

Contributing and socialization – biaxial segmentation for users generating content

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Abstract: User generated content is a valuable resource voluntarily provided by a growing number of users. As online and classical businesses increasingly harness this resource the need for strategic handling of the users arises.

In this paper, we seek for a model that allows applying prior research insights on user behaviour to user generated content. Therefore, we develop a strategic segmentation of users who contribute content. Using a biaxial model brought forward by Kozinets for the segmentation of consumers and an ordinal scale model by Li and Bernoff, we propose a model to grasp both the degree of social involvement and the intensity of content contribution by users.

1 Introduction

Usage of the internet was largely limited to passive reception of available content until the advent of large participatory platforms like Wikipedia, YouTube, and Facebook. Hence online users are building content resources together. Plentiful websites and services are emerging that draw considerable value from user generated content. They are becoming an economic phenomenon with consequences for business models and the whole online media landscape as well as for traditional media and marketing [Wu07].

Given the astounding growth of user generated content, businesses explore possible competitive advantages and try to best benefit from the development. On the other hand, the dynamics of user content often seem unmanageable and a lack of understanding keeps practitioners from taking advantage of its possibilities.

Those who engage with active online users already find themselves in a race for the users. For instance, there are several movie online communities in the US. Users come to online communities under different conditions and deliver contributions of a broad range of quality [Oz01]. The economically successful movie community is the one that provides offerings and services that best fit to the demands of users.

Furthermore classical businesses are discovering the value of users who will not file complaints but actively introduce new ideas as we can see in the case of the online community myStarbucksIdea. In a like manner, smaller businesses like the airline JetBlue start similar programs. Soon both Starbucks and JetBlue will face competitors and have to commit their online users. Therefore we need to develop diversified strategies to attract and deal with the participating online user.

Practitioners and researchers are now trying to understand implications of user generated media content as well as how to facilitate the contribution of user content. The objective of this paper is to develop a segmentation model of users who contribute content to online communities.

Our paper is structured as follows: First, we examine existent user segmentations for online communities. We proceed to identify the most useful segmentation models and update it to the application for user generated content. In conclusion, we consider the implications of our segmentation model for theory and management.

2 Theoretical background

We define online communities as a group of users who communicate, interact and develop relationships in a technology-supported environment [LFL02].

User generated content (UGC) is defined by the OECD through three criteria [Wu07]: First the work has to be made accessible to a group of users (e.g. an online community). Furthermore the editor has to make a creative effort to build the work or adapt existing material. And finally the creation of UGC mostly takes place outside professional routines.

Online communities do not necessarily imply the creation of UGC as in instant messaging communities. Notwithstanding, UGC is central to the structure of most online communities as an early definition proposes [HA99]: Virtual communities are computer-mediated spaces where there is a potential for an integration of content and communication with an emphasis on member-generated content.” We therefore define communities of user generated content as online communities in which UGC plays a decisive role. The importance of online communities of user generated content is exemplified by data. The sites that fall into this category (Wikipedia, MySpace, Piczo, YouTube and Bebo) exhibit far higher frequent usage days and times than other sites ranked in the top 50 sites in the United Kingdom [Wu07].

2.1 User segmentation as a utility

For instance, innovation management posits a well researched user segmentation for the integration of a segment of so called lead users into the development of new services and products [Hi86]. As lead users nowadays also contribute information to online communities they can be identified and more easily integrated into innovation processes [BBV08].

Innovation management is mainly interested in the expectations and ideas of some users. A growing number of online repositories that hold lexical articles, product reviews or bookmarks rely on the quality of the UGC. Therefore numerous researchers have analyzed the differences of contributions by different user groups. In an analysis of the articles in the German section of the online encyclopaedia Wikipedia Stein and Hess examine featured articles of high quality. They develop a reputation measure of the editors' quality and find a relation between the editors of an article and the quality of the article [SH07].

The above mentioned segmentation is looking at user groups by an ex-post analysis of user contributions. Seeing the importance of user groups where we cannot rely on the analysis of extensive online contributions (i.e. novel users or contributions like quantitative ratings) we need to search for a user segmentation that will enable ex-ante design of online-communities.

2.2 Early segmentations: Goal-directed and experimental or Passionates, Pragmatics, and Phobics

An early approach towards user typologies has been brought forward by Hoffmann and Novak. They distinguished two modes of user motivation: goal-directed and experiential [HN96]. The dichotomous model is based upon an opposing conceptualisation of extrinsic and intrinsic user motivation. According to this model intrinsically motivated users find reward for their online action in experiential usage like diversion and relaxation. Whereas extrinsically motivated users make use of the internet with a specific goal in mind like gathering information. This model has been opposed by the fact that users actually have both experiential and goal-directed ambitions [KW99].

Subsequent Rodgers and Cannon scrutinized the motivations as well as the actual usage of online media and found three clusters of web users. Passionates are motivated by experiential motives while pragmatics are goal-directed as in the above model. Finally phobics only rarely use online communication and strictly for goal-directed causes [Sh02].

2.3 Two factor model by Kozinets

For the specific purpose of online communities of consumption Kozinets has defined a typology of user groups. By communities of consumption Kozinets denotes “groupings [that] are implicitly and explicitly structured around consumption and marketing interests” [Ko99]. For this purpose Kozinets describes two central measures that affect the “formation of lasting identification” with the community: the intensity of relationship within community and the centrality of consumption to the user.

When an internet user first visits an online community he will mostly browse for information only and surely not have affiliations with many other users. However, as the user visits the community more often, he becomes familiar with its usage, potentially engages in discussed topics and eventually develops stronger ties within the community. Dependent on the status within the community users make use of different communication tools. Hence, Kozinets defines the social ties within the community as primary factor [Ko99]. The second important factor in the case of consumption communities is how central the consumption activity is to a user. The more central consumption activity is to the user’s self-image, the more he will appreciate the community. The self-centrality of consumption is not independent of the social ties.

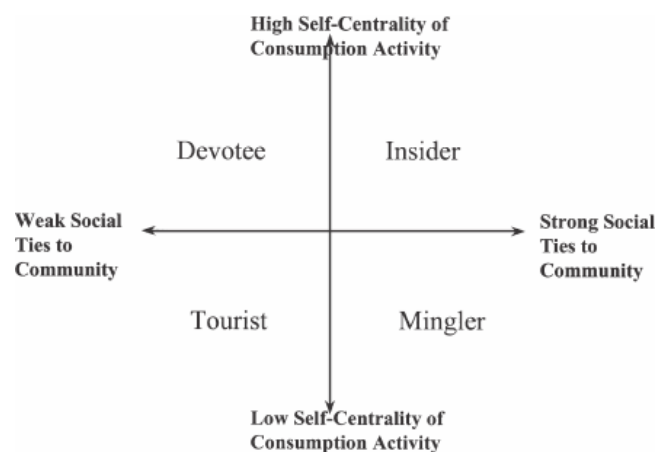


Illustration 1: User typology for communities of consumption [Ko99]

Illustration 1 shows four segments of users in a matrix, the intensity of relationship and centrality of consumption being the two axes.

Kozinets typology has been studied in various research projects. The main advantage of a simplified model is that it can be applied to several cases and researchers are able to develop a body of in-depth knowledge about the properties of the user segments. For instance, researchers in the field of customer integration have adopted Kozinets scheme to identify lead users for product development in several cases [4, 3].

The above mentioned segmentation is very useful for the field of customer integration because it is limited to communities of consumption. Yet we take interest in user action within online communities that are not primarily concerned with consumption but with the generation of user content. Therefore we propose an adaptation of Kozinets model to UGC.

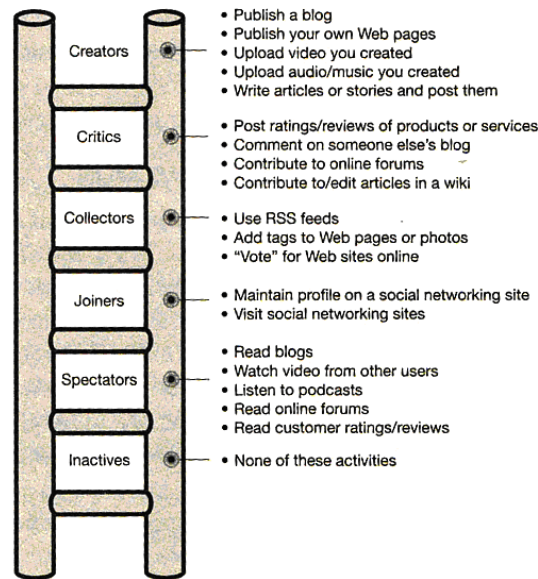


Illustration 2: User typology for UGC [LB08]

Li and Bernoff classify users according to their involvement to content generation on a profile ladder. "Each step on the ladder represents a group of consumers more involved [...] than the previous step." [LB08]. On the top rung of the ladder is the group of creators that publish blogs, have their own websites, upload self-created video and audio or write articles and stories. Above the creator is the critic who posts ratings and reviews of products or services, comments on blog posts, contributes or edits to online forums and wiki articles. The third user group is the group of collectors that use RSS feeds, adds tags to websites or photo collections or votes for websites. The joiners maintain a profile a social networking site and visit these sites as well. The spectators are passive contributors. They read blogs, watch videos from other users, listen to podcasts, and read forums and online ratings. The group of inactive users does none of the activities mentioned above [LB08]. For each user segment Li and Bernoff developed strategies to build and maintain the appropriate relationships according to the organisations objectives.

It seems reasonable to assume that social affiliations go along with the general activity level of a user grow. But content generation and social affiliations are not necessarily coupled [SG04]. Users may write many articles or reviews without maintaining a close network or inversely hold many affiliations but not contribute content.

3 User group model for content generation

Since we want to adapt a proven model of segmentation for communities of content generation we choose the above biaxial model by Kozinets because it has been used by many other research projects and herein proven useful. But we update consumption activity in Kozinets' model to our needs.

The first factor in Kozinets' model is the centrality of consumption activity. As we focus our work on the generation of user content we propose the accordant measure for consumption activity: content generation. We have shown that the distribution of content generation is not evenly distributed among the users of online communities [LB08]. A number of studies identify ample differences among the users who show different levels of content contribution. The measurement of UGC is not uncomplicated. The same content may be distributed on multiple sites, registered users may be inactive or have duplicate accounts and the distinction between user-created and other content is challenging [Wu07]. However, researchers mostly employ straightforward measures such as the number of edits on articles [SH07], of bookmarks [BK08] or ideas.

The second factor brought forward by Kozinets is the intensity of social relationships that a user holds. The measure is analogue to the relational capital as depicted by the research on social capital. Because the research of social capital has contributed a lot to the understanding of online communities the intensity of social relationships should be seen in coherence with social capital. Social capital generally is defined as a non convertible form of capital that enables the access to valuable resources like jobs or information [Pu95]. Social capital is represented by a structure and facilitates actions of actors within this structure. For this reason social capital fosters the development of new knowledge [NG98].

Three dimensions of social capital can be distinguished. The structural dimension of social capital describes the ties between actors in a network. Here we look at the configuration, hierarchy, and density of the network. On the other side, the relational dimension or "relational embeddedness" [NG98] refers to the nature of each relation that an actor holds within a network. It can describe how much influence users have upon others, if they share respect or friendship and what history binds them together. Last, the cognitive dimension points to shared cognitive resources that hold representations and interpretations among the group.

Researchers often utilize simplified models of social capital whereas an affiliation between users is defined by a documented action (e.g. having reciprocal email communication) on a dichotomous scale (connected / not connected). Even these models allow for the calculation of social capital and measures like centrality and their linkage to other attributes like knowledge contribution [WF05].

User generated content is defined by the fact that multiple users work on content together [Wu07]. Research in the field of social capital demonstrates that people who possess many ties to others also have access to more information sources, more ideas and more help [Pu95]. Therefore, user generated content that stems from an environment of a broader network of communication can be of significantly higher quality than work from scarce communication [TW03]. Examples are the frequently edited featured articles on Wikipedia and or ideas for innovations that are improved by collective effort in online communities.

To combine both models we shift the focus from communities of consumption towards communities of content generation such as Wikipedia, Amazon or Threadless. Thereby we identify content generation as the equivalent factor for centrality of consumption activity. Illustration 3 shows the user typology for communities of UGC.

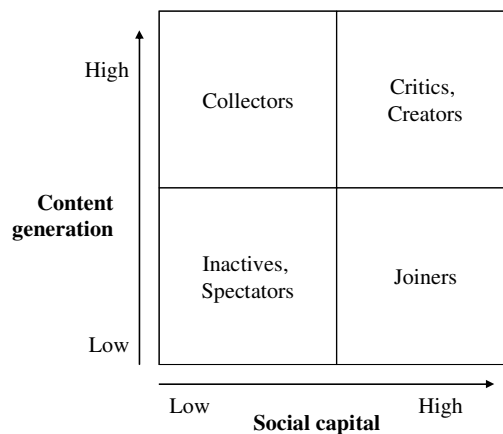


Illustration 3: Proposed adopted user typology for communities of UGC

Li and Bernoff make a distinction between inactives and spectators with regards to content generation. Yet both groups are described as not to actively contribute content to online communities or exhibit social ties in online communities. Therefore, we argue that from a perspective of content generation and social capital the two groups can be seen in a joint group. The joiner profile is described as visiting social communities and only maintaining a profile there. However the OECD definition calls for a combined effort to create UGC. So we find social capital and low content generation for the joiners. This makes the joiner an owner of high social capital and a weak contributor of content.

Collectors contribute to content repertoires by voting and tagging and thereby generate value in online communities. They do not explicitly maintain social affiliations online. They can thus be seen as an active contributor of content and holding low social capital. Finally Li and Bernoff differentiate critics and creators but the less active group of critics contributes regularly to online forums and wikis. Both groups hold social capital through their active role in online communities. Hence we combine the two groups in the field of high content generation and social capital.

For our purpose the combined model features improved correctness compared to Kozinets' model because it has been adapted to the field of UGC and improved clarity since it sets out the implicit component of social capital that Li and Bernoff included in their monoaxial model of content generation.

4 Conclusion

The emergent phenomena of communication on the internet poses a continuous challenge to research that tries to identify super ordinate structures. In this paper we introduced a preliminary model of user segments that is applicable to various communities of UGC.

Concerning theory, there is at present is no unifying model that depicts the core differences of user groups in respect to UGC. From a theoretical perspective, our model is a preliminary proposition for further research and improved comparability between new insights. For instance, research on the motivation of users in the case of Amazon reviews has shown that extrinsically motivated users write significantly more reviews than others. Yet the reviews of these users are rated as less helpful. According to our model these users should display lower levels of social capital which remains to be proven.

With regard to managerial application the segmentation of user groups is an issue since long before the advent of online communities. Our user model provides a first step towards a tool for managers of online communities to enhance the amount of UGC by allocating services to user groups.

We focused on a basic model with two factors. This constraint allows us to apply the model to a broad range of online communities and helped to limit the scope of our analysis. Admittedly, we had to put back important criteria like motivation and demographic attributes that are too multidimensional and complex for a two dimensional model.

In future research we will operationalize the factors content generation and social capital and examine the depicted user groups for motivational sources and attitudes. From thereon we can develop strategies to directly address the motivation of each user group in an effective manner.

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