new impetus to the growing trend of customers participating in the creation of services (Rieder and Voss 2010, Beyreuter et al. 2012, Kleemann et al. 2012, Benkler 2006). Not only does the Web enable participation of a large number of customers worldwide, it has also stimulated the development of the new type of service that is generated when customers work for other customers. User-generated Web 2.0 services are a new mode of production and consumption with far-reaching implications for consumer roles and for the relationships between organizations and consumers (Wittke and Hanekop 2011). Not only do customers carry out the major part of the work; they also appear as a collective actor in the service triad for the first time. We may now be witnessing another fundamental change of the rules of the game.

This argument proceeds in four steps. First, the basic characteristics of user-generated Web 2.0 services are illustrated based on empirical studies of two successful platforms, the Garmin user forum and TripAdvisor (Hanekop and Wittke 2012). We studied two large, user-generated service platforms to find out how customers successfully create services for other customers. These two Web 2.0 forums represent two different kinds of service constellations: The user forum maintained by Garmin, a leading manufacturer of navigation devices, supports users of these devices. TripAdvisor is a travel service site maintained by an intermediary service provider, where customers review hotels, restaurants and locations they have visited. Both constellations are widespread and rapidly growing. In both cases customers – not organizations or firms – jointly create the main components of a unique kind of service that could not be created by an organization and its employees. In the second paragraph I compare this new kind of service to conventional services. I argue that customers working for customers leads to a paradigm shift of service-production and a new form of co-production of services. But this raises some new questions, which I discuss in the third section: Why do customers work for other customers, voluntarily and often without direct compensation? How can sustainable services be built on the volatile willingness of customers to make contributions that support others? And finally, how can this new

type of service work? To answer these questions, I analyze the core mechanisms by which this new type of Web 2.0 service functions. In the final section, some conclusions are drawn and **implications** for the relationship between the organization and the producing customers are discussed. In contrast to the character of the individual consumer in market-based service relations, a new character makes its appearance: **the consumer as a collective actor**. The fact that consumers can create valuable services when organized as a collective actor presents a major new challenge for organizations. Those organizations that attempt to set up and manage user-generated Web 2.0 platforms must comprehend and learn to adapt to the new, external logic of collective action governing customers' collective behaviour, including most importantly the rules that enable customers to act collectively in the first place. The new service triad consists of the collective of customers, the organization and their employees.

1. User-generated Web 2.0 platforms: A new kind of service

The phenomenon of user-generated services on the web is widespread and steadily growing. Customers who have purchased a specific device, play a certain sport, or have traveled to a particular area report their experiences in a topic-specific user "community" or user forum and, in so doing, support other customers and users. They share their experience and specific knowledge gained from usage of a certain product or service publicly on a website that is managed by the firm producing the product or service. This leads to a particular quality of the service, in the sense of what type of service is actually being provided.

1.1 New type of service based on customer experience and knowledge

User-generated services enable a new way to provide customer support: based on the knowledge of users who have experience with this particular service. It has been pointed out in the literature that users do have a very special experience and often expert knowledge, which qualifies them to innovate products and services (Open Innovation, Chesbrough 2003, 2006, 2011). User's specific knowledge grew out of their experience, particular situation, familiarity with a certain place, and from their particular interest in a given topic (Piller, Ihl and Vossen 2011). Eric von Hippel postulate a new model of "user-driven" innovation and production processes, where users are to a certain extent the "better", more competent producers because they

know from their own experience exactly what other users want; and users “expect to benefit from using a product or service, while manufacturers, by contrast, expect to benefit from selling it” (von Hippel 2005:3). The authors point out the particular ability of users to innovate based on user knowledge. But – as I argue – this knowledge gives users an exceptional capability to support others and to provide other customers with services. It is based on authentic personal experience, applies to particular situations, entails unique familiarity with a certain place, and/or draws from the activities of numerous customers worldwide. Hence, user-generated service platforms thrive on the fact that specific user knowledge and experience is made available and utilizable by customers for other customers. A critical precondition of this new kind of service is that large numbers of customer’s and users are sharing their experience and knowledge publicly on the web. Two cases are presented to illustrate this new kind of service.

The first case is the *user forum of Garmin*, a leading manufacturer of navigation devices, where users support others users who ask for help with a certain device from Garmin. Intense users of the same device gain very specific knowledge about using it. They often have similar needs, pursue the same activities, and so the forum is also a platform on which they jointly solve shared problems. The basic concept of the *Garmin Forum* is spelled out in the first rule of forum use: ‘This forum is first and foremost to be used for users’ questions and for the exchange of information regarding the use of Garmin products.’ The forum is for Garmin customers who use their GPS devices in outdoor activities (e.g. motorcycle riding, cycling, trekking, mountain climbing) or in their work (usually for traffic navigation). Regular users not only have specific knowledge about the devices, but are also familiar with the particular needs and problems of users who have the same hobbies or enjoy the same outdoor activities as themselves. The Garmin forum is a platform on which they can converse with each other about experiences, problems and solutions. The same kinds of exchange take place offline as well, whether among friends and acquaintances or at work, but in the online forum, the number of people reached by a given discussion is exponentially higher. The more people involved in the discussion, the greater the likelihood of finding another user whose experiences are similar to one’s own, among them perhaps one who can help solve a problem. Many members of the user community spend a lot of time online and check the forum frequently for new posts, though most of them only rarely contribute.

In the case of *TripAdvisor*, my second example, the website provider is an intermediate organization that provides authentic user reviews from travellers who have actually been to the places they write about, information that previously could have been gained only rarely, for example through personal conversations with travellers. The goal of this web-based service is to collect neutral information – both positive and negative – from users and make it available without censorship and without comment. The advantage over information from travel businesses is that negative points are not glossed over, criticism is not sugar-coated (or left out) to serve the commercial interests of the travel industry. Only spontaneity, authenticity, and truthfulness count. Individual contributions may address only one person's travel experience, but the sum of user posts combined with sophisticated search functions yield a scope of service that cannot be matched by a single travel agent. The attractiveness of the website stems from the very fact that user contributions are not spurred by market-driven intervention or monetary incentives, but rather solely by the shared needs and collective goals of the user community. The specific quality of these user-generated travel reports lies in learning from others about places that one has not visited (e.g., a hotel in another town). Everyday common sense is what counts - no special expertise is required (as it is in the case of the Garmin user forum). Individual contributions may address a very specialized aspect of travel or a particular journey, but the sum of the many user posts combined with sophisticated search and research functions yields a scope and intensity of service which one-to-one consulting on a hotline or with a travel agency employee cannot equal.

As these examples show, a wide range of particular user knowledge and user perspectives is activated with user-generated services. At the same time the kinds of customer knowledge needed to make a website useful varies from site to site. The Garmin forum bundles specialized bits of technical knowledge; TripAdvisor bundles travel reports. But in both cases the attractiveness and specific quality of the service depend on authentic user knowledge, which other customers trust and value more than the information given by the firm or its employees. This leads to a far-reaching shift of tasks from the firm or its employees to the customers, who produce the most important part of the service.

1.2 New type of service based on large numbers of publicly available customer contributions

On the one hand the new type of service provided by user-generated websites arises from particular knowledge of customers, who use it in supporting other customers. On the other hand such a service requires large numbers of user contributions to be useful. The more contributions and contributors with different experiences and specific knowledge participate, the better the support with specific problems of the customers. The quality of the service is determined not by the quality of the individual contributions, but rather by the large number of contributions that come from a large number of different people, adding up to an exceptionally broad range of experience and knowledge. The particular attractiveness of Web 2.0 services results from a wide range of user experience and the diversity of knowledge of many heterogeneous customers.

The second characteristic of the new kind of service therefore is the large scale of participation. As of May 2013, at the time of writing, the English-language *Garmin Forum* (<https://forums.garmin.com>), for example, has about 16.000 active (registered) users and 177,000 posts in 36,000 threads. The German *Garmin Forum* (<https://forum.garmin.de>) also has 16,000 active (registered) users with another 132,000 user posts in 17,000 threads. A total of nearly fifty thousand threads on the two websites represents roughly the same number of user questions, which have quite likely already been answered within the forum – or, if not, then at least the forum has informed the manufacturer of a problem so the company can address it. Generally, every question is taken up for discussion immediately (within at most a few hours) among the users. This rapidity of response is another advantage of the large number of users, of which hundreds may be on line at any given time.

Posts in the Garmin user forum consist of questions and answers. When a user has a problem with a Garmin device, he or she can post a question explaining the problem and ask other users for help. The topics range from absolute beginners' questions to highly specific, even expert-level questions. All questions are allowed, and anyone can post. There are no formal limitations; all that is asked of users is that they register before writing. The answers are often quite brief; most no more than a few lines. Frequently a discussion develops between the one asking and those responding, continuing until the problem is solved.

Anyone can join in the discussion, and each new user is publicly welcomed to the website. Participation is made very easy, and those who post frequently are given a user profile which lists their contributions and provides links to them.

The fact that the questions and answers are publicly and permanently available is crucial for the usefulness and efficiency of the service provided by the user forum. Even interactions that involve just a few parties can benefit a large number of users over a long period of time. In other words, the help provided by this user-generated service is not limited to the person who asked the question; the number of hits per thread as documented in the Garmin forum indicates that there are often hundreds of other users reading these discussions and solutions. Thus a huge reservoir of problem descriptions and solutions is created, where users can search for answers any time and without restriction.

The fact that there are so many contributions is due not only to the large number of contributors, but also to the accumulation of threads over time on the website. Unlike the information provided in one-on-one consultations between a service employee and a customer, these questions and answers remain available to all and sundry over the long term. Other users who later have the same problems can find the solution directly on the website. It is not unusual to find that a thread addressing a commonly occurring problem has been read by several thousand users.

1.3 A new mode of service production – services as a common good

The openness and availability of the many contributions result in a completely new type of production process. Customer support services here are highly decentralized, with a high division of labor based on the very large number of small and specialized contributions. This is collaboration on a very large scale. Although those contributors are autonomous and their activities are decentralized, they produce complex, sophisticated and competitive products and services, employing an elaborate division of work in a highly efficient process.

But this new mode of service production requires openness and transparency of all the contributions on the website. Therefore this service is freely accessible as a common good or community asset. Both examples demonstrate the openness of such web platforms, imbuing the respective services with the character of public goods. The information they offer is freely accessible, and anyone can contribute.

What is surprising is that these services, which are common goods, are provided by commercial companies such as Garmin and TripAdvisor and many others. The two most famous examples of user-generated services on the internet, open source software development and Wikipedia, are produced and managed exclusively by user communities. Operating a large, successful web platform, however, requires sophisticated infrastructure and well-organized management. This often is the task of an organization or firm. But why do firms operate and provide Web 2.0 services that are a common good?

1.3 The new role of the firm: provider of user-generated Web 2.0 services

In contrast to Wikipedia and other community based, user-generated websites, user-generated services on Web 2.0 revolve around a commercial product or service, whereby the firm involved runs the web platform and a relationship exists between customers and the firm. Garmin, for example, is both the provider of the user forum and at the same time the manufacturer of the devices supported by it. The case of TripAdvisor (which follows a fairly common Web 2.0 format, too) is more complex, but it is also centered around a commercial service. TripAdvisor is an intermediate service provider, through which travelers share their experiences involving hotels, restaurants, or other providers of travel services. Here the commercial services supported by the user-generated website content are provided by third parties, such as hotels and restaurants. The business case of TripAdvisor relies not on a separate support and marketing channel for own products, but on advertising on the website. In both constellations, however, user-generated support for other users is initiated and organized by a firm, not by the users themselves. All in all, the number of user communities centered around products and services is constantly growing, and a very broad spectrum of different operator-user constellations is emerging.

As operators of sites for user-generated, web-based services, firms play a role that is clearly distinguished from the conventional role of a service provider. The operator role in our examples consists in offering opportunities for customers to advise or support other customers, rather than having the employees of the firm do this. But it also includes the task of initiating and coordinating the contributions from customers.

The critical point in the operator role is that the commercial interests of the firms might conflict with the interests of customers in the publication of a critical, unbiased user opinion. After all, the extensive and unbiased posts from customers are not

actually the firms' objective, but are rather a means toward the goal of value creation. Thus firms might be accused of using their administrator role to censor user contributions, in which case a fundamental legitimacy problem arises. How the operator and moderator roles are played is thus a sensitive dimension in the success or failure of the platform.

Value Creation Strategies of the Firms

User-generated content at the Garmin and TripAdvisor forums is a collective service provided by customers, for customers. These voluntary, unremunerated contributions from customers cannot be directly marketed by firms. At the same time, the operation of a large, successful forum is no small expense for the firm. From the perspective of the firms it is important that such user forums be compatible with value creation strategies in spite of their openness; in other words, the firm must have a value creation strategy that does not require commodification of the user contributions.

The Garmin forum and TripAdvisor are examples of two different value creation strategies, both of which are in widespread use. Garmin's user forum presents an additional support for their devices, available free of charge. The objective is the better marketing of the firm's own products. The use of these highly specialized, complex devices is demanding, in particular when used professionally or in sports. The advantage of the user forum lies in the high degree of specialization of the information offered in the device-specific forums, the collective expertise of masses of users, the opportunity to post questions, and the rapidity with which satisfactory solutions are interactively found. The strategic advantages for Garmin include the improved customer support, community-based marketing, and also the potential for development and improvement of products through following up on criticism and suggestions from users (open innovation in the sense of Chesbrough 2006, 2011, and Piller et al., 2006, 2011).

By contrast, TripAdvisor is a commercial travel website with a value creation strategy aimed at reaping advertising revenue. The majority of the advertisers on TripAdvisor are firms in the travel sector. The highly successful strategy of TripAdvisor is based on setting themselves up as an intermediary, independent of travel businesses, that presents content-based reviews while at the same time generating their revenues through advertising from those very businesses. From the user's point of view, it can be assumed that TripAdvisor's independence from the travel businesses reviewed

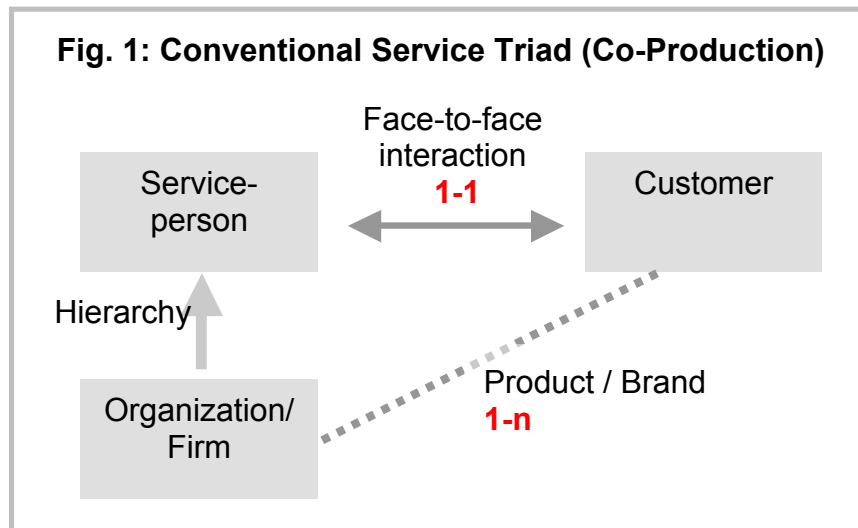
probably enhances the credibility of the content offered. Interestingly, some – if not all – of the same people who write reviews on the TripAdvisor site are sure to be customers of the travel businesses that advertise on TripAdvisor. At the same time, TripAdvisor generates its income from advertising contracts with these very travel businesses. Balancing this contradiction is a tricky business, but also a highly attractive strategy for value creation based on advertising revenue.

The characteristics described above are causing a paradigm shift in co-production, as I argue in the following section.

2. Paradigm shift in service production and co-production

Customers as co-producers are also involved in the creation of the service in conventional service constellations (Gross/Badura 1977, Gross 1983). In travel services, for example, customers must be involved, because without their co-presence the trip does not take place. Of course this also applies to personal services such as hairdressing and elder care, in which customers may be more or less passive but are very much involved (in the sense of being affected). The paradigm of co-production also holds that customers participate in the production of services that they use themselves. It is taken for granted that the willingness to participate is driven by a self-interest in using the service and, from the perspective of the service provider, specifying the customer's needs is seen as a generic task of customer co-production.

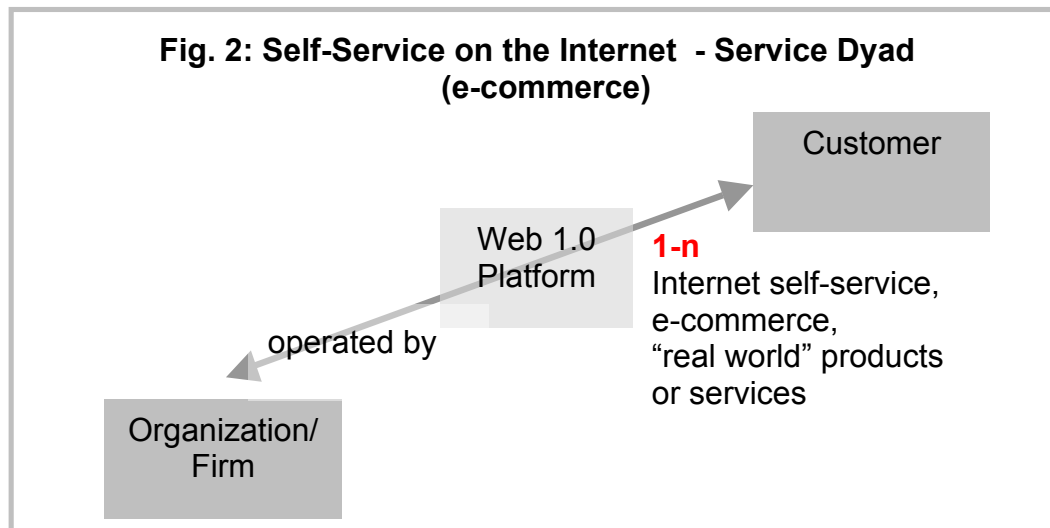
The conventional service relationship (Gutek, 2000) can be described as a triad, where the organization defines what the service or product is and plans the process of production. The persons who provide the service for customers are employees of the firm and subject to its directions. On the other hand service persons have to address customers wishes and meet their needs. In conventional service constellations the customer service is provided in face-to-face interaction between a serviceperson from the firm and an individual customer.



A first paradigm shift was seen in the second half of the 19th century with the advent of self-service constellations in which the customer may take on a significant part of the production of standardized products or services in return for a lower price, for example, or for a larger selection of variants or design options in (industrially pre-fabricated) mass-use products (Ritzer 1996). The service constellation of self-services can be described as a dyad (Guttek 2000), with no serviceperson on the frontline and no personal interaction with the customer. Co-production here means that the customers self select and often finalize the product or service she or he needs. In self-services, however, as in conventional service constellations, customers participate for their own benefit and not for that of other customers. Also as in conventional services, this takes place in a location controlled by the firm - and in fact there is often a person from the firm involved, though this person is not tasked with serving customers.

Online services on the Internet can be seen as a new form of self service (Hanekop and Wittke 2006 and 2010; Voss and Rieder 2005; Rieder and Voss 2010). The rapid spread of online shopping, online banking and all the other e-commerce services available on the Internet have radically increased the proportion of self-service in all areas of service, and thus also the level of active participation by customers. These services represent a new level of rationalization which does away not only with the serviceperson at the customer interface, but also with the location at which the customers serve themselves. Customers communicate over the Internet with the providing firm's IT system, rather than with its personnel (cf. Guttek 2000;

Hanekop/Wittke 2006). Online self-service on the Internet means a radicalization of self-service, but is not a new type of service. Just as in conventional self-service, a market-brokered relationship is formed between the firm and an individual customer, (Figure 2) who purchases a product or service for his or her own use. The customer thus participates in the selection, the configuration, the purchase process or the production of the product for his or her own use, but not for third parties.



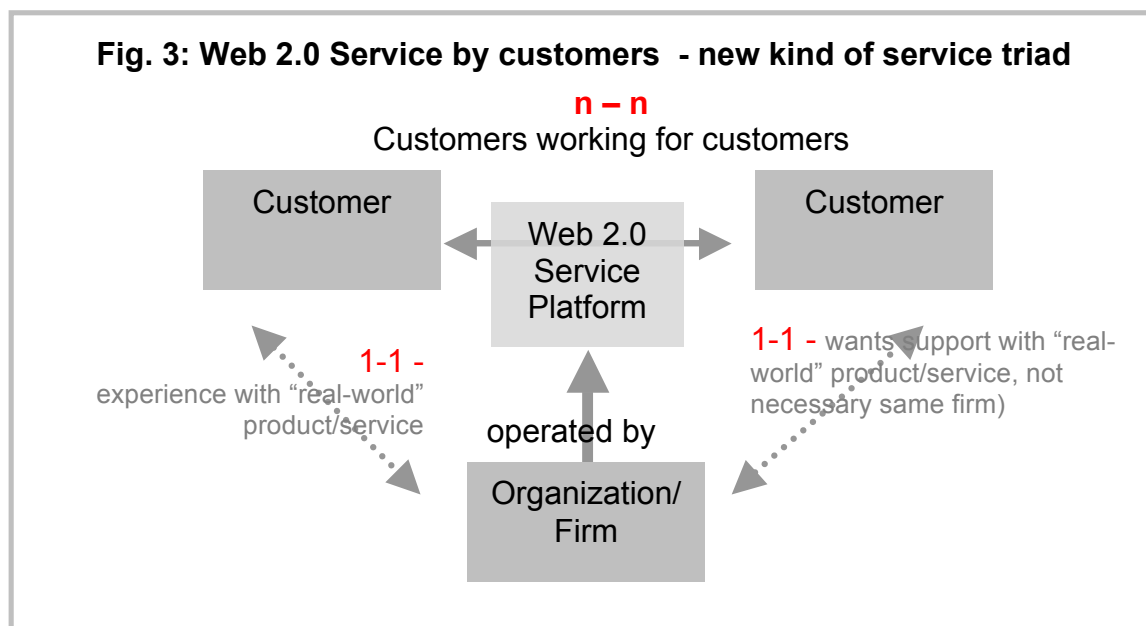
Although the customer's tasks are more flexible than in conventional self-service, the task structure is dictated by the firm's web platform and tasks are integrated in the firm's production process. *How* the customer participates is decided not by the customer but by the firm, with its IT system or website as intermediary. The service is standardized, even while the customer generally has quite a broad range of choices in selecting or configuring the product best suited to his or her requirements (i.e., a high degree of personalization). But all customer activities on the shopping or banking website are highly scripted; customers interact with the IT system of the firm, which is based on IT algorithms and not on human understanding.

The (new) service triad of user-generated Web 2.0 services

With user-generated Web 2.0 services, a new model of the service triad arises, in which the person who serves the customer is not an employee of the firm, but another customer (Fig. 3). Although the service triad re-appears (customers can ask and receive answers and advice from humans), the relationship between the persons who support the customers and the firm changes radically. In conventional services there is a hierarchical relationship between the firm and the employed service person. When a customer voluntarily helps another customer by sharing her experience and

know-how, the firm cannot tell this customer what to contribute, nor how and when. At the same time the customer who looks on the web for help and recommendations gets these services for free on the website, although the quality of the service depends on the willingness of other customers to contribute. And as I showed above, the chance to find the certain support he or she needs at just the right time increases with the number of contributions and contributors. So, if the firm wants customers to do the service for customers, the firm has to encourage and motivate large numbers of customers to work for others. This task is quite different from the tasks firms usually perform when they design, produce and manage a service operated by employees.

Another consequence of customers working for customers is the way it alters the relationship between firms and customers. Conventional co-production typically involves a one-to-one relationship between company and customer: a relationship of exchange and cooperation, with the supplier and its personnel on one side and the individual customer on the other. User-generated Web-services provided by firms grow out of cooperation between a large number of users on one side and - in sharp contrast to community-based services without a firm – a certain form of cooperation with the company on the other (Wittke and Hanekop, 2011). Collaboration is found between customers who are working for one another, but there is also a relationship between the user community as a whole and the company (Fig. 3).



In the following, we examine both the implications of this new type of service and the prerequisites for this new type of Web 2.0 production model.

Just as the relationship between customers and the firm changes, so too does the conventional paradigm of co-production, because they co-produce not only their own service but also service *for other customers* (Hanekop and Wittke 2012; Rieder and Voss 2010).

The particular kind and the unique quality and attractiveness of the customer support offered by user-generated websites implies a fundamental shift of the main task of production, from the firm and its employees to the customers. The *division of labour between consumers and firms is turned upside down*. Customers, not firms or employees, contribute most of the service information. This stands in stark contrast to the division of labour typical of conventional supplier-customer relationships. Within the Web 2.0 services, the firm's task is more or less reduced to organizing and moderating the web platform. Rather than being merely the recipients of services, customers are collectively elevated to the role of core producer. They work for their fellow customers – and this is how customers become producers.

But this raises two questions that do not arise in connection with conventional service, which I address in the following section. The first question is, *why* do customers work for other customers? My argument (below) is that the new type of user-generated service must deal with typical 'collective action' problems, first because the willingness of a given customer to contribute is dependent on whether other customers are contributing as well, and second because Web 2.0 services are freely accessible thus it can be termed a collective or public good.

3. The critical point of user-generated services: the advantage of collective action

From a sociological perspective, the new type of user-generated service is precarious and volatile. Of the vast numbers of Web 2.0 sites that have appeared on the Internet, only very few user-generated Web 2.0 platforms have succeeded in reaching a critical mass of contributions. The critical point here, as I argue with reference to Benkler (2002, 2006, 2011) and others, is the production of user-generated services that is emerging on the Internet as a new form of collective action. The surprising and somewhat unexpected aspect is that this collective action

is promoted and organized by a commercial firm. My argument that firms as providers of user-generated Web 2.0 services have to deal with collective action problems is presented in two stages. First I explain the specific collective action problem of user-generated Web 2.0 services. Then I examine how commercial firms are organizing the collective action of customers.

What is the collective action dilemma of user-generated Web 2.0 services?

Within user-generated services, customers are working for customers voluntarily and usually without monetary compensation; at the same time those services are freely accessible on the web as a common good (even if the providing firm generates revenue from this activity). This raises a specific collective action problem, resulting from the fact that customers who contribute actively cannot be sure that they will get anything back; moreover, before a certain critical mass of contributions are made by others the very existence or success of a given Web 2.0 platform is precarious. If the platform fails their contributions turn out to be useless. Thus, to contribute leads to a situation of uncertainty, in particular when a service platform has not reached the critical mass of contributions that is necessary for sufficient service quality. Customers who actively participate or contribute before there is a sufficient service available act within a typical collective action dilemma, that has to be socially embedded.

Referring once again to Ostrom (Ostrom 1990), this constitutes a typical situation in which collective action is the best solution, but hardly probable. Ostrom analyzed preconditions that could enable collective action. In her well-known study, 'The Governance of the Commons', Elinor Ostrom (1990) showed that collective action in large groups can be fostered through collective self-organization. She discusses how self-organization of joint action, in which activities are organized by participants in accordance with collective goals, processes and rules, can prove to be an efficient form of coordination, indeed more efficient than coordination through hierarchy. According to Ostrom, collective self-organization is based on the institutionalization of shared goals, processes and rules for the production of collective goods (Ostrom, 1990). Indeed, Ostrom's principles of collective self-organization seems to be transferable to user-generated Web 2.0-based services. However, the self-organization of users requires specific coordination mechanisms, rules and processes to integrate large numbers of contributions from autonomous contributors

in a collaborative production process. Below I argue in detail that in the (successful) cases of Garmin and TripAdvisor the design of user-generated platforms considers basic mechanisms of collective self-organization and how this works.

But first I'll bring in an argument which Benkler (Benkler 2002, 2006, 2012) has made prominent (as well as many others, e.g. Axel Bruns 20112007; for OSS: Weber 2004, O'Mahony 2006) that the Web enables a new culture of sharing and collective action. The culture of sharing is driven by the fact that Web technologies facilitate prosumption and joint production of users in many ways (Benkler 2006). He points out that the Internet has enabled individuals to do more for and by themselves (Benkler 2006:8)¹. The means of production required for innovations and knowledge-based production processes (computers, Internet access, software) are widely available today. Many tasks that formerly required a great deal of cost-intensive equipment – generally only available within companies – can now be carried out easily by individuals thanks to the Internet and inexpensive information technology. As a result, distributed production and extensive division of labor are no longer restricted to bureaucratic organizations. The economic effects of the digital “networked information economy” enable the spread of non-market production, a broad culture of “sharing” and the involvement of very large numbers of contributors (Benkler 2006:29).

The Internet facilitates collective action and makes it much easier to produce common goods in a joint effort. New opportunities for collective action grow out of the fact that “the networked environment makes possible a new modality of organizing production: radically decentralized, collaborative, and nonproprietary; based on sharing resources and outputs among widely distributed, loosely connected individuals who cooperate with each other without relying on either market signals or managerial commands. This is what I call ‘commons-based peer production’.” (Benkler 2006:60).

¹ Benkler 2006, p 6: “The networked information economy improves the practical capacities of individuals along three dimensions: (1) it improves their capacity to do more for and by themselves; (2) it enhances their capacity to do more in loose commonality with others, without being constrained to organize their relationship through a price system or in traditional hierarchical models of social and economic organization; and (3) it improves the capacity of individuals to do more in formal organizations that operate outside the market sphere.”

Within Web communities users produce services in a joint effort and the contributions they make, can be used by everybody on the web like public goods. Specific for collective action on the web is, that these digital public goods can be used by many people. But first these digital goods have to be produced collectively, because they are not naturally occurring resources - as in the examples of Ostrom. This is the typical "critical mass problem" of collaborative projects (Wittke and Hanekop 2011). The critical point of collective action on the web is the absence of obligations – nobody is obligated to make any contribution, even if she or he uses the public service on the website. This is quite different from conventional (offline) communities, where membership is bound up with rights and duties. In contrast, web-communities work without obligations, volatile and frequently changing membership and weak ties. Therefore reciprocity is not ensured by obligations, since all contributions are to be made voluntarily. How does that work? The answer is twofold: it works when making contributions is fun and easy; and, it works when the base of potential contributors is huge and there is always someone there to answer a question or to give specific information or tip. IT-based tools and the openness of the platform facilitate the emergence of web communities. The volatility of membership in web-communities is compensated by the openness of those communities and the large number of users and contributors. Or in other words: reciprocity is not based on individual duties, but on the size of the user community and their activity on the web.

Collective action on the web works – as the famous examples of wikipedia and a lot of Open Source Software projects shows - if it is embedded in the social structure of a community that evolves in the process of collaboration and interaction. But those communities are different from conventional communities, O'Mahony and Lakhani (2011) defines "community as "a voluntary collection of actors whose interests overlap and whose actions are partially influenced by this perception. ...A strength of this definition is that it includes both relational and instrumental motivations and acknowledges that, like any social structure, communities can both constrain and enable individual action.

Benkler also emphasizes that self-organization and autonomy on the web enables or stabilizes collective action within web communities. we argue (Wittke and Hanekop 2011, Hanekop and Wittke 2012) that very much in line with Ostrom's argument, user collaboration can be seen as a form of collective self-organization. Coordination mechanisms are established and problems of opportunism and free riding are solved

by institutionalizing rules and norms that are transparent and accepted within the community of users. Shared goals and rules for contributions, here, are related to the topic of the platform, service or product. Since products and contributions on web platforms are public and freely accessible on the web, the collaboration process is transparent for everybody. (Benkler 2002 and 2006, Gläser 2007, Pentzold 2010, Reagle 2010). The openness of the webplatform and the collaborative product is a central prerequisite for the ability of these actors to self-coordinate their actions. They integrate their contributions by “mutual adjustment of individual actions. (Gläser 2007:171). While all information relevant for participation is available to everyone at any time on the Web, cooperation and self-coordination among actors is possible.

Coordination takes place by general rules for contributing, that are implemented on web platforms, as well as in collaboration tools such as Wikis or CMS, that provide the workspace in which numerous and globally distributed actors can coordinate their contributions as if they were watching each other work. Rules and standardized routines for contributions also facilitate frequent changes of participants. Based on such web-tools web-communities can jointly produce large products, even if the volatility of contributors is high, direct personal relations are lacking and ties are weak. So, it is not necessary to rely on a stable community in order to work collaboratively. Transparency not only allows for self-coordination but also for easy monitoring of the contributions of others. Based on this visibility a social structure can emerge, based on differences in scale and relevance of contributions. (Stegbauer 2011; O’Mahony 2006, Scacchi 2006, Gläser 2007, Weber 2004).

But the examples of Benkler and others (e.g. von Hippel in “Democratising Innovation”) are the famous community-driven and community-organized cases such as Wikipedia and Open Source Software. Is this also true for the service web platforms that are organized by commercial firms? In the case of user-generated Web 2.0 platforms operated by a firm, the well-known problems of collective action seems to be more complicated due to the fact that the goals and rules of the interaction are predetermined by the firm rather than the customers themselves. And firms normally do not care about autonomy and self-organization of the people who produce the goods or services they sell; rather, they are accustomed to organizing and planning the process of production hierarchically, from the top down. What are the preconditions owing to this difference that have to be considered by those firms that organize user-generated web-services? How do firms apply or adapt these

mechanisms to attract contributions? Do firms respect the autonomy of users to choose for themselves what to do, and to say what they think?

4. Collective action of customers and the Web 2.0 strategy of the firm

Firms rely on customers working for customers when they want to provide user-generated services. Without a permanent flow of voluntary contributions, the value of the firm's web platform would rapidly diminish to naught. It is crucial for the relationship between firms and their customers is the fact that it is framed by the collective behaviour of customers.

As the service offered is not produced by the firm but rather by the customers, it is essential for the functioning and success of the platform that customers see themselves as part of a certain user community and therefore are willing to contribute for community's sake. If firms try to establish, operate and manage these webplatforms, ironically here it is the task of the firm that operate the website to establish and organize the customers' sharing of their knowledge and experiences with other customers, in other words: to organize collective action. As operators of user-generated platforms, firms play a role that is clearly distinct from the conventional role of a service provider.

My thesis in the following is that the firms in our examples, do not act solely in its own commercial interests and goals, but rather adapt themselves to the collective logic, to the goals, norms and rules of the customer community, for the purpose of encouraging participation in co-production by customers for other customers. To enable their willingness to participate, the firm's strategy to operate the platform has to be consistent with goals and rules of the community of customers, since those goals and rules are prerequisite for voluntary and independent participation by customers working for customers.

The firm's role: initiating and operating a user-generated Web 2.0 service platform

The firm's role in user-generated web services includes initiating a customer community, implementing a platform with an appropriate workflow for contributions from large numbers of customers and users, administration of the website and

moderation of the community, as well as setting rules that are accepted and adhered to.

Firms have to adopt the logic of their customer community in several ways:

1. The topic of the web service has to match the goals of the user community and the interest of customers: firms are compelled to consider and even discover goals that could be shared by a large number of customers, and rules that customers would like to follow; firms declare or define goals that could be shared goals of the community;
2. The workflow implemented for contributions of customers cannot be planned in advance by the firm; instead the firm must give leeway for many autonomous contributions of users: the firm has to adopt the principles of self-organization of tasks performed by users. They may not define what the volunteers have to contribute, but allow contributors to define by themselves whether they contribute, what to contribute and when.
3. Coordination and administration of user-generated web services does not function by order; rather by rules governing contributions of customers. such rules have to be formulated and implemented by the firm, but accepted in the community of the customers. Prototypes of such set of rules are taken from community-organized Web 2.0 platforms.

1. Build a community of customers and match their goals

I will exemplify this task of the provider of a user-generated service using the Garmin user forum and TripAdvisor. They succeed in attracting large numbers of user contributions because the interest of users in supporting one another is the central point of the website. The shared goal of customers working for customers in the case of the Garmin forum is helping each other with problems encountered using Garmin devices. The expectation that this goal is realizable through collective action is lent credence by the clearly visible record of website threads and discussions in which many similar problems had been solved. In the case of TripAdvisor, the shared goal is to create and disseminate authentic information about hotels, restaurants, or locations from travellers who were actually there and who tell about their experiences, including negative experiences, truthfully.

Generally speaking, user-generated web platform enables collective action of users, first, by making it possible for users to share their experiences and their knowledge with other users with an unprecedented degree of simplicity and immediacy. Second, by bringing together large numbers of users and consumers worldwide. And third, by providing free access to the web platforms that are open to all and where all contributions are publicly documented. Under these circumstances, collective action can lead to a collective good even if the website is operated by a firm. But the most important condition is instilling a shared goal for customers working for customers, a goal that requires collective action to be achieved but at the same time seems feasible. The challenge is to define a subject of interest that attracts many users.

2. Firms give users leeway to decide for themselves what they want to contribute: firms organize the self-organization of the producing customers

In contrast to the hierarchical relationship between a firm and its employees, customers cannot be ordered to do a certain job; rather they decide by themselves whether they want to help other customers and what exactly they are willing to contribute. Users are free to define the subject and content of their contributions by themselves. So they can realize their own interests, needs and motives. It is important that contributing is fun and that it makes sense from the point of view of the user. But firms give leeway for autonomous decisions of users to varying degrees. One limitation is the topic: the contribution has to be strongly related to the topic of the web platform. Another limitation results from the scripted and formalized manner of participation: users' contributions often are reduced to specific and standardized tasks (e.g. ratings as with Tripadvisor).

3. Coordination and administration of user-generated web services

In order to operate a successful Web 2.0 platform and foster the production of a public good, the firm or organization must propose, implement and maintain a convenient workflow and implement the right kind of rules for customers working for customers. But instead of giving orders, providers of user-generated Web 2.0 platforms implement general rules for contributions. Such rules governing contributions of customers are laid out by the company in its role of web platform operator. The rules comprise coordinating, integrating, structuring, operating and administration of a vast number of autonomous contributions, since//because a

useful service platform should be structured in such a way that users are able to find easily what they are looking for. Furthermore, users want to read contributions that really address the issue of the platform rather than useless contributions that only waste their time.

In our examples, Garmin and TripAdvisor implement processes and define rules for user participation that are to be accepted and followed by contributors. Some of those rules are adapted from the community-based practices of open source or open content projects. A core mechanism for governing user contributions is to define and implement what a legal contribution is and how it has to be written.

The Garmin forum is structured along the lines of product series and particular devices. Obligatory rules help ensure that information on a given problem can be found easily, such as the following:

- 'Please post each contribution in the forum provided for the specific topic.
- 'Please limit each thread to only one topic.
- 'When starting a new thread, please enter a Subject Line that clearly describes the content.
- 'Writing multiple posts on a single topic and posting them in different forums is not allowed.'

These are typical mechanisms by which large numbers of autonomous contributions can be coordinated and automatically integrated. These and similar rules can be found in many Web 2.0 platforms.

Firms also monitor the observance of these rules, and enforce them if need be. The latter is not trivial from the user's point of view, because this aspect of the firm's role could be abused to censor unwanted critical contributions (which would be entirely in line with conventional behavior of firms). Firms in both examples are responsible for control and administration tasks, although they carry them out in different ways.

The Garmin forum, for example, has rules that help maintain content-based structuring, such as the instruction to check for existing discussions on one's topic of interest before opening a new discussion thread on that topic. A similar rule is familiar from Wikipedia, where it is not permitted to publish a second article on a topic that already exists. These rules for content-based coordination are very important for the quality of the service offered by the platform. Other rules regulate the type and form of the contribution. Frequently, possible contribution types are implemented in

the collaboration tools provided by the platform technology. In the Garmin forum, for example, this takes the form of threads; at TripAdvisor, of reviews.

Rules for contributors extend to the tone of contributions as well, because irrational or insulting posts have the effect of discouraging or even deterring contributions and impair the feeling of community. Of course, not all users of such websites are polite, friendly, competent people. There are always the notorious Egomaniacs, the Complainers, the incompetent Know-it-alls, and others who do not contribute anything to the purpose but regularly annoy others with personal, nonsensical, or otherwise irrelevant contributions. And there are the Fighters, who have little to say about the topic under discussion but make up for it by saying a lot about the people discussing it, in the form of personal insults or other provocations. Because these websites are basically open, this kind of thing always happens in some form or other. In this respect there are also rules which contributors are supposed to follow. Those who do not comply with the rules are given warnings and may in the end be excluded (see the rules mentioned above regulating the Garmin and TripAdvisor forums). The Garmin forum rules, for example, explicitly state that insults, slander, provocation, and sarcasm will not be tolerated.

Administrators are usually employees of the company. They check whether the contributions are relevant, serious, and in keeping with the rules. Administrators have a key position because they function on the one hand as representatives of the firm, while on the other hand they are a part of the online community and need the acceptance of the users. Garmin plays this role pro-actively, while TripAdvisor is more reticent; the activities of the latter are all but invisible. At TripAdvisor, there are no administrators or moderators who get involved personally or take part in discussions (whether there are any at all is, in fact, difficult to tell). In the Garmin forum, by contrast, each subforum is moderated, and the moderators take an active part in debates.

Basically firms enable collective action when they make contributions of users freely available on the web. Firms provide tools for collaboration and making contributions that are open and usable for everybody. Those tools provide transparency of activities – both of other users and of the firm or the firm's staff. Contributions have to be transparent – this is also true for contributions by the firm or its staff. To enable self-organization, firms implement (within those tools) accepted, institutionalized

rules. Since the autonomy and self-organization of contributing customers is crucial for collective web services, the firm cannot do whatever it wants, but must also follow the rules.

But what about the own goals and interests of the organization or firm? How do organizations deal with contradictions between their goals and those of the customers?

Conflicts between goals of the community of customers and the firm

Collective action of users to support other users or to jointly develop improvements of the product or service is on the one hand an advantage for firms and their business; on the other hand it may also be a disadvantage, for example when users make negative assessments, complain about a bad service or product; or when users prefer competitors. The critical point here is that those goals and rules enabling collective action of customers may conflict with goals of the firm. The commercial goals of the firm are not necessarily congruent with those of the customers. In fact, it is much more common that their goals conflict in one way or another, due to the firm's commercial interests. The critical point here is that those goals and rules are to be followed not only by the participating customers but also by the participating firm.

A common conflict arises when firms are confronted with public criticism of customers on the website. Whilst firms as platform operators have the technical means to squelch unwanted contributions, doing so would contradict the goals and rules of the customer community and could shrink usage and contributions. Therefore customers normally expect, that firms abstain from selection or control of contributions on user-generated websites, even if they are negative and bad for the firm. If firms are suspected of deleting critical contributions, willingness of users to contribute tends to be low, and even the usage of such platforms may be negatively affected, too. Customers who share experiences with other customers may not be willing to participate again if the website provider modifies or deletes negative feedback. Thus, even if it lowers their profit, operators of user-generated web platforms must let negative contributions stand.

Thus, how the operator deals with these conflicts, both latently and manifestly, is a sensitive dimension of success for such platforms. If they misunderstand their role or play it ineptly, they can easily cause conflicts and sabotage customers' willingness to participate. This is one of the reasons why success in Web 2.0 services is so elusive,

and but one of many reasons why the transformation of service relations through user-generated services in Web 2.0 will remain an exciting field of research for the foreseeable future.

Conclusions, implications and questions

The new service relationship: The collective customer and the organization

The new service type is characterized by a fundamental shift in the division of labour, where customers produce the core part of the service provided on the firm's website. Firms rely on customers working for customers. Without a permanent flow of voluntary contributions, the value of the firm's web platform would not grow, or would rapidly diminish to naught. Crucial for the relationship between firms and their customers is the fact that it is framed by the collective behaviour of customers. Each customer contributing to the website, gains influence because his experience or critique is visible for everyone. Whilst firms as platform operators have the technical means to squelch unwanted contributions, doing so would contradict the goals and rules of the customer community and this increases the risk of diminishing the essential flow of voluntary contributions of customers.

This can be seen as the entry of a new player: the community of customers, or the "collective customer". And it might indicate a shift of power within the service relation from the organization towards the "collective consumer".

But the role of the organization or firm is also subject to a radical change. As providers of a user-generated service, firms play a role that is clearly distinguishable from the conventional role of a service provider. To establish a successful web service, a firm must initiate and organize the collective behaviour of customers working generously for other customers within the community. Hence, firms must not follow their own goals exclusively. Instead, they should serve the needs, goals and rules of the customer community so as to encourage customers working for customers. If they misunderstand their role or play it ineptly, they can easily cause conflicts and sabotage customers' willingness to participate. Thus, how the operator deals with these conflicts, both latently and manifestly, is a sensitive dimension of success for such platforms and one of the reasons why success in Web 2.0 services is so elusive.

However, the service relation of user-generated web services is characterized by a tension between the new role of the collective customer (or community of customers) on the one hand and the firm as platform provider on the other. The critical point is that the commercial goals of the firm tend to conflict with the goals and rules of the customers. The firm's goal should be to provide good customer support, but to generate added value, rather than as an end in itself. Depending on the respective business case of the webplatform, critique and claims of customers on the web could compromise the commercial output of a firm. So, a firm might use their operative and administrative capacity and power to prevent public claims on the website. The firm as (technical) operator of the website is able to prevent or delete public claims on their website. The problem here is that customers do not have any opposing power or means to control the website operator. The "power" of the collective customer is entirely built on openness and public criticism on the website. To struggle with firms that violate goals and rules of the community is to stay away. Up to now, customers that produce a web-service don't have technical or legal means to control the firm. The "collective customer" seems to be a new figure within the service relationship, bridging production and consumption, but the position and power of the new character is still unclear. Is the collective customer just a paper tiger? This and many other questions are still open. But this is why the transformation of service relationships through user-generated services in Web 2.0 will remain an exciting field of research for the foreseeable future.

References

Benkler, Yochai. "Coase's Penguin, or, Linux and The Nature of the Firm," 112 *Yale Law Journal* 369 (2002).

Benkler, Y. (2006). *The wealth of networks. How social production transforms markets and freedom*. New Haven: Yale University Press.

Benkler, Yochai. *The Penguin and the Leviathan: How Cooperation Triumphs over Self-Interest* (Crown Business 2011).

Beyreuther, Tabea/ Duske, Katrin/ Eismann, Christian/ Hornung, Sabine/ Kleemann, Frank (Hrsg.): *consumers@work. Zum neuen Verhältnis von Unternehmen und Usern im Web 2.0*, Frankfurt/New York: Campus

- Bruns, A. (2008). *Blogs, Wikipedia, Second Life, and beyond: from production to produsage*. New York: Peter Lang Publishing.
- Chesbrough, H., Vanhaverbeke, W., West, J. (2006). *Open innovation: Researching a new paradigm*. Oxford University Press, Oxford.
- Chesbrough, H. (2009). *Open Services Innovation: Rethinking Your Business to Grow and Compete in a New Era*. San Francisco.
- Frenkel, S., Korczynski, M., Shire, K., Tarn, May (1999): *On the front line: Organization of work in the information economy*; Ithaca: Cornell University Press.
- Gross, Peter (1983): *Die Verheißungen der Dienstleistungsgesellschaft*. Opladen: Westdeutscher Verlag.
- Gross, P., B. Badura (1977). *Sozialpolitik und soziale Dienste - Entwurf einer Theorie personenbezogener Dienstleistungen*. In: v. Ferber, C., Kaufmann, F.-X. (1977): *Soziologie und Sozialpolitik (Sonderheft 19 der KZfSS)*. . Opladen, Westdeutscher Verlag: 361-385.
- Gläser, J. (2007). "The social order of Open Source software production." In: Amant, K. and Still, B.: *Handbook of research on open source software: technological, economic and social perspectives*.(pp. 168-182). Hershe, PA: Idea Group Inc.
- Gutek, B. A., T. Welsh (2000). *The Brave New Service Strategy - Aligning Customer Relationships, Market Strategies and Business Structures*. New York, Amacom (American Management Association).
- Hanekop, Heidemarie; Wittke, Volker (2012): *Nutzergenerierte Beratungsplattformen: Neue Formen der Ko-Produktion im Web 2.0*. In: Beyreuther, Tabea; Duske, Katrin; Eismann, Christian; Hornung, Sabine; Kleemann, Frank (Hrsg.): *consumers@work: Zum neuen Verhältnis von Unternehmen und Usern im Web 2.0*. Frankfurt/Main (Campus), S. 212-245
- Heidemarie Hanekop; Volker Wittke (2010): *Kollaboration der Prosumenten. Die vernachlässigte Dimension des Prosuming-Konzepts*. In: Birgit Blättel-Mink, B., Hellmann, K-U. (eds.): *Prosumer Revisited. Zur Aktualität einer Debatte*. pp. 96-113. VS Verlag, Wiesbaden.

Hanekop, Heidemarie; Wittke, Volker (2006): Der Kunde im Internet. In: Jacobsen, Heike; Voswinkel, Stephan: Der Kunde in der Dienstleistungsbeziehung. VS Verlag, Wiesbaden.

Kleemann, Frank/ Eismann, Christian/ Beyreuther, Tabea/ Hornung, Sabine/ Duske, Katrin/ Voß, G. Günter (2012): Unternehmen im Web 2.0. Zur strategischen Integration von Konsumentenleistungen durch Social Media, Frankfurt/New York: Campus.

O'Mahony, S. (2006). "Developing community software in a commodity world." In: Fisher, M. S. and Downey, G.: Frontiers of capital: Ethnographic reflections on the New Economy. Durham: Duke University Press.

O'Mahony, S. and Lakhani, K. 2011. O'Mahony, Siobhan, and Karim R. Lakhani. "Organizations in the Shadow of Communities." In Communities and Organizations. Vol. 33, edited by Christopher Marquis, Michael Lounsbury, and Royston Greenwood, 3 - 36. Research in the Sociology of Organizations, 2011.

Ostrom, E. (1990): Governing the commons. The evolution of institutions for collective action. Cambridge: Cambridge University Press.

Piller, F.; Ihl, C., Vossen, A. (2011). „Customer Co-Creation: Open Innovation with Customers“ In: Wittke, V., Hanekop, H. (eds.): New Forms of Collaborative Innovation and Production on the Internet - An Interdisciplinary Perspective, S. 31 – 61, Universitätsverlag Göttingen.

Rieder, Kerstin/ Voß, G. Günter (2010): The Working Customer - an Emerging New Type of Consumer. In: Journal Psychologie des Alltagshandelns / Psychology of Everyday Activity, Vol. 3/ No. 2, 2-10.

Ritzer, George (1996): The McDonaldization of society - An investigation into the changing character of contemporary social life. Thousand Oaks: Pine Forge Press.

Voß, G.G., Rieder, K. (2006): Der arbeitende Kunde. Frankfurt/M: Campus Verlag.

Von Hippel, E. (2005). Democratizing innovation. Cambridge, The MIT Press.

Weber, S. (2004). The success of Open Source. Cambridge, MA and London, England: Harvard University Press.

Wittke, Volker; Heidemarie, Hanekop (2011): New forms of collaborative innovation and production on the Internet. In: Volker Wittke; Heidemarie, Hanekop (eds.): New

Forms of Collaborative Innovation and Production on the Internet - An Interdisciplinary Perspective, pp. 9-29. Universitätsverlag Göttingen.