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Social Control in Online Communities of Consumption:

A Framework for Community Management

INTRODUCTION

Online communities of consumption (OCC) represent highly diverse groups of consumers, since time and geography restrictions are less prevalent (De Valck, Van Bruggen, & Wierenga, 2009). Therefore, OCC members have varying community engagement motives and different perceptions of appropriate behavior which may result in tensions that damage community health (Chalmers Thomas, Price, & Schau, 2013). This paper addresses this phenomenon through the lens of social control problems, where the interests of individual members are misaligned, damaging the interests of the group. Social control refers to the mechanisms or processes that adjust individuals' behaviors to adhere to certain rules in a social group. Social control preempts social problems via socialization and resolves them via regulation. Without arrangements to facilitate socialization to a shared community goal and spirit, and without regulations that help correct deviant behavior, "members will fail to return to the community [and] the community itself will implode" (Celestre, Holmes, & Otte, 2013, p. 3). Thus, OCC social control sustains members' continued engagement and assures the group's viability by tackling social problems (Ren, Kraut, & Kiesler, 2007).

Understanding how social control in OCCs functions is especially important for social media managers and community marketers. Managers would benefit from understanding which control mechanisms best solve which type of social problems. Explicating when managers should intervene or leave the resolution of a problem up to the community members themselves would also be beneficial. Specifically, what characterizes their formal intervention, and how can managers empower members to solve social problems informally?

Effective social control systems are vital since the substantial financial investments in people and technological platforms assigned to social media marketers result in pressures to provide positive return on investment (Reiss-Davis, Parks, Holmes, Celestre, & Otte, 2013).

Academics have investigated OCC social control in a variety of contexts, including brand communities (e.g., Muniz & Schau, 2005), activity-focused communities (e.g. De Valck, 2007), virtual worlds (e.g., Duval Smith, 1999; Fairfield, 2008), innovation communities (e.g. Moon & Sproull, 2008), open source communities (O'Mahony & Ferraro, 2007; Shah, 2006), problem-solving communities (Wiertz, Mathwick, De Ruyter, & Dellaert, 2010), communities of learning (e.g., Vlachopoulos & Cowan, 2010) and Wikipedia (Forte, Larco, & Bruckman, 2009). This research spans many fields including marketing, information systems, management, sociology, cultural studies, law, education and semiotics. Extant academic research on social control in OCCs focuses primarily on the *principles* of social control, i.e. the fundamental laws that direct or govern interactions. Different principles have been identified from case studies, such as authority (O'Mahony & Ferraro, 2007), self-control (Forte et al., 2009), contract (Fairfield, 2008), coercion (Reid, 1999), merit (Wiertz et al., 2010), and fairness or reciprocity (Shah, 2006). Currently, no study has taken a holistic approach to relating the principles. This is problematic as it hinders theory development and the generation of a unified body of knowledge.

Conversely, practitioner-oriented research has mostly focused on social control practices, i.e. the activities aimed at implementing social control during particular interactions. Many social control practices have been described, such as enabling new member recruitment (Williams, 1999) and integration (Lampe and Resnick, 2004), critical member mass development (Colayco & Davis, 2003), behavioral rewards and sanctions (Dellarocas 2010), and conflict resolution practices (Duval Smith, 1999). However, these

practices have generally been presented within "to do" lists that lack theoretical framing, limiting integrated understanding.

Consequently understanding of social control in OCCs is fragmented with some studies focusing on the principles of social control and others on social control practices. This paper therefore has two objectives. It first seeks to integrate the literature and delineate social control in OCCs, the different constructs it encompasses and their interrelationships (cf., MacInnis, 2011). An effective way to delineate constructs and their relationships from a fragmented literature is to leverage a well-established theory (Yadav, 2010). Here, governance theory is leveraged. Governance theory broadly explains the way organizations "govern, organize, and coordinate the actions of individuals to achieve collective outcomes" (O'Mahony & Ferraro, 2007, p 1079). It offers a range of well-articulated descriptive concepts in relation to control and, therefore, helps address delineation issues with regards to social control in OCCs. Governance theory is invoked to do two things: i.e., organize the different principles of social control identified in the literature into combinations that the authors term governance structures; and classify the different social control practices into types, termed moderation practice types. The main governance structures identified are market, hierarchy, and clan. Moderation practices are differentiated based on their purpose: interaction initiation, maintenance and termination. Through this framework of governance structures and moderation practices, a holistic picture of OCC social control is created. Further, the framework allows for the identification of under-researched areas. Thus, the second objective of the paper is to provide a "roadmap for future research" (MacInnis, 2001, p. 138) that highlights elements of social control and interrelationships between them.

This paper contributes to OCC social control literature by delineating OCC social control and providing clear avenues for future research. For practitioners, the framework provides a community management tool enabling the diagnosis of social control problems and

the elaboration of strategies and tactics to address them. The remainder of this article is organized as follows. First, the authors review the OCC literature to develop a conceptualization of, and future research agenda for, governance structures. Subsequently, the authors delineate moderation and propose avenues for future research of the implementation of social control. The article concludes with a discussion of theoretical and practical contributions.

GOVERNANCE STRUCTURES IN ONLINE COMMUNITIES OF CONSUMPTION

When social control in OCCs was first investigated, some believed that all online communities follow "bazaar governance", a principle of control specific to social groupings in cyberspace (Demil Lecoq, 2006). While further research has shown that different principles of control operate, no study has taken a holistic approach to relate the different principles. To integrate the literature, the authors took inspiration from governance theory developed in Business-to-Business marketing (e.g. Heide, 1994), organizational theory (e.g., Ouchi, 1979), institutional economics (e.g., Williamson, 1975), and law (Ellickson, 1987). In this article, the authors adopt the label *governance structure* to indicate a combination of interrelated social control principles. It is important to note that OCCs are not overseen by a single governance structure, but that within the same OCC different governance structures co-exist (e.g., Shah, 2006; Wiertz et al., 2010). The authors conceptualize governance structures operating at the level of interactions, not the community as a whole. Following governance theory, control principles described in the OCC literature were coded based on their guiding *logic*, the *type of interaction* they apply to, the *social control rule* and the *rule enforcement mechanism* they abide to, and their underlying *normative requirement* to achieve social control. Three types of

OCC governance structures emerged: market, hierarchy and clan (see Table 1). For an overview of the literature reviewed see Appendix 1.

[Insert Table 1 about here]

Market Governance

When social control follows the logic of exchange, it creates market governance (cf. Heide, 1994; Ouchi, 1989; Williamson, 1975). Market governance controls transactions, i.e., discrete economic exchanges (Heide, 1994). Transactions unfold when one member gives another a product or service in return for something of economic value. This "something" is money in OCCs such as Amazon, eBay, and Groupon. It is other products or services in barter communities like Thredup (swapping children's clothes), Swaptree (music exchange), U-exchange (service exchange), or Goswap (house swapping). The social control rule that governs market structures is exchange rate. The exchange rate defines the value of one item in comparison to another. It is a price in financial exchanges (e.g., one Bob Dylan record is worth \$10) or a non-fiscal exchange rate in barter and social transactions (e.g., one Bob Dylan record equals three Ray Charles records). Conditions of exchange rate are freely defined and enforced via negotiation between involved parties. Beyond exchange rate and negotiation, transactions rely on the norm of direct reciprocity to unfold successfully. The norm of direct reciprocity prescribes that a member receiving an item of value must directly reciprocate with something of similar value.

The logic of exchange has received sparse attention in the OCC literature. This is understandable as communities traditionally function in opposition to the market logic governing economic transactions (Kozinets, De Valck, Wojnicki & Wilner 2010). However, the reality is that economic transactions do occur in OCCs and can actually be more frequent

than envisioned in the OCC literature. In many OCCs, members not only discuss favorite topics, but also swap or sell items related to their shared consumption interests. Thus, the authors propose that these interactions in OCCs are based on the logic of exchange and should follow the guiding principles of market governance for effective social control.

To illustrate the structure of market governance, imagine a fictitious OCC for fans of electronic music and clubbing ("Clubby"). Katie, a community member, has announced that she is selling her collection of LPs. Andrew, another member, is interested. The interaction is governed by the two parties' knowledge of the LPs' selling price and understanding that once the seller passes the collection to the buyer, the latter must give money in exchange. To determine an acceptable exchange rate and the exact amount of money for which the collection will be exchanged, Katie and Andrew engage in a process of negotiation.

Further research: Technology mediation makes it easier to engage in exchange using alternative currencies. For example, if parties distrust online transactions with normal currencies, they can use crypto currencies such as BitCoin. If they attach negative meanings to money, they can engage in local exchange trading systems where points are traded for items (e.g. Book Swap Australia). The world-wide reach of the Internet makes it easier to gather people around alternative exchange projects such as selling for non-profit purposes or only buying used goods. As a result, OCCs are a playground for experimentations with alternative forms of exchange. They all require exchange rate and reciprocity, but can follow a different logic to standard sales. Utilitarianism is tempered by expressiveness (Sherry, 1990): exchange is not only a means to an end, but also an end in itself – it serves both economic and identity needs. Each form of exchange combines economic and identity purposes differently, following its own logic and representing a different market governance sub-structure. What are the various market governance sub-structures in OCCs and under

which conditions do they operate? Answering such questions will help researchers better understand the different ways in which market governance in OCC is socially embedded. It will also help marketers promote the purchase of their products in market community contexts.

Hierarchy Governance

When social control follows the logic of authority it creates hierarchy governance. Hierarchy governance controls hierarchical interactions, i.e. power asymmetric interactions (Heide, 1994; Ouchi, 1979). In OCCs, power asymmetry consists of differential access to technological resources providing different "physical" abilities in online space (Reid, 1999). The social control rule that governs hierarchical interactions is authoritarian standards, i.e. conventions defined unilaterally by the more powerful party determining what constitutes good or bad behavior (Heide, 1994; Ouchi, 1979). Authoritarian standards are enforced through coercion by the party with more technological power (Duval Smith, 1999; Reid, 1999). Authoritarian standards and their coercive enforcement rely on a norm of legitimate authority which prescribes attributes entitling members to greater technological powers. When legitimacy comes from members' "natural" access to technological resources (e.g. when they belong to the community's founding team), it is despotic. High power members are then referred to as "autocratic leaders" (O'Mahony & Ferraro, 2007, p. 1088), "gods" (Reid, 1999, p. 109), "Leviathan" (Kollock & Smith, 1996, p. 126) or "dictators" (De Zwart & Lindsey, 2009, p 5), and rule with absolute authority. When legitimacy comes from members' talent and achievements, it is meritocratic. Privileged access to the community's technological resources is then granted with conditions and restrictions (O'Mahony & Ferraro, 2007; Reid, 1999). The norm of legitimate authority evolves. Duval Smith (1999), for example, describes how the creators of an educational game ruled without constraints until the creation of an elaborate democratic election system was set up that enabled elected leaders to gain governing power and replace the game creators.

To illustrate hierarchy governance, imagine an interaction between Clubby member Andrew and Fiona, a community administrator. What Andrew is allowed to say or do in the community is unilaterally determined and enforced by Fiona. Fiona has observed that Andrew regularly expresses racist comments which are not tolerated. She reminds him of this rule in a private email exchange. When she observes that Andrew continues, she may temporarily log Andrew out of the community, prevent him from posting, or ban him for good.

Further Research. The extant literature highlights that both sub-types of legitimate hierarchy, despotism and meritocracy, co-exist in OCCs. For example, Humphreys (2008) describes how Blizzard's displays of power in World of Warcraft sway between despotic methods of punishment and case-by-case meritocratic evaluations of members' activities. Reid (1999) describes how technical powers in an old fashioned virtual world (MUD) are awarded for recognized talent (e.g., accomplishment of tasks, ability to create communal bonds), but punishment of the powerless is at the whim of the powerful. However, these descriptions lack a systematic analysis of the circumstances in which one of the forms of legitimate hierarchy takes precedence. To further our understanding of OCC governance structures and expand the governance typology to include sub-types differentiated by social rules, enforcement mechanisms and normative requirements, more research is needed. In particular, the authors call for research that systematically compares and contrasts despotic and meritocratic norms in the context of OCCs that are corporate or third-party owned. Here, tensions about governance issues between the community administrators and regular members are not uncommon. A better understanding of how the two types of social control can co-exist or

alternate will help build effective social control systems based on hierarchy governance structures.

Clan Governance

When social control follows the logic of sharing, it creates clan governance. This has been called a "democratic mode of governance" (O'Mahony & Ferraro, 2007, p. 1082), "selfgovernance" (Forte et al., 2009, p. 49), "normative governance" (Wiertz et al., 2010, p. 672), and "player-to-player control" (Humphreys, 2008, p. 161). The traditional label of clan governance (Ouchi, 1979) is used here. Clan governance controls communal interactions, i.e. interactions between equal members in a group. The social control rule that governs communal interactions is traditions (Ouchi, 1979). Traditions are standards which emerge from repetitive behaviors and define group behavior. Respect of traditions is ensured through peer pressure. Beyond traditions and peer pressure, control of communal interactions relies on collective identity, a lasting, shared sense of belonging to a group. Collective identity can be general and pertain to the OCC as a whole, or local, and relate to a sub-group or clique within the OCC. For example, in a North American distance running community, all members have a sense of belonging to the community based on their shared enthusiasm for the sport. However, there are also two sub-identities: the recreational runners who merely seek to stay in good shape and the competitive runners who constantly challenge and improve their physical performance (Chalmers-Thomas, Price & Schau, 2013).

To illustrate clan governance, imagine an interaction between Matt, a newcomer to Clubby and longtime member Katie. One of the traditions in Clubby is that posts should be written in normal, non-abbreviated English using black font and avoiding extreme punctuation. When Matt disrespects this tradition, Katie labels him as illiterate and tells him this is not the way to write in the community.

Further Research. The shared identity that clan governance's good functioning requires can operate at a global or local level. Many OCCs will combine global and local norms. For example, De Valck (2007) describes how, in a culinary community, tensions about appropriate behavior among member subgroups are regularly alleviated by means of rituals that celebrate all members' shared love of food. Here, social control problems are overcome by highlighting a common identity. However, at other times, differences between members are accentuated when OCC sub-tribes come together to engage in traditions relevant only to them, excluding others. Studying runner communities, Chalmers Thomas et al. (2013) indicate that tensions regarding the recreational or competitive purposes of running are sometimes managed via practices and rituals celebrating members' shared experiences and sometimes by segmenting practices and rituals depending on members' differing orientations.

An interesting avenue for further research is to compare and contrast clan governance at the level of local and global identity. Are the types and the functioning of traditions and peer pressure the same on these two levels? For example, a problem about etiquette may be solved locally with one key member explaining the group's norms, while a problem about community purpose or ethos may require a global consultation of members. Also, community members can rely on both local and global identity when attempting to resolve conflicts. What kind of local or global traditions have the power to reconcile conflict situations? What is the role of particular members during this process? If we assume that peer pressure is an important enforcement mechanism, what are the characteristics of the most influential peers?

Hybrid Governance Structures

Market, hierarchy and clan form a useful starting point for a typology of governance structures operating in OCCs. However, they are based on theoretical archetypes developed in

domains different from OCCs. In the context of OCCs, governance structures sometimes merge to form hybrids. These hybrid structures have not been formally conceptualized in extant OCC literature. The authors, therefore, introduce two additional governance structures, based on combinations of the archetypes. First, market and clan governance are conceptualized to form gift governance. Second, hierarchy and clan governance are conceptualized to form reputation governance. Note that the merging of market and hierarchy governance has been conceptualized in the B2B literature as franchising, where two companies engage in a long-term, unequal commercial relationship (e.g., Kashyap, Antia, & Frazier, 2012). This type of hybrid structure is unlikely to occur in OCC and is, therefore, left out. In the following sections, the authors conceptualize these hybrids, and indicate avenues for further research to advance our theoretical and practical understanding of OCC governance structures.

Gift Governance

First, combining market and clan governance leads to the conceptualization of gift governance. Gift governance is defined as a hybrid governance structure following the logic of generosity. It controls gift-counter-gift interaction chains via self-enforced communal exchange rates and relies on the norm of generalized reciprocity. In appearance, gifting is a deliberate, voluntary transfer of resources to another, following the logic of sharing. However, gifting also involves an implicit obligation to reciprocate with a counter-gift at a future, undefined moment (Belk, 2010), so gifting also follows the logic of exchange. Gift governance, thus, follows a hybrid logic which the authors label *generosity*. Gift-counter-gift chains occur during interactions akin to communal interactions (Lampel & Bhalla, 2007), but the interactions inevitably involve reciprocal transfers of resources of equivalent value. Therefore, they can be conceptualized as transactional relationships that follow the rule of

exchange rate. Nevertheless, the value of the gift is symbolic rather than economic so an appropriate exchange rate is determined by community traditions (Hollenbeck, Peters, & Zinkhan, 2006; Giesler, 2006). Gift governance, therefore, controls interactions via *communal exchange rates*. If a counter-gift is considered inadequate, it is difficult for members to openly protest as this alters the original gifting act (Belk, 2010). Peer-pressure and negotiation, thus, do not easily merge in gift governance so the enforcement of communal exchange rate is *self-enforced*. Finally, gift governance relies on the norm of *generalized reciprocity:* the receiver must reciprocate, but not necessarily to the gifter – she can reciprocate to any community member (Kollock, 1999).

Consider the example of Andrew who regularly receives tips from other Clubby members about secret parties in the city. These tips have even led to bookings as Andrew is an amateur DJ looking for events to perform at. Thus, Andrew feels indebted to Clubby. Out of gratitude, he does his best to answer newcomers' messages and help them acculturate.

Further Research. Gifting is a common activity in OCCs. Members give each other opinions, advice, information and support (Lampel & Bhalla, 2007). It is particularly common in peer-to-peer problem solving communities (i.e., P3 communities, Wiertz, & De Ruyter, 2007), where members offer each other tips and best practice to resolve technical issues. In open source communities, members commonly exchange tips to improve software and overcome bugs (Shah, 2006). In spite of its ubiquity, gift governance has received limited academic attention. Further research should therefore investigate gift governance's ability to control specific social problems.

One important problem for gift governance is counter-gift free-riding. As the conditions of counter-gifting are imprecise (what, to whom, and when?) and nobody can force gift-receivers to reciprocate, the problem of free-riding is realistic in OCCs. This problem is

aggravated since interactions occur via technology-mediation allowing members to stay anonymous and to easily disengage from the community. As a result, accountability is low; anyone can enter an OCC, receive information and advice, and leave without reciprocating. With too many free-riders, OCC contributors may turn their back on the community as their efforts are not reciprocated. This may reduce the community's knowledge reservoir (De Valck, 2007). Further research should investigate the problem of free-riding (e.g., Wiertz et al., 2010), especially how the social control rules of communal exchange rate can be better defined. For example, would free-riding reduce if clear community rules exist regarding what reciprocation is expected, or when community members agree on an acceptable time-frame for reciprocation? Similarly, it would be interesting to investigate the rule enforcement mechanism in gift governance structures. If one assumes that the 'pure form' enforcement mechanisms of market and clan governance (i.e., negotiation and peer pressure respectively) do not work in gift governance structures, what other mechanisms might replace the problematic self-enforcement that commonly rules in OCCs?

Reputation Governance

The second hybrid governance structure combines hierarchy and clan governance into what the authors label reputation governance. Reputation governance follows the logic of popularity whereby members strive to become the 'best' at something in the community, whether it be likability, wittiness, expertise, experience, creativity, number of contributions, or something else. Popularity involves authority with OCC members high in popularity having more authority and influence than members low in popularity. However, what is considered likable, witty, expert, or creative is determined based on shared, communally-defined norms. Popularity thus fuses the logics of authority and sharing. Reputation governs interactions between unequal community members that combine communal and hierarchical

features. These interactions are controlled by rituals of deference and demeanor (Goffman, 1967), whereby popular members display their high position in the community's social hierarchy and less popular members express their respect and appreciation. These rituals are traditionally developed behavioral standards which more popular members may impose on others. Deference and demeanor rituals therefore fuse traditions and authoritarian standards. If a less popular member does not show deference, popular members may turn others against her. Such actions represent the coercive exertion of social power via peer pressure and combine the enforcement mechanisms of hierarchy and clan. Finally, the social norm requirement of reputation governance structures is social hierarchy. This norm lies at the cross roads of hierarchy and clan governance as it determines which elements of the shared, communal identity become the basis for the hierarchy.

Let's revisit Matt, the Clubby newcomer, at the bottom of social hierarchy, and Katie, one of the most respected long-term contributors. Katie shows demeanor by opening a conversation, passing judgments on what Matt says while using strong language. Matt shows deference by contributing to the conversation, asking questions about Katie's beliefs and using kind language. If Matt disrespects Katie, she might make sarcastic jokes to ridicule him in front of other members, to turn them against him.

Further Research. Reputation is an important driver of human behavior as prestige provides utilitarian and identity benefits. Desire for prestige has been identified as a core motivation to contribute to OCCs (Lampel & Bhalla, 2007). A peculiarity of reputation governance in OCC lies in technology-mediation enabling the development of reputation systems which makes some social hierarchy transparent (cf., Dellarocas, 2003; Dellarocas, 2010). For example, reputation systems can make the volume (e.g., number of posts) and quality (e.g., ratings from other members) of member contributions visible to the community. Elaborate reputation

systems on platforms such as eBay, Slashdot and P3 communities have been described in the literature (Gilkeson & Reynolds, 2003; Moon & Sproull, 2008). These studies have generally shown how reputation systems incentivize members to engage in the community.

One social problem regarding reputation systems is the competitive use of the system to boost one's reputation or to defame another. For example, in a culinary community for recipe exchange members would contribute nonsense posts to reach the top-ranked contributors list (De Valck, 2005). Similarly, members of Amazon and eBay would anonymously write critical reviews and give poor ratings to other, competing members (Preece, Nonnecke, & Andrews, 2004). These competitions damage mutual trust and undermine the natural social hierarchy that protects and perpetuates community culture. Thus, a pressing research question considers how reputation systems can be designed to encourage meaningful, valuable, and trustworthy member engagement. The literature on community culture (e.g., Fournier & Lee, 2009; Schouten & McAlexander, 1995; Muniz & O'Guinn, 2001; Schau et al., 2009) should provide inspiration to develop a richer understanding of how social hierarchical interactions regulate beyond simplistic reputation systems.

In summary, governance theory implies that certain social control principles are interrelated. The literature review identified three primary combinations, termed market, hierarchy and clan governance. Subsequently, two additional combinations emerged, gifting and reputation governance. While this section has delineated the fundamental laws that social control follows in OCC, how these laws translate into social control practice requires attention. Furthermore, the different ways in which social control can be practiced remains unclear. To address these issues, the article now turns to the literature on moderation.

MODERATION IN ONLINE COMMUNITIES OF CONSUMPTION

Social media practitioners have a keen interest in the practice of social control which they generally refer to as community management. Given that the term "community management" denotes the implementation of social control for business purposes (Holmström & Henfridsson, 2002), and the focus here is on both business and social purposes, the more neutral label of moderation is used in this article. Many features of moderation have been described in the literature but they are practical accounts about the dos and don'ts of moderation in OCCs with no underlying theory (e.g. Fournier & Lee, 2009; McWilliams, 2000; Williams, 1999; Williams & Cothrel, 2002). Therefore, the purpose of this section is to conceptualize moderation in OCCs.

Moderation is studied in past research at the level of practices, activities aimed at achieving social control. Many moderation practices have been described, from recruiting new members to banning them, mentoring and monitoring, editing, archiving and rating posts, and many more but no systematic overview exists to date that classifies moderation practices. Taking inspiration from governance theory (Heide, 1994) we classify them along two axes: governance and moderation purpose. Activities undertaken to achieve social control are necessarily different depending on whether control is implemented under the logic of exchange, authority or sharing. For example, rules will be formalized in the Terms and Conditions or End-User License Agreement (EULA) under the logic of exchange, the Community Standards and Privacy Statements under the logic of authority and the User Guidelines, Codes of Conduct, Netiquette or FAQ under the logic of sharing (Grimes, Jaeger, & Fleischmann, 2008). Governance therefore represents the first dimension on which moderation practices should be categorized.

While governance structures are a useful basis to begin categorizing moderation practices, they are insufficient since activities described in the literature could link to all three

governance structures (e.g., screening profiles, managing conflict or specifying rules). Based on Heide (1994), the authors have identified a second dimension on which moderation practices should be classified, moderation purpose. In this paper, moderation purpose is a specific goal or function that a moderation practice seeks to achieve. As relationships evolve, so does the purpose of moderation, so that moderation purposes are defined based on the different moments during interaction (Heide, 1994). Moderation aimed at Interaction *Initiation* seeks to select an individual with whom a satisfactory interaction could develop. Moderation aimed at *Interaction Maintenance* seeks to enhance the parties' willingness to continue interacting. Interaction maintenance describes numerous, heterogeneous moderation practices, and can be divided into five sub-purposes: explicating roles, formalizing rules, monitoring interactions, rewarding positive behaviors, and sanctioning negative behaviors. Moderation aimed at explicating roles provides predefined positions or functions in the interaction which involve particular objectives, rights and responsibilities for each party. Moderation aimed at *formalizing rules* specifies rights and responsibilities during interaction and future contingencies. Moderation aimed at monitoring interaction records actors' behavior to determine whether there is a social problem. Moderation aimed at rewarding positive behavior and sanctioning negative behavior is a set of activities based on the monitoring of OCC members' behaviors to create incentives for positive behaviors and disincentives for negative ones. Finally, when the interaction cannot continue, due to natural reasons or dysfunction, moderation aimed at Interaction Termination seeks to bring an interaction to an end in a way which is acceptable for all parties.

[Insert Table 2 about here]

Moderation practices described in the literature were coded according to (1) governance structure (market, hierarchy or clan) and (2) moderation purpose (interaction initiation,

interaction maintenance with its five sub-purposes, and interaction termination). Note that moderation practices associated with hybrid governance structures were not considered as they have received little attention and, thus, information was insufficient. For an overview of the literature reviewed see Appendix 2. This review resulted in a classification of 24 types of moderation practice, each characterized by the combination of a particular governance structure and moderation purpose. Due to space limitations, the different types of moderation practices are not described in detail here. Therefore, Table 2 provides an overview of the general form of each moderation type and, sometimes, giving examples for clarification. For illustration, a selection of moderation practices across all governance structures and moderation purposes are sketched within the fictional Clubby community.

Market interaction initiation consists of selecting a trustworthy exchange partner, a member willing to offer or buy a product of interest, who is deemed to be honest and dependable. It involves lurking on the website to identify offers or demands, screening potential parties' profiles to determine compatibility and quality, selecting the most appropriate party, and contact. In Clubby, a market area enables members to buy and sell items related to dance music and clubbing. When a buyer, Andrew, looking for cheap vintage LPs, notices that Katie is selling her vintage collection he screens Katie's profile. As Katie seems trustworthy, Andrew tells her that he is interested in the LPs. Katie then screens Andrew's profile and decides to discuss the conditions of the sale with him. Hierarchy interaction initiation would involve the same sequence of evaluating, selecting, and deciding but it occurs between an applicant wishing to join the community and an administrator, or between an administrator and a member wishing to gain responsibilities in the community. In clan interaction the same sequence would occur between two equal members of the community initiating a communal discussion.

Hierarchy interaction maintenance involves a wide range of interwoven activities between community members and administrators, chiefly, defining the role of administrators and the administered (members), formalizing roles and associated behaviors, as well as monitoring members' behaviors, rewarding behaviors benefiting the community and sanctioning detrimental ones. In Clubby, Fiona sends Andrew a welcome message after he joins to reward him for joining the community and to incentivize him to further engage. Andrew does engage, passionately, and ends up having regular verbal conflicts with other members. Andrew's behavior creates a negative atmosphere and scares off new members, so Fiona intervenes. She censors some of Andrew's comments reminding him that certain behaviors are forbidden on the platform per community standards. Over time, Andrew's strong engagement in the community, coupled with his broad knowledge of the clubbing culture, earns him the kudos of administrators and he is rewarded by being appointed administrator of a subsection of Clubby. Interaction maintenance serves the same purposes in the other two governance structures, but they take a different meaning due to the different types of interactions. In market governance, buyer and seller roles are specified in the site's Terms and Conditions or EULA. In clan governance, member roles are functional (storyteller, historian, ambassador or comedian) and they are defined in User guidelines. Monitoring in market and clan governance is often simply based on reading posts. Reward and sanctions are informal as members lack special technological power.

Clan interaction termination aims to bring a relationship with another member to an end as smoothly as possible. Typically one ignores other members or, more formally, blocks them. In Clubby, Andrew has ignored a few trolls, members who derive pleasure from annoying others. But the trolls continue spamming Andrew so that he blacklists them, adding them to his "kill file". In hierarchy governance, interaction termination is generally called "banning" and consists of permanently removing a member from the community. Market

interaction termination is more natural as the interaction is not meant to continue once the transaction is completed. At most, parties exchange emails to confirm a deal is concluded.

Further Research. Three interesting areas for future research regarding moderation practices stand out. The first concerns how monitoring varies depending on technology. Platform technology enables and constrains what behaviors can be monitored. For example, social networking sites are conducive to tracking member networks of interactions while this is more difficult on blogs and forums. In contrast, on these platforms text mining can be more easily exploited as a tool for monitoring. Beyond platform technology, the community access device (e.g., desktop, mobile phone, tablet) influences monitoring practices. While computers allow for in-depth tracking and analysis of Internet surfing and webpage visiting behaviors, mobile phones and tablets offer geo-localization functionalities, while the latest smart devices (e.g., Google glasses, hot bands) connect directly with consumers' bodies (augmented reality, biometric sensing) enabling monitoring of community engagement in a much deeper way. Moreover, while traditional OCCs would be located in a single site, today OCCs are dispersed across interlinked locations. For instance, fans of Lady Gaga meet on Facebook, interact on (micro-) blogs, trade collectors' items in a market place, and comment on YouTube videos. As the members interact on multiple platforms, more dynamic analyses accounting for platform shifts are necessary but this is a challenge as metrics vary across platforms. Variations in monitoring activities therefore call for the delineation of the dimensions of monitoring (e.g. purpose, metrics, data integration, data analysis, reporting) and how they combine depending on the type of platform the community is based on, the kind of device the community can be accessed from and whether the community is mono-platform or multiplatform.

This is important as monitoring is a necessary basis for the definition and enforcement of rewards, sanctions and interaction termination. Variations in monitoring thus have a strong influence on the other aspects of moderation. Theorizing the different ways in which monitoring is achieved in OCCs is also important groundwork for the improvement of community management software. Finally technology-enhanced monitoring can raise ethical issues in relation to privacy. It is therefore important to better understand how monitoring functions in OCCs to be able to draw the line between acceptable and unacceptable monitoring.

The second area for future research relates to understanding how moderation practices evolve as moderation become ineffective or detrimental to the community if not adapted to changing circumstances (e.g., Wiertz et al., 2010). Adapting moderation practices means influencing them for the benefit of the group so we call it second-order moderation. The classification of moderation practices emerging from the literature review is static, thus exploratory research is needed to examine second order moderation. Research could start exploring second-order moderation with a typology of its practices. For example, in hierarchical interaction termination, administrators can resign (Williams, 1999), or be dismissed. Administrators can be dismissed by a more powerful administrator (Williams, 1999) or by community members. Members can dismiss administrators via a system of metaadministration ("meta-moderation") whereby members constantly evaluate administrators' quality and distribute positive and negative "power points" (Lampe & Resnick, 2004), an electoral system (cf. Reid, 1999, O'Mahony & Ferraro, 2007) or via boycotts and revolutions (Grimes et al., 2008). This brief comparison of the different ways of adapting hierarchical interaction termination indicates three axes on which dismissal-oriented second-order moderation can be organized: voluntary or involuntary, top-down or bottom-up, peaceful or belligerent. Based on these distinctions, further research could investigate whether the

execution of social control in the community improves or deteriorates depending on the type of second-order moderation used. Furthermore, future research could identify contingencies and determinants of second-order moderation activation: when and why are moderation practices adapted? Contingencies could relate to endogenous forces (e.g., technological innovation, membership characteristics, community culture, or community age) or exogenous forces (e.g., growing or shrinking interest for the consumption activity, corporate activities, current events, or seasonality).

The third area for future research concerns the conceptualization of moderation at a community level. Moderation has generally been described in the literature by inventorying singular moderation practices operating at the micro-level of interactions. However, social control in OCCs is not implemented on a case by case basis but rather as part of an overarching social control system, an integrated set of moderation practices implementing social control at a community level. Conceptualizing how moderation practices integrate into social control systems is important theoretically as it provides a macro understanding of moderation in OCCs. It is also of major interest to community managers and leaders as it gives them conceptual tools to develop community-wide social control strategies. We therefore introduce the concept of moderation configuration. A configuration is an arrangement of causal variables (termed elements or conditions) that generate an outcome of interest (cf. El Sawy, Malhotra, Park, & Pavlou, 2010; Meyer, Tsui, & Hining, 1993). Thus a moderation configuration is an arrangement of moderation practices that together generate social control. A moderation configuration is characterized by (1) the types of moderation practices and (2) the central or peripheral role that each of them plays (El Sawy et al., 2014).

This conceptualization raises two important research questions. First, which moderation configurations can be found in OCCs? This call for investigating the determinants of moderation configurations with the aim of building a taxonomy of OCC moderation

configurations. Based on the authors' knowledge of the literature and their netnographic experiences in OCCs, three primary determinants are proposed which could form the dimensions of the taxonomy: community orientation, community ownership, and community lifecycle. OCCs have different orientations or primary purposes: commerce (e.g., eBay, Amazon), play (e.g., World of Warcraft), support (e.g., self-help groups), networking (e.g., LinkedIn groups), and information (e.g., news sites, technical forums, 3P communities) (cf. Hagel & Armstrong, 1997; Kozinets, 1999). Community orientation determines which types of interactions are common or less common and hence influences which governance structures have a central role in the moderation configuration. Regarding ownership structure, OCCs can be owned by consumers aiming to derive consumption related interests from the community (grassroots OCCs) or by companies aiming to derive profit from it (corporate OCCs). Companies' business interests may be at odds with members' communal interests so owners of corporate communities tend to nurture behaviors beneficial to the company's interests by implementing strong hierarchical rewards and sanctions and detailed transactional rule specifications (e.g. West & O'Mahony, 2008). With regards to community life cycles, the dominant purpose of interactions and the most common social problems evolve throughout OCC life from inception to growth, maturity and transformation or mitosis (cf. Toder-Alon, Brunel and Schneier Siegal, 2005; Howard, 2010; Millington, 2012). As a result, the way social control is (or should be) practiced changes too.

Once the main moderation configurations operating in OCCs identified researchers could investigate the circumstances under which each configuration is effective. For example, when does corporate owners' imposition of hierarchical standards lead to actual social control and when does it provoke backlashes from members wary of the instrumentalization of their community for business purposes? Taken together, this research program would give

community managers systematic insight into how to design effective control systems for different types of OCC with varying objectives and evolving lifecycles.

[Insert Table 3 about here]

CONCLUSION

OCCs have gained increasing attention from marketing scholars in the last 15 years. However, the diversity of members' interests and goals has only recently been recognized as a major social problem threatening OCC's sustainability. As a result, knowledge on social control is fragmented. Taking a governance approach, this paper delineated OCC social control, its main constructs and their relationships and identified under-researched areas with regard to the topic.

Two main theoretical contributions emerged from the delineation of OCC social control. First, it identified misconceptions regarding the levels at which the different aspects of OCC social control operate. Prior research assumed the principles of social control operate at a community level. However, careful conceptualization of principles as governance structures revealed that they actually operate at an interaction level. This revision is important as it means that a given OCC does not follow one principle but rather includes a large number of principles. Future explication of social control in OCCs should account for this diversity. In contrast with the principles of social control, the practice of social control has been assumed to operate at the interaction level. Yet, while moderation practices achieve social control during interactions, moderation practices coalesce into moderation configurations which operate at the community level. This is important as it implies that individual moderation practices cannot be used as the only unit of analysis to evaluate social control effectiveness. Moderation configurations must also account for community level moderation.

Second, the delineation of social control in OCCs sets the stage for a more systematic and theoretical investigation of the topic. Previous work on social control in OCCs has

accumulated a large volume of concepts. These concepts developed independently from one another so that labels have been inconsistently applied with the same labels describing different social control elements and vice versa. This definitional issue made it difficult to determine which labels refer to the same concepts and which labels do not, generally hindering the identification of what is known or unknown. Delineating social control in OCCs has created a framework with a well-defined unified vocabulary. The framework and its vocabulary enable to compare and contrast the concepts in the literature. It is therefore a useful tool to develop a cumulative body of knowledge on social control in OCCs. The authors of this article have used them to develop a research agenda highlighting important research questions and serving as a reference point for further research. Researchers interested in social control in OCC are invited to use them too to position the phenomenon they are interested in within the existing body of knowledge.

Beyond theoretical contributions, multiple managerial implications follow from the paper. The framework for moderation is a useful diagnostic and tactical tool for community managers, helping them to choose the right approach to moderation depending on the social problem at hand. Does the problem lie in selecting the right parties, maintaining engagement between parties, or dismissing the parties? Is the problem embedded in transactional, hierarchical, communal, gifting or social hierarchical interactions? Based on these questions, different types of moderation practices should be implemented to achieve social control. Imagine a community in which recurrent conflicts erupt, jeopardizing community health. If conflicts are started by new members/trolls who enjoy fights with administrators, the problem lies in hierarchical interaction and relates to the initiation phase of interaction. Administrators should create or adapt the selection process for new members. If, by contrast, conflicts erupt repeatedly between new and core members because newcomers find core members scornful and aggressive, the problem is embedded in communal interactions during interaction

maintenance. The solution lies in clanic interaction maintenance practices aimed at sustaining members' engagement. This could be achieved, for instance, when community leaders ensure that newcomers' status is visible on their profile and when they nurture formal traditions regarding where new members should post or how core members should explain the community's culture and codes to new members. Table 2 gives an overview of the different types of moderation practices community managers can engage in depending on the moment of interaction and the type of interaction in which the social problem is embedded. The conceptualization of social control systems also provides community managers with a strategic tool to achieve social control at a community level. Based on the contingencies discussed, community managers can design blue prints of their communities' social control system by defining which types of moderation practices listed in Table 2 must operate in their community and whether these practices should have a central or a peripheral role. Community managers could then use this blue print as a template to implement social control systems.

In conclusion, the discussion of social control in OCCs has highlighted that it is a rich, varied and multi-level phenomenon. As such, it deserves researchers' attention, to provide systematic insights and further theoretical illumination. Explanation of the processes and dynamics of OCC social control will aid community managers to do a better job implementing social control. This will benefit the millions of consumers that are engaged in OCCs and contribute substantial value for businesses and consumers.

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Social Control in Online Communities of Consumption

Governance Structure	Market	Hierarchy	Clan	
Logic	Exchange	Authority	Sharing	
Type of interaction	Transactional interaction	Hierarchical interaction	Communal interaction	
Social control rule	Exchange rate	Authoritarian standards	Traditions	
Rule enforcement	Negotiation	Coercion	Peer pressure	
Social control requirement	Direct reciprocity	Legitimate authority	Shared identity	

Table 1: OCC Governance Structures

		MARKET	RKET HIERARCHY			
INITIATING INTERACTION	Recruiting	Evaluating community: lurking Evaluating party: compatibility, quality Selecting and contacting	Evaluating community by individual lurking/profile screening Selecting and contacting: applying/inviting Evaluating individual by community: application screening /lurking Deciding	Evaluating community: lurking Spontaneous exchange Profile screening Connecting formally		
MAINTENING INTERACTION	Explicating roles	Beneficiary: seeks resource Provider: provides resource	Administrator: ensuring rules are respected, managing information overload, promoting interactions, mediating conflict Administered: complying with rules	Functional social roles : ambassador, historian, mentor, learner, hero, storyteller, performer, greeter, catalyst, etc.		
rules EULA and ToS: rights and resp of transacting parties and conting planning for inadequate transacti transaction failure			Community standards and privacy statements: members' fundamental freedoms and rights and their boundaries, administrators powers and responsibilities, conflict resolution procedures	User guidelines, codes of conduct, netiquettes, mission statements and FAQ: community-wide traditions, local traditions and how local traditions can cohabitate		
interactions Rewarding Infor		Bidding monitoring systems	Reading discussions Community management system functionalities: behavioral tracking via web analytics, semantic analysis, spyware	Reading discussions Profile screening: interest, membership length, volume of contribution, number of contacts, badges		
		Informal positive feedback: thanking, congratulating	Good intentions: welcoming, empathizing, Good behaviors: awarding points and power	Good intentions: welcoming, empathizing Good behaviors: praise		
	Sanctioning negative behavior	Informal negative feedback: voicing in private message	Censoring discussions: editing, moving, closing and archiving comments, discussions and discussion areas Punishing members: paralyzing, exiling Managing conflicts: mediating, arbitrating	Informing: reminding norm Insulting: associating other with stigmatized group, picking on grammar - very blunt or sarcastic		
TERMINATING INTERACTION	Dismissing	Confirmation email	Banning member or replace administrator	Ignore Block: Unfollow, unfriend, add to "kill file"		

Table 2: Classification of OCC Moderation Practices

Governance- substructures How are alternative forms of transaction governed? For example trade governed that serves expressive purposes such as not-for-barter trade? What are the rules guiding trade based on al currencies such as crypto-currencies or point-based currencies? Under what circumstances does or should hierarchy governance meritocratic or despotic principles? In particular, in company-owner where administrators govern as firm employees, when and administrators reward (punish) members for their talent or for the variations.	profit or Iternative ce adopt ed OCCs how do
trade governed that serves expressive purposes such as not-for-barter trade? What are the rules guiding trade based on al currencies such as crypto-currencies or point-based currencies? Under what circumstances does or should hierarchy governance meritocratic or despotic principles? In particular, in company-owner where administrators govern as firm employees, when and	profit or Iternative ce adopt ed OCCs how do
barter trade? What are the rules guiding trade based on al currencies such as crypto-currencies or point-based currencies? Under what circumstances does or should hierarchy governance meritocratic or despotic principles? In particular, in company-owner where administrators govern as firm employees, when and	ce adopt ed OCCs how do
currencies such as crypto-currencies or point-based currencies? Under what circumstances does or should hierarchy governance meritocratic or despotic principles? In particular, in company-owner where administrators govern as firm employees, when and	ce adopt ed OCCs how do
Under what circumstances does or should hierarchy governant meritocratic or despotic principles? In particular, in company-owned where administrators govern as firm employees, when and	ed OCCs how do
meritocratic or despotic principles? In particular, in company-owned where administrators govern as firm employees, when and	ed OCCs how do
where administrators govern as firm employees, when and	how do
administrators reward (pullish) members for their tarent or for the vi	
bring to (take away from) the firm?	arac they
What are the specifics of global and local clan governance operati	ons? For
example, which traditions operate when a conflict situation is enca	
by a local or a global communal identity? Are the members apply	
pressure similarly under each identity? Do members apply peer	pressure
using different strategies?	r 1:1
Hybrid How is counter-gift reciprocation ensured in gift governance? I	
Governance circumstances should OCCs detail the conditions of counter-g	-
Structures enforce reciprocation? When conditions of counter-gifting are detail	
would be the effect of recommending an acceptable time-frame for	
gifting, or of detailing the nature of the reciprocal gift? Can self-	
reciprocation be nurtured and, if so, how? What other ways may th	ere be to
enforce reciprocation?	
How can competitive uses of reputation systems (where members	cheat the
system to boost their reputation and defame that of others) be discou	araged or
reduced? In particular, how do members evaluate others' con	tribution
beyond number of posts and ratings? Which deference and demeand	or rituals
do members engage in to define their social status and exert social p	ower?
Moderation - the Practice of Social Control	
Technology How does OCC platform technology influence the different dimer	nsions of
and monitoring? For example, how do platform type, the mono-	or multi-
Moderation platform nature of the OCC and the access device influence me	
Practices purpose, metrics, data integration, data analysis, and reporting?	
Second Order Can different axes of moderation adaptation be distinguished? For	example,
Moderation hierarchical interactions can be terminated voluntarily or involuntarily	-
peacefully or belligerently and with a top-down or a bottom-up a	
Do those axes apply to the adaptation of other moderation practices.	
more axes be identified?	, and can
What circumstances require moderation practices to adapt? What	t are the
drivers of moderation adaptation?	t are the
1	d toward
E	a towara
Configurations commerce, play, support, information and/or networking.	1 1
Whether and how moderation configurations differ in OCCs or	wned by
commercial brands, third parties and/or consumers.	
Whether and how moderation configurations vary across OCC 1	ıfecycles
from inception, to growth, maturity, and transformation.	
Which moderation configurations are most effective at achieving	ng social
control, and under which circumstances?	

Table 3: Research Agenda

Authors, Year	Research	Type of	Market	Hierarchy	Clan	
	Domain	online	Governance	Governance	Governance	
		community				
De Zwart &	Internet	Virtual	·		√	
Lindsay, 2009	Studies	worlds	•	✓	V	
Di Tullio &	Information	Open source		✓		
Staples, 2013	systems	communities		,	,	
Duval Smith,	Sociology	Multi-user		√		
1999		dungeons		,		
Fairfield, 2008	Law	Virtual	✓			
		worlds	•			
Forte, Larco, &	Information	Wikipedia			✓	
Bruckman, 2009	systems				•	
Gilkeson &	Marketing	Communities	✓			
Reynolds, 2003		of transaction	•			
Humphreys,	Cultural	Virtual	✓	✓	✓	
2008	Studies	worlds			•	
Kollock &	Sociology	Bulletin board			✓	
Smith, 1996		(Usenet)			,	
McWilliam,	Marketing	Brand			✓	
2000		communities			,	
O'Mahony &	Management	Open source		✓	✓	
Ferraro, 2007		communities		,	,	
Ren, Kraut, &	Management	Online				
Kiesler, 2007	sler, 2007 commun				✓	
		in general				
Reid, 1999	Sociology	Multi-user		✓		
		dungeons		,		
Shah, 2006	Management	Open source			✓	
		communities			,	
Wiertz,	Marketing	Peer-to-peer				
Mathwick, De		problem				
Ruyter, &		solving			✓	
Dellaert, 2010						

Appendix 1: Literature Discussing Principles of Social Control in OCCs

Authors, Year	Relationship						Relationship
	Initiation	Roles	Formal Rules	Monitoring	Rewards	Punishment	Termination
Campbell, Fletcher, & Greenhill, 2009		✓					
Chalmers Thomas, Price, & Schau, 2013		✓					
Chu & Liao, 2007		✓					
Citera, Beauregard, & Mitsuya, 2005	✓						
Colayco & Davies, 2003		✓			✓		
Dellarocas, 2010	✓	✓		✓	✓		
De Zwart & Lindsay, 2009		✓	✓				
Duval Smith, 1999		✓	✓		✓	✓	✓
Fairfield, 2008			✓				
Forte, Larco, & Bruckman, 2009		✓	✓			✓	
Fournier & Lee, 2009		✓					
Gilkeson & Reynolds, 2003	✓	✓	✓		✓	✓	
Grimes, Jaeger, & Fleischmann, 2008		✓	✓			✓	
Homström & Henfridson, 2002		✓					
Humphreys, 2008		✓	✓	✓	✓	✓	
Kollock & Smith, 1996			✓	✓		✓	✓
Lampe & Resnick, 2004		✓	✓		✓	✓	✓
Lampe & Johnston, 2005	✓	✓	✓		✓	✓	
McWilliam, 2000					✓		
Moon & Sproull, 2008					✓	✓	
Muniz & Schau, 2005							✓
O'Mahony & Ferraro, 2007		✓	✓		✓		
Preece, Nonnecke & Andrews, 2004	✓	✓	✓		✓	✓	
Ren, Kraut, & Kiesler, 2007	✓	✓	✓	✓	✓		
Reid, 1999		✓				✓	✓
Schau, Muniz, & Arnould, 2009		✓			✓	✓	
Shah, 2006			✓				

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Wiertz, Mathwick, De Ruyter, & Dellaert,			✓	✓	
2010					
Williams & Cothrel, 2000	✓		✓		
Williams, 1999	✓		✓		✓

Appendix 2: Literature Discussing Moderation Practices in OCCs