

Create beyond the borders of the company: A case study of Swisscom's Hackathons

Créer et collaborer au-delà des frontières de l'entreprise : une étude de cas des Hackathons de Swisscom

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Cet article fournit une perspective communicationnelle aux modes d'engagement civique favorisant la création, l'ouverture, le partage et la collaboration. Le cas des communautés de hackers bienveillants et des compétitions *hackathon* est un contexte approprié pour comprendre ce phénomène. L'étude est basée sur une analyse de contenu de tweets échangés dans un contexte de co-création (Swisscom's Hackathon). Une définition de la communication participative et transparente est proposée.

The purpose of this paper is to provide a communication perspective on recent modes of civic engagement that aim to generalize making, opening, sharing, and collaborating. The case of benevolent hacker communities related to hackathon competitions is a compelling context for understanding this phenomenon. The study is based on a content analysis of tweets exchanged in a context of co-creation (i.e., Swisscom's Hackathon). A definition of participatory and transparent communication is proposed.

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Recent modes of civic engagement, such as benevolent hacker movements, have highly influenced the balance of power between citizens and organizations (Fieseler & Fleck, 2013) and transformed the conduct of organizations. Benevolent hackers and collaborative communities are might prove to be one of the richest sources of ideas, creativity, and feedback for organizations. It is of theoretical importance to define a participatory and transparent communication that can foster idea generation and digital app creation.

Civic hackathons (Johnson & Robinson, 2014) – understood as time-limited events for addressing an organization's issues – but also maker and co-working spaces are new kinds of third places (Oldenburg, 1999; Suire, 2016). Benevolent hackers, serious amateurs, and digital activists are spawning new relations on the path of learning, co-creating across borders, and sharing. Organizations are starting to interact with communities with participatory cultures (Jenkins, 1992).

This study will focus on the following research questions:

RQ1. How do some organizations communicate through a participatory culture?

The objective of this study is to propose a definition of a participatory and transparent communication.

1. Literature review

1.1. Communication, PR and community engagement

With Kent and Taylor's dialogic communication (2002) and Ledingham and Bruning's two-way symmetrical approaches (2000), a theoretical shift has taken place in the public relations

field. Many organizations follow principles of openness and trust in relation to guidelines and literature (Grunig & Huang, 2000; Hon & Grunig, 1999). The Public Relations Coalition (2003: 2) recommended that organizations articulate a set of ethical principles or create a process of transparency that applies to all areas of their business. Stakeholders must be invited to participate in this process to indicate the information they need to make accurate decisions (Rawlins, 2008). Further, web 2.0 users, communities of practices (CoP), and hackers ask for more information, more ethical behavior, and a collaborative culture inside the organization's management.

1.2. Benevolent hackers and civic hackathon

Benevolent (or civic) hackers are “computer aficionados driven by an inquisitive passion for tinkering and learning technical systems, and frequently committed to an ethical version of information freedom” (Coleman, 2013: 3). They are in favor of decentralized solutions and organizational forms (Delfanti & Iaconesi, 2016). Hackathon challenges promote creation using an organization's open data (Goëta & Mabi, 2014). Johnson and Robinson (2014) described civic hackathons as: “a time-limited (typically hours or days) event, launched at a specific venue, where enthusiasts, government workers, interested citizens, and members of the private sector meet in a collaborative environment to access [an organization's] open data. The goal [...] is to leverage [the organization's] open data to develop software applications that address issues of shared civic importance. [...] Civic hackathons often present a specific problem or theme (such as transit, or engagement), to which the sponsoring [organization] aims to direct participant efforts toward the development of an app serving some sort of public and/or market need.” (Johnson & Robinson, 2014: 350–351)

The number of hackathon events is growing rapidly in a context of corporate contests and open government. Generally heterogeneous groups of participants are composed of citizens, students, engineers, designers, or artists. Hackers and makers are used to manipulating data generated by and flowing through applications, software, platforms, and infrastructure. Civic hackathons could have numerous impacts on organizations:

- (i) the organizations' information could become more “ascertainable and understandable” (Gower, 2006: 95);
- (ii) the organizations could appear to be more transparent;
- (iii) trust in these organizations could potentially increase (Strathern, 2000);

- (iv) and thus, these hackathons could also serve to leverage knowledge about what stakeholders want to know about these organizations (Rawlins, 2008).

1.3. Participation

Many organizations are still employing one-way communication, only posting information and not engaging in dialogue communication (McCorkindale, 2010). Few of them follow Kent and Taylor's dialogic loop of communication (Rybalko & Seltzer, 2010) to engage with their public and follow a corporate-centric PR.

Paradoxically, on the citizen and stakeholders' side, the demand for participation is high and, in the case of hackathons, is mostly based on intrinsic motivations. Understandably, citizens do not want or find it useful to participate *in* pre-decided products/services or media context. Instead, participation *through* the creation process or the media is solicited by citizens (Park et al., 2000).

1.4. Transparency

Rawlins (2008) offered the following definition of transparency: “the deliberate attempt to make available all legally releasable information – whether positive or negative in nature – in a manner that is accurate, timely, balanced, and unequivocal, for the purpose of enhancing the reasoning ability of publics and holding organizations accountable for their actions, policies, and practices.” (Rawlins, 2008: 75). Transparency thus refers to a number of PR concepts: sincerity and truth (Libaert, 2003); corporate responsibility and ethics (Gower, 2006); a decision-making process (Ledingham & Bruning, 2000); and relationship building (Jahansoozi, 2006).

This literature review leads to the following hypothesis:

H1. Exchanges on Twitter between an organization and hackathon members indicate the organization is willing to engage in discussion and co-create in a collective decision-making context.

2. Methodology

2.1. Sampling and data collection

Tweets exchanged between a major Swiss organization – *Swisscom* – and benevolent hackers during two hackathons (*Start_Hack*, *IoT Hackathon*) were analyzed to test hypothesis H1. Switzerland’s main telecommunication company was selected because of its activities in hackathon events. The content sample comprised $N=130$ unique English, German and French-language tweet and posts regarding hackathons: 65 from Swisscom and 65 from hackers. Tweets are analyzed from Twitter accounts – @Swisscom_Dev, @Swisscom_HR_de, @START_Hack (i.e., Start_Hack’s hackathon organizer) –, and Twitter hashtags – #starthack2017, #START_Hack, #IoThack15 (i.e., IoT Swisscom Hackathon). They were collected manually and centered around Swisscom’s 2017 and 2015 hackathon events.

2.2. Measures, code sheet and coding procedure

The content analysis’ code sheet follows AIP structure (Carpentier, 2011) and was developed from studies outlined in the review of the literature. Namely, to analyze *access* the concept of openness was coded using Kent and Taylor’s dialogic principle (2002) of the usefulness of information, adapted to hackers’ need of data. To analyze *interaction* and relationships with third places, Kent and Taylor’s dialogic principles (2002), Davies et al.’s enterprise dimension (2004) of innovative and up-to-date organizations and Hon and Grunig’s items (1999) of exchange relationship and commitment were selected. Finally, *participation* was coded through different sub-elements. To analyze the do-it-with-other (DIWO) movement a reference to Gerber and Hui’s motivation to participate (2013) was done. To analyze sense making and satisfaction, links to Davies et al.’s agreeableness dimension (2004) and Hon and Grunig’s measure of satisfaction (1999) were considered. To analyze sense of empowerment a reference to Smith et al. (2015) and Bandura (1997) was done (i.e., the following categories were included: enacting attainment, vicarious experience, sense of autonomy and social connectivity). Finally, Hon and Grunig’s items (1999) of control mutuality were selected, such as “This organization and people like me attentive to what each other say”. The units of content analysis included the user type (i.e., hacker and Swisscom).

Results

The results reveal that new relationships with communities of practice for hacking data in collaboration with the organization have a significant influence on the latter.

Table 1 – Descriptive analysis (Swisscom n=65; Hackers n=65)

Categories	Variables	Swisscom	Hackers	χ^2
Openness	Usefulness of information	17 (29%)	2 (3%)	13.87**
	Third place relationship			
Third place relationship	Dialogic loop	8 (14%)	4 (6%)	1.47
	Conservation & Generation	44 (68%)	25 (38%)	11.15**
	Enterprise	40 (62%)	10 (16%)	29.25**
	Exchange relationship	32 (49%)	3 (5%)	32.88**
DIWO	Commitment	48 (74%)	7 (11%)	52.97**
	Be part of a community	45 (69%)	59 (91%)	9.42*
Sense making and satisfaction	Agreeableness	40 (62%)	35 (55%)	0.78
	Satisfaction	22 (34%)	33 (51%)	3.81
Power negotiation	Sense of empowerment	47 (72%)	45 (69%)	0.15
	Control mutuality	27 (42%)	6 (9%)	17.91**

Note. Degrees of freedom (1).

* $p < .05$.

** $p < .01$.

2.3. RQ1. How do some organizations communicate through a participatory culture?

This study conducted a Chi-Square test to examine actors uses of transformational oriented communication. Table 2 displays the descriptive results for all coding categories examined in this study. Hypothesis H3 proposed that exchanges on Twitter between certain organizations and hackathon members demonstrate the organization's willingness to engage in discussion and co-create in a collective decision-making context. Content analysis results show that messages sent by the organization and hackers give high visibility to the context of being part of a community and sense of empowerment. Swisscom was more likely to provide conservation and generation tweets ($\chi = 11.15$, $p < .01$), enterprise (i.e., innovation and up-to-date organization)($\chi = 29.25$, $p < .01$), exchange relationship ($\chi = 32.88$, $p < .01$), commitment

($\chi = 52.97, p < .01$), be part of a community ($\chi = 9.42, p < .05$), and control mutuality ($\chi = 17.91, p < .01$).

3. Discussion and practical implications

3.1. Defining a participatory and transparent communication

Participatory culture inspires organizations to adopt participative and transparent modes of collective decision and action. A definition and assessment of participatory and transparent communication is therefore needed. Five defining principles are proposed:

- (1) Openness. Relationships with benevolent hacker communities, known for their ethic and openness values, is a way for organizations to embrace PR theories oriented toward dialogue, participation, trust, and transparency. Openness can mean ‘opening’ or giving access to data or disclosing information about the organization (L’Etang, 1995). Openness is also related to accepting and responding to criticism (Fish et al., 2011). Furthermore, openness is linked to innovation management through crowdsourcing (Howe, 2009), whereby citizens become involved in collaborative innovation. Thus, more than a decade after Chesbrough and Williams’ publication (2003) on open innovation, the initial managerial audience has expanded globally to a number of organizations, most of which have adapted their research methods and communication to those of CoPs.
- (2) Third place relationship. Three types of communication can emerge in relation to the third places hosted by hackers and collaborative communities:
 - Communication *on* third places. This refers to communication on the general innovation role of the organization and its capacity to understand current social norms surrounding innovation and actions linked to participative and transparent forms of governance. This kind of communication can be associated with minimal forms of participation and self-interested impression management;
 - Communication *inside* third places. Sponsoring hacker and maker events can increase an organization’s visibility within CoPs and lead to opportunities to be in contact with them and understand their norms and needs. Within this context, the organization may appear to be more fair and open, although its communication is still essentially promotional;
 - Communication *with* third places. Communicating about collaborative

experiences or employees in third places with hackers and CoP members corresponds to a maximalist form of participation. Moreover, having corporate hackers is a managerial way of *almost* (Gershenfeld, 2012) becoming a smart participative and transparent organization.

(3) Do-it-with-others (DIWO). The concept of DIWO emphasizes “the collective and collaborative action of the individual and atomistic innovation of self that acts” (Ratto & Boler, 2014: 8). DIWO is observed in various forms linked to altruism (Unger, 1991): DIWO-for-other means doing together with benefits for other persons or groups (for instance for medical research and health problems); DIWO-for-all means doing together with benefits for everybody, including the persons participating in solving the problem (for instance for fighting climate change or developing smart cities). The DIWO concept emerges because the heterogeneity of the crowd is a condition for getting the best results from crowdsourcing. Engineers, artists, students, designers, technicians, and even mere citizens are welcomed and the term “other” can refer to individuals, groups, or organizations (whether commercial or not).

(4) Sense making and satisfaction. Recent socio-technical praxis in relation to creating things and digital services is in coherence with the social norms of expressing ideas freely and sharing knowledge and solutions that include self-creation or self-assembling. Major outcomes are conceptually oriented toward “freedom, decentralization, heterarchy, autonomy, self-determination, collaboration, and mutual aid” (Milberry, 2014: 54). Three types of values and sense making emerge:

- *Sense of fulfillment.* People need satisfaction (Söderberg, 2012). Products/services created by citizens make more sense than those that are merely bought. This is why participatory communication seems to value individual/collective creation. To reinforce this psychological gratification, some organizations recognize citizens’ participation and demonstrate gratitude toward them (Fisher & Ackerman, 1998; Yang & Ott, 2016). In this way, individuals can feel that their contributions are appreciated and can be satisfied with the organization’s evaluation of their performance.
- *Trust-based communication.* Trust has a positive connotation of morality and ethicality (Banerjeed et al., 2006). When organizations have frequent personal interactions with social norm partners, it leads to the development of trust and mutual understanding (Bowen et al., 2010: 305). In a transformational strategy,

organizations can adopt some of the values of the CoP's to maintain relationships in the long run.

- *Sustainable and responsible*. Corporate values of sustainability and responsibility (L'Etang, 1995) are an integrative part of the business strategy of many companies managing a transition from a minimalist to a maximalist way of participating from a minimalist to a maximalist way of participating. The social norms followed are compatible with market norms of long-term profit maximization (Signitzer & Prexl, 2007).

(5) Power negotiation: Participatory and transparent communication implies a delegation of decision-making power and gives participants a sense of power (Bandura, 1977). Some organizations involve stakeholders and employees in the decision process for selecting new products, upgrades or creating products/services. Power is negotiated and flows between hacker (or maker) networks and the organization. These “capillaries of power” (Foucault, 1982) promote a micro-level, decentralized, and ever-present power model where negotiation between networks and the organization is a day-to-day activity (for instance, where citizens negotiate ways of creating and using parks, spaces or mobility solutions with local mayors). However, this is not the same as an “equalization” of power, as an organization can decide to stop the openness relationship and take a more traditional commercial path.

Conclusion

This study reconsiders the relationship between organizations and civil society. This work portrays the complexity of participation practices and principles inside an organizational transformation through transparent and participative communication. Organizations can seize these opportunities to learn how to respect recent public relations theories oriented toward openness, sharing control over processes, dialogue, participation, trust, and transparency (Men & Tsai, 2015).

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