



How Social Media Mashups Enable and Constrain Online Activism of Civil Society Organizations

Oana Brindusa Albu and Michael Andreas Etter

Contents

Introduction	2
Social Media and Activism	4
Beyond a Human-Centered View of SM Use	4
Connective Affordances of SM	5
Instantaneous and Integrative Content Sharing as Means for Connective Action	7
Digital Activism in Tunisia	8
Hashtags and Mashups: The Ordering and Disordering Role of Non-human Actors for CSO Activism	9
Integrative Content Sharing	12
Instantaneous Content Sharing	13
Future Directions	15
Conclusion	17
Cross-References	17
References	17

Abstract

Activists of civil society organizations often use social media (SM) to organize and achieve social change by sharing content across different SM technologies. These technologies themselves can be understood as non-human actors that crucially influence how activists share content and organize. This chapter focuses on how the sharing of content, which is shaped by the interplay between human and non-human actors, results in mashups, i.e., mutable interactions that emerge

O. B. Albu (✉)

Department of Marketing and Management, University of Southern Denmark, Odense M, Denmark
e-mail: oabri@sam.sdu.dk

M. A. Etter

Marie Curie Research Fellow, Faculty of Management, Cass Business School, City, University of London, London, UK
e-mail: michael.etter@city.ac.uk

from disparate locales. Based on affordances theory and an ethnographic study, this chapter investigates how these mashups influence activist organizing of two civil society organizations. The study shows how the human-technology interplay that rests on the feature of “exporting” and “importing” content across SM connects various actors and interactions. The study furthermore shows the role and agency of non-human actors (algorithm-driven hashtags) in creating mashups and shows how these mashups can develop ordering and disordering effects.

Keywords

Social media · Digital activism · Mashups · Organizational theory · Connective affordances

Introduction

Social media (SM) are computer-based tools (such as websites and apps) that people use to create and share content with other people and organize collectively (McKenna et al. 2017). SM are important for connective action, i.e., a new form of collective engagement, whereby multiple actors come together spontaneously and informally, even if they do not all equally identify with a common cause, and engage in co-participation and co-production of content (Bennett and Segerberg 2012; Vaast et al. 2017). Civil society organizations (CSOs) are increasingly using these technologies in their efforts to promote social change by mobilizing and engaging large and loosely connected crowds (Lee and Chan 2016). Research has looked at the effects technologies have on the way people organize (for a review see Leonardi and Barley 2008; Leonardi et al. 2012). Much of the work looking at SM affordances (i.e., the relations linking the capabilities afforded by technology interactions to the actors’ purposes) has extensively examined the ways in which SM affect technology-organization relationships (Treem and Leonardi 2012) and the interdependent roles of different actors that these technologies create (Vaast et al. 2017). However, the emphasis is typically placed on how actors use *one SM technology at a time* (Leonardi et al. 2013, emphasis added). As a result, there is only little known about what happens when multiple SM are used at the same time.

Furthermore, current studies usually assume that the actors in SM networks are humans. This chapter argues that more attention needs to be paid to how non-human elements, such as algorithms, play an increasingly important role in information diffusion and organizing processes, i.e., selecting what information is considered relevant to individuals for coordinating organizational tasks (Scott and Orlikowski 2014; Gillespie et al. 2014). Particularly, when SM technologies are used at the same time, these algorithms affect how different technologies interact with each other and consequently how human actors organize. Recent studies show, indeed, that algorithms change the way humans interact and organize when they are using hashtags (i.e., linguistic markers preceded by the dash sign #). One such example is the hashtag #LasVegasShooting that was used to share news and information about a mass shooting that took place in Las Vegas (Abbruzzese 2017). While it may seem

like an innocent typo that can be discarded (LasVagas instead of LasVegas), it represents a larger problem. Such mistakes can lead to big misinformation problems when algorithms are involved and even cause the system to help spread easily disproven information. The algorithm takes into account, on the one hand, the number of tweets that are related to the trends when ranking and determining trends. On the other hand, the algorithm groups together trends and hashtags if they are related to the same topic. For instance, #MondayMotivation and #MotivationMonday may both be represented by #MondayMotivation (Twitter 2017). While Twitter does have some human oversight of its trends, both employees and users have little power to make changes – even correcting a misspelling since it is the algorithm that decides which hashtags will be trending (Abbruzzese 2017).

In addition, the same hashtags are often used on different SM platforms, thereby connecting interactions across platforms, which results into mashups (i.e., freely mixed and combined content, Yoo 2012). While mashups can be central to organizing by connecting platforms, actors, interactions, and content, there is still little knowledge of the subsequent implications for connective action (Bennett and Segerberg 2012). For a richer understanding, this study will explore how both human and non-human elements create mashups through the sharing of content (i.e., clustering mutable interactions that connect with each other across large communities, Asur and Huberman 2010).

To shed light on these processes, this chapter builds on complementary approaches from affordances literature and organizational communication studies (Leonardi et al. 2013). These approaches, which are well-established in the social sciences research tradition, were adopted because they work specifically within a relational and performative ontology and help us examine how human and non-human elements form a social and material nexus that is constitutive of organizing. Accordingly, in this study SM interactions are conceptualized to be created by both humans (SM users) and non-humans (i.e., algorithm-based hashtags). The analytical focus is on material agency, which allows to show that action and agency are not human beings' privileges but that humans are acted upon as much as they act. Such an approach would neither overplay technology's effects (seeing it as primarily deterministic) nor underplay its pliability (seeing it as primarily subject to human interpretations and intentions), and it would neither black-box the dynamics and entailments of technology nor diminish its workings and effects in the world (Scott and Orlikowski 2014). With this theoretical lens, the chapter identifies connective affordances that appear when SM are used in the same time and the implications of these affordances for the everyday organizing of fluid collectives.

In short, this chapter proposes that due to distributed agency, SM afford content sharing in uncontrollable manners, and because they do, SM introduce new forms of collective engagement (Bennett and Segerberg 2012). As it is discussed next, content sharing enables and constrains organizing, by introducing both order and disorder for the organizing processes. Disorder occurs when digital interactions exceed authors' full control as they leave the initial context of their creation and have negative effects for collective organizing. This happens, because digital interactions

have the capacity to produce unprompted actions and collective coordination across large, varied, and uncoordinated audiences (Yoo 2012).

In sum, this chapter provides insight into the ordering and disordering effects of SM use and shows how both human and material agency shape connective action. It thereby sheds light on the hybrid use of SM, whose interrelations, implementations, and outcomes are not yet fully understood (Fulk and Yuan 2013). The chapter proceeds as follows: first it is discussed that, despite emerging studies on non-human agency in SM, a tendency to focus only on humans prevails in existing research. Then the connective affordances of SM are introduced, and it is shown how these enable forms of content sharing with both ordering and disordering effects. After describing the ethnographic methods and analytical steps employed, the chapter presents a case study that shows the implications of multiple SM use in two CSOs. Lastly, the chapter concludes by discussing the limitations of the study, which acts as a springboard for a brief future research agenda.

Social Media and Activism

Beyond a Human-Centered View of SM Use

There are many actors on SM that interact in far-reaching social networks, such as Twitter and Facebook. In social network studies (Wasserman and Faust 1994), the actors of networks (“nodes”) are thought to be human beings that are connected through ties, such as friendships. For instance, studies on the impact of social influence on product adoption and content generation on SM platforms emphasize the human aspect of actors by conceptualizing them as individuals/people (e.g., Aral and Walker 2014). Also, in organization and communication studies, SM are typically considered to be tools used by humans for organizing processes, such as recruitment, mobilization of resources, and more generally the promotion of social change (Dobusch and Schoeneborn 2015). SM are then often understood as instruments that individuals use to disseminate information and create community engagement. In social movement studies, for example, actors are considered to be users that protest authoritarian regimes or use SM instruments to execute communication strategies (Lovejoy and Saxton 2012).

The focus on *human agency* offers of course valuable insights concerning how SM facilitate organizational processes such as information diffusion (Meraz and Papacharissi 2013), campaigning, mobilization, and engagement (McPherson 2015). However, studies about the role of non-human elements, which are increasingly present on SM, for connective action are scarce. For instance, algorithmic syntaxes have been shown to have influence over changing peoples’ behavior through creating awareness and social learning. Indeed, studies indicate that collaborating for knowledge, exerting or receiving influence, purchasing or reviewing products, or diffusing information in SM do not need to be driven by people; such processes can also be guided by algorithms which modify how SM work and hold so far unexplored implications for organizational theory and practice

(Salge and Karahanna 2016). In fact, SM can be seen to remove human agency from the center stage (Kallinikos et al. 2012), and it is only through these technologies that human and non-human actors are able to act in certain ways and therefore make human agency possible in the first place (Kallinikos et al. 2012).

Besides a tendency to focus strongly on human agency in SM research, an enthusiastic tone tends to pervade current studies about SM use for social change. Indeed, studies understand SM as technologies that facilitate and create dialogue, increase the access to information, and help organizing processes (see Lovejoy and Saxton 2012). While such research about the human use of SM is valuable, studies need to investigate also the increased complexities introduced by algorithms and how these shape data flows (Flyverbom 2016) and connective action. Furthermore, more knowledge is needed about the ways in which non-human elements act on SM and their ability of manipulating data sharing practices, because they may generate both order and disorder. Specifically, important issues surrounding non-human actors' agency are related to digital activism. The ways in which algorithm-based hashtags or the multiple use of SM can be used by CSOs to raise awareness for a social cause in a way that also mobilizes people to participate in offline connective action, and the constraints that arise when doing so, are still undertheorized.

For understanding such matters, it is useful to explore how the uses across, and communication through, different SM can enable content sharing in which multiple actors are tied together. To this end, it is next discussed how connective affordances facilitate different types of content sharing. Since the chapter adopts an inductive grounded theory approach (Charmaz 2006), the study iteratively compared existing data with emerging data and refined the theoretical framework accordingly. Therefore, the connective affordances of three SM (Facebook, Twitter, and Meerkat) used in the case study are next discussed.

Connective Affordances of SM

An established stream of literature has examined SM affordances, such as visibility, persistence, editability, and association, which influence organizing processes and their outcomes (Treem and Leonardi 2012; Leonardi et al. 2013). For example, the visibility of communications, which were once invisible, facilitates new practices of knowledge sharing and may influence actors' decision to participate in organizing processes (e.g., Yardi et al. 2009). Similarly, the association of actors with multimedia content (e.g., "tagging" users and creating hashtags on Facebook and Twitter) allows actors to enrich their social connections (e.g., Thom-Santelli et al. 2008). Recent studies have shown how SM create connective affordances, which means that users are mutually dependent upon each other's particular SM use for coordinating connective action. For example, Vaast et al. (2017) show how interrelated use of Twitter creates interdependencies and new emerging roles of different actors that are fluid and that depend on socio-material relationships and the ways in which material features are employed by multiple individuals. For these affordances to play out, individuals depend on each other's SM use through similar patterns.

To this extent, SM affordances that facilitate data sharing across spaces, times, and technologies afford connective action, while depending on multiple actors that use SM in similar ways. For example, in order to mobilize action through a hashtag that connects activists from multiple sites, actors need to use SM in similar ways, thereby creating mashups, which in turn will influence the processes of organizing, for example, during instant protests (see Rane and Salem 2012). Algorithms play a crucial role for the creation and impact of mashups, thereby facilitating new socio-material relationships that influence how individuals connect and organize. To understand how this relationship between human and non-human actors unfolds, this chapter shifts the focus away from emerging and interdependent roles of connected individuals (e.g., Vaast et al. 2017), toward the emergence of mashups that depend on socio-material practices of both humans and non-humans.

Hashtags as non-human actors develop agency because they are driven by an algorithm, which embodies a command structure enabling them to act (Goffey 2008). This is not to say that human agency is passed over in the process of using SM. Instead, the key phenomenon is hybrid association: the entanglement between humans and technologies that affords connective action in manners that could not be done otherwise because both actors exchange properties with each other leading to unprecedented fluid and messy collectives (Deuze 2012). This relationship helps one understand the extent to which combined interactions substantiate both: *order* through collectively specifying goals and targets, setting and sharing deadlines and responsibilities, and mobilizing actors in relation to sudden environmental changes and *disorder*, as the interactions misguide individuals about meeting locations; decontextualize, omit, or promote fake information on reports; and disassociate actors from texts. Both ordering and disordering are specific to each instance of organizing since digital interactions can take a life on their own, as they are co-produced by various actors in different times and spaces. For a more detailed understanding of the implications of SM use, the chapter turns the attention to trace how such interactions propagate and connect with each other across outspread communities of activists. This is important, because digital interactions are based on the transformation and accumulation of communication acts and interaction (Jackson 2007). This approach allows the examination of how such interactions “travel” crisscrossing multiple sites with underexplored ordering and disordering implications.

Specifically, when actors engage in practices that share content across different SM, content becomes combined and can produce unprompted change driven by large, varied, and uncoordinated audiences (Yoo 2012). In the case study of this chapter, content sharing is facilitated in two manners, on the one hand, by the ability to “export” interactions from one SM to another (Twitter interactions can be exported to Facebook). This allows actors to link different SM platforms and organize and act at a distance across different SM platforms. On the other hand, as the case study will show, content sharing is based on the integration of interactions from one SM to another (e.g., Facebook allows integrating live videos from Meerkat). To this extent, both human and non-human actors “import” interactions from distinct sites to coordinate with large often anonymous audiences. In this context,

actors become temporarily connected with each other enabling connective action (see Dobusch and Schoeneborn 2015). However, these types of data sharing done by human and non-human actors introduce also disorder in organizing processes because they create mutable, often uncontrollable, and unpredictable mashups that constrain organizing processes (Wilkie et al. 2015).

Instantaneous and Integrative Content Sharing as Means for Connective Action

When interactions are combined across SM, mashups are established with visible and persistent links (“tags”) between texts, photos, or videos with other users or with specific spatiotemporal locations (“check-in”) that users can edit and modify at any time. For instance, in the case of the “We are all Khaled Said” Facebook page, “liking,” “tagging,” “hashtagging,” and “reposting” or “retweeting” a Facebook page across other SM created mashups with visible links which, among other factors, enabled over 390,000 members of civil society to put into motion the Egyptian revolt of 2011 (Herrera 2014). Thus, mashups have become central elements in organizational processes, particularly in an environment of turmoil, fast changing conditions, and high uncertainty. Studies have shown that a major part of connective action that occurs in a publicly open manner is often based on visible hyperlinks (Segerberg and Bennett 2011). Mashups may therefore increase the visibility of the dynamics of connective action and mass mobilization (Milan 2015). Based on an inductive analysis, this chapter identified that mashups result from two interrelated types of content sharing (e.g., integrative and instantaneous) made possible by connective affordances of SM, which are presented next.

Integrative content sharing happens as interactions that are publicly exchanged between Twitter, Facebook, and Meerkat locales prompt actors to act as a collective based on emerging incidents. Here the dynamic integration of various interactions produces order in organizational activities since this integration can modify the direction and content of organizational conversations, circulate reports, set up meeting coordinates, and share strategic data (Segerberg and Bennett 2011). Multiple actors and their conversations are connected by being re-embedded in the situated space-time of another actor, if that actor in turn retweets or reposts (i.e., forward the tweet to the bot’s or individuals’ “followers” or “friends,” see Murthy 2011). Disorder may happen due to different reasons, such as the limited visibility of SM interactions (Murthy 2009) or confusion caused by the intended or unintended integration of deceptive information by intervening actors which alter and edit the interactions (Salge and Karahanna 2016). For instance, in the case of the conflict in Eastern Ukraine, SM became a propaganda outlet whereby users integrated and broadcasted opposing views and misinformation about the ongoing conflict in Facebook and Twitter mashups (Makhortykh and Lyebedyev 2015).

Instantaneous content sharing takes place when Facebook, Twitter, and Meerkat interactions permit actors to coordinate connective action at high speed. The intertwined sharing of Twitter interactions with Facebook and Meerkat ones

generates mashups that can lead to order by allowing fast response to sudden changes in the environment (Agrawal et al. 2014). This happens, as combined interactions form the basis for ad hoc coordination, for example, for the coordination of meetings after significant turning of events (Aouragh and Alexander 2011). In doing so, interactions track events in real time and spontaneously mass mobilize members (Eltantawy and Wiest 2011). One example is the hashtag #SidiBouزيد which was used on both Facebook and Twitter to share content (e.g., messages, photos, videos, and locations), which connected over 200,000 Tunisian members of civil society to coordinate concurrent protests in different locations that subsequently contributed to starting the Jasmine Revolution of 2011 (Rane and Salem 2012). Disorder may also be introduced because of the speed with which combined interactions move across SM. Confusion can arise because these interactions transport information faster than organizational members' abilities to keep track of the immediate developments across SM, even though they might be connected to each other.

In short, integrative and instantaneous content sharing, which connects human and non-humans actors, can have both ordering and disordering implications for organizational processes (Campbell 2005). It therefore becomes relevant to identify the distributed forms of agency present on SM and their (dis)ordering potential, which are revealed primarily in the interaction with its users (Deuze 2012). The case study presented next thus examines the ways in which data sharing through connective affordances leads to order and disorder in digital activism.

Digital Activism in Tunisia

Tunisia was chosen as a site of investigation for digital activism, because it is a representative of the MENA region where social media has a high penetration rate for civil society organizations (Rane and Salem 2012). For instance, on the list of the top 20 nations worldwide in terms of new Facebook users in 2010, half are from the MENA region, and during 2011 the number of new MENA users has increased by 78% (Rane and Salem 2012). Two CSOs were studied because these types of organizations use SM as central resources in organizing against human rights abuses and coordinating with international actors to lend their support for protests and uprisings (Lee and Chan 2016). A CSO with a longer experience in using SM for collective action (Kappa, 3 years) and a CSO who was in the beginning of using such technologies (Omega, 9 months) were selected in order to obtain a diversity of parameters for the purpose of comparison (Tracy 2013). Omega is a CSO that works to promote open government and democracy in Tunisian institutions (Omega Annual Report 2015). Omega members use SM for coordinating their daily work (create advocacy strategies, attract supporters for anti-corruption campaigns, recruiting of volunteers, etc.). Kappa is an advocacy CSO that works to defend the freedom of access to information fundamental right by offering citizens the means to stay updated with their elected representatives and thus reposition citizens at the core of political action (Kappa Annual Report 2015). In doing so, Kappa members rely on

SM for coordinating organizational tasks (e.g., disclosing the activities of Tunisia's National Constituent Assembly to the public by broadcasting, etc.).

Digital activism was analyzed based on multi-sited fieldwork (participant observation, qualitative interviews, and sourcing the SM interactions of Kappa and Omega members). The analysis focused on critical events where interactions had an impact on the ability of members to organize and collectively coordinate specific activities (i.e., campaigns, protests, conferences). The rationale of selecting critical SM events builds upon an established tradition in research that investigates connective action (Seegerberg and Bennett 2011). Critical events were identified by following four criteria: (1) they involved multiple actors interacting through multiple SM use; (2) they were characterized by an identifiable, but not necessarily very precise, common cause or theme; (3) they unfolded over time; and (4) they involved specific and intended organizing tasks, taking place in physical or virtual locations (e.g., press release or virtual vote count). The case study shows what actors (i.e., users, hashtags) did (share data) in specific critical events, what this meant for collective action (order and disorder), and how this related to connective affordances (see Table 1). These results are presented in the following section on the basis of two themes.

Hashtags and Mashups: The Ordering and Disordering Role of Non-human Actors for CSO Activism

Connective action by Omega and Kappa, as it is illustrated next, depends crucially on connective affordances of SM, which facilitate content sharing and connect human and non-human actors through dynamic socio-material relationships. In doing so, SM allowed both CSOs to generate and co-produce activist online tactics (i.e., raising digital petitioning signatures, broadcasting and live streaming protests, increasing awareness for advocacy campaigns, etc.) on platforms, such as Meerkat, Twitter, and Facebook, where visible hyperlinks connect actors and aggregate content from these different platforms. In the case of Omega, an instance indicative of the ability of SM to create connective action was the live broadcasting of a press conference in order to mobilize actors across different sites: “@Omega [LIVE NOW] Press Conference Now: Our symposium of civil society #meerkat Watch Omega [LIVE NOW] from Tunis mrk.tv” (Omega Facebook/Meerkat mashup). Meerkat interactions allowed Omega members to collaboratively broadcast through the “cameo” feature where the video stream was “taken over” for 60 seconds by another actor following the event, who could integrate his or her own content into the broadcast. Such affordance allowed a shift from simply broadcasting to a certain audience to broadcast together with other connected actors that track and contribute to the respective mashup. In such instances, mashups create order as they allow activists to engage in connective action and attract supporters for their activities, as the manager indicates:

We managed to gather more than 20 national and more than 5 international organisations for our symposium where we gave a preliminary report of the problems encountered in our fight

Table 1 Connective Action and Content Sharing

Data analysis			
Content sharing	Order	Disorder	Actors and examples
Integrative			
Is facilitated through connective affordances, where human and non-human actors integrate content (i.e., reports, videos, pictures, interactions, etc.) across spaces, times, technologies	Integrative content sharing and the resulting mashups enable connective action by mobilizing and engaging large and loosely connected crowds by giving mutual access to information and interaction, thereby connecting actors	Integrative content sharing and the resulting mashups disrupt connective action by misguiding actors about meeting locations, and omitting or promoting fake information on reports, and disassociating authors from texts	Once #Tunisia and #TnXYZ started trending that day on Twitter and Facebook, we had to use them everywhere although they weren't our hashtags (Omega manager, interview) [H]ashtags stand for something else and work differently across platforms than what you'd expect (Kappa manager, interview)
Instantaneous			
Is facilitated through connective affordances that rest on the socio-material feature of importing and exporting content across technologies, which makes sharing to happen at high speed and instantly	Instantaneous content sharing and the resulting mashups enable connective action by producing unprompted actions and driving collective coordination across large, varied, and uncoordinated audiences at high speed	Instantaneous content sharing and the resulting mashups disrupt connective action by confusing actors because interactions transport information faster than one's abilities to keep track of the immediate developments across SM, even though actors might be connected to each other	We have a team [. . .] posting on our social media all the sessions planned, all the votes. Like this we give those interested in the accountability of elected representatives the chance to be in real-time control of their votes in the assembly (Kappa manager, interview) @Kappa where can we find information about the plenary session of today? I follow #FL2016 but the info went too quickly among all sorts of stuff. Which is the room number? (Tweet, Kappa manager)

for human rights vis-à-vis the authorities' fight against terrorism. In order to *get more activists to show up* write a reply to our tweets where we tag their user names like cc @user and a hashtag. This goes across all our [social] media accounts as we've put all together. We broadcast live streams on Meerkat and use Facebook at the same time, as in Tunisia most of people that live outside of the big cities rely on Facebook. So now when we share something it goes everywhere and this gets bloggers on their feet. (Omega manager, interview, emphasis added)

However, the resulting mashups introduce also disorder to connective action. In the case of Kappa, a mashup of a Facebook event and Meerkat broadcast was mobilized for coordinating and broadcasting a press conference: “@Kappa |LIVE NOW| #meerkat #Décentralisation The questions/remarks will follow at the end of our press conf – live: <https://mrk.tv/>” (Kappa, Twitter/Meerkat mashup message). The mashup acted as an “action alert” (Obar et al. 2012) and mobilized actors to participate in the event. At the same time, disorder occurred because of intervening actors, whose SM interactions are at best obscure and often nonsensical (Wilkie et al. 2015). This happens because these intervening actors were able to aggregate content in routinely odd and contrary ways to the visible flow of exchanges and therewith alter the meanings of the mashups. Hence, mashups had disordering effects by taking conversations “off track,” as the manager indicates:

We get disturbing comments all the time both on [our interactions from] Facebook and Twitter that *take us a bit off track* with claims such as “you are funded by the Mossad.” And they are *all the time visible, I mean everyone can see* the comments. And it's getting so absurd that no matter what I answer they say the same, so I should reply “yes the Mossad funds me” [laughs]. (Kappa manager interview)

Similarly, in the case of Omega, activists' efforts of generating connective action were disrupted because nonsensical interactions benefited of the same visibility affordances provided by SM, as an Omega member suggests:

They [nonsensical mashups] are always on topics where the political debates are highly polarized such as Libya where you currently have two governments claiming legitimacy. I think Twitter as a platform makes visible all sorts of conversations and trolls are part of what it means to have open conversations. But yes, such visibility works both ways. (Omega manager interview)

Furthermore, disorder also occurred due to the fleeting visibility of the interactions: when Omega stopped streaming, the video message disappeared from the access list, leaving only a “stream over” message behind. As a result, actors could not participate in the respective activity and connect with other actors, therefore not receiving details about meeting points and other necessary information. Similarly, the importance of connective affordances that base on the feature to import and export conversations across technologies was confirmed, when looking at Meerkat and Facebook, which do not allow such combined use. Here, actors were unable to connect and coordinate with each other, when relying on these specific SM. More in

detail, the visible digital interactions that exhibited ordering and disordering properties in both cases facilitated two interrelated types of data sharing that are presented next.

Integrative Content Sharing

The integration of various interactions between SM produced order by combining scattered content from multiple sites that facilitated connections between various actors. In one instance indicative of many similar situations in the case of Kappa, mashups of Facebook and Twitter interactions facilitate Kappa members' efforts of connective action by providing information about simultaneously occurring tasks despite their different geographical and temporal locations (e.g., following up fiscal legislation making proposals, signposting MPs' interventions). Integrative data sharing took place as interactions were retweeted and re-embedded in the organizational conversations of 30 actors simultaneously. In doing so, integrative content sharing ensured offline mobilization of key constituents (i.e., volunteers) at ad hoc events by connecting actors and indicating time and location coordinates (Segerberg and Bennett 2011). Yet, the interactions exhibited also disordering properties, when they allowed the integration of unwanted or deceptive content by unknown audiences. As the manager indicates next, mashups and hashtags disrupt the presumed one-to-many communication properties and the intended positive effects on connective action that SM are considered to have:

We use #FL2016 #GenLeg and #TnXYZ on both Facebook and Twitter to “*signpost*” on what project *we are working now*, so #FL2016 and #GenLeg shows that we are working on the Fiscal Law 2016 that is part of the general legislative package. We also use these hashtags because citizens use them to *search, find* information and *be part* in the democratic process with their elected representatives. But we can't really predict how hashtags *work*. . . sometimes they are of big help and sometimes not and everyone gets confused. Now and then, the hashtags *stand for something else* and *work differently* across platforms then what you'd expect. But you can't buy or control a hashtag because social media is not a media. *It's a world and it makes you as much as you make it*. And since you can't escape it you'd better be ready to deal with it. (Interview, Kappa manager, emphasis added)

Furthermore, connective affordances create order and enable SM to act as rallying and mobilizing mechanisms (Segerberg and Bennett 2011) by connecting actors and content across technologies. But equally, such affordances create disorder given that mashups can also “stand for something else,” “work differently” (manager Kappa), and enable open authorship across multiple sites. On the one hand, the #TnXYZ hashtag integrates Facebook and Twitter content (the hashtag was initially developed by Kappa managers to geo-locate their work in the house of representatives and signpost specific organizational activities in order to mobilize more support for their actions). On the other hand, the hashtag disrupts integrative sharing by permitting other actors to alter and include it in their interactions that coordinated unrelated events. Similarly, Omega members were able to use the same #TnXYZ hashtag to

share their daily news coverage activities. By posting and tweeting the hashtag, Omega members together with other actors “bec[a]me part of the conversation,” as it happened in the case of a terrorist attack at the Bardo National Museum in Tunisia:

Once #Tunisia and #TnXYZ started *trending* that day on Twitter and Facebook, we had to use them everywhere although they weren’t our hashtags. So you use what hashtags are used in that day. *This is what you have to do if you want to be part of the conversation* along with international channels such as Al Jazeera. When people were looking for the Bardo attack on the tourists the only thing they would find is #TnXYZ and #JesusTunisien, which was started by Tunisian activists in our network, so I use those. But everyone else does it too, which makes things a bit chaotic sometimes. (Interview, Omega manager)

The SM used in both Omega and Kappa are not simple means or products of interactions and discourses of human collectives (Fayard and Weeks 2007). Instead, the agency of the interactions is dependent on both their material features and situated use. It is therefore the distributed use that enables connective action in specific situations, such as the algorithmic operation of “trending.” Such mashups gain traction based on the non-human agency of an algorithm that promotes in some arbitrary manner hashtags that suddenly dramatically increased in volume (Wilkie et al. 2015). The agency of the interactions resides thus in their interconnected use by both human and non-human actors (hashtags, algorithms, etc.). In doing so, integrative content sharing creates order for Omega, Kappa, or new actors, such as the community of followers contributing to #TnXYZ, for that matter. However, additional to the disordering effects due to information overload and misappropriation of the combined interactions described above, Twitter and Facebook interactions cannot be exported on the Meerkat platform. Thus mashups are impeding both Omega and Kappa members from relying on combined interactions to coordinate for activism.

Instantaneous Content Sharing

Sharing content at high speed is a daily practice in Omega and Kappa, which aim at real-time coordination. Omega managers engage with an average of ten times a day “tweeting,” “posting,” “streaming videos,” and “hashtagging,” across multiple SM with several hundreds of followers. Mashups generate order, when they enable actors to manage ad hoc activities, share relevant data, and connect to key audiences instantly:

We use the Facebook messenger for practical things, [be]cause it’s fast and convenient. But we mix up social media for our work. People *follow us* on Twitter and like our Facebook page because they are interested in what we have to say. . .uhm. . .so *we tweet* and *at the same time post* on Facebook, *do hashtags* and *share videos* a lot across platforms. . .[uhm] about things people care about. This way *we show* what is going on. (Omega manager, interview, emphasis added)

Similarly, in the case of Kappa, Facebook and Twitter interactions (“sharing,” “tweeting,” and “posting”) create mashups that facilitate instantaneous content sharing. On the one hand, mashups allow Kappa’s members the ability to connect with unknown audiences “on the spot” and share information about activities such as making recommendations on bills in the same time as these are promulgated by the parliament. On the other hand, the mashups give the ability to be in “real-time” control of constituents, as the manager indicates:

The [Tunisian] parliament only audio-records the meetings but the records are not immediately available to the citizens. So, we have a team in the parliament measuring attendance of deputies, *posting* on our social media all the sessions planned, all the votes. Like this we give those interested in the accountability of elected representatives the chance to *be in real time control* of their votes in the assembly. We basically *tweet* and *post everything* the MPs say, pictures, videos, you name it, everything from the moment the parliament session is opening in the morning until the evening when the doors close. . .uhm. . .like showing misbehavior or so on. *By doing this. . .uhm. . . every day. . .uhm. . .we are able to make recommendations on the spot* for the assembly that is preparing the bill that day. (Interview Kappa manager, emphasis added)

The capacity of quickly transporting interactions across different SM and thereby creating mashups contributed to the immediate synchronization of actions among connected activists, since it provided information about “where and when are we meeting that day” (interview manager Kappa). For instance, in the case of Kappa, a Facebook interaction mashed up with a link to the Twitter account, and #TnXYZ permits Kappa members to signal the time and location of their work in the house of representatives. In addition to the instantaneous coordination of work tasks, the mashup also upholds the mission of the organization across different physical and virtual locations: “@Kappa we are back for the plenary this evening. Our mission, we are leading to the end #TnXYZ.” In doing so, the mashup communicates and generates awareness about “who we are and what we do” (interview manager Kappa).

Nevertheless, instantaneously combined interactions create also disorder for connective action. For instance, instantaneous data sharing at high speed led to data overload and confusion, which stopped individuals – even though connected – from obtaining relevant information or participating in certain events, as the manager indicates: “[w]e work hard to get the message out the right way but we often get feedback from our interns and volunteers such as ‘these hashtags are flooding our timelines’” (manager Omega interview). In the case of Kappa managers, mashups exhibited disordering properties because of the overwhelming speed with which these work: “@Kappa where can we find information about the plenary session of today? I follow #FL2016 but the info went too quickly among all sorts of stuff. Which is the room number?” (tweet Kappa manager). The importance of connective affordances that enable integration of content across technologies for connective action was confirmed by the fact that Facebook interactions do not aggregate with Meerkat ones, which restricted the emergence of mashups and

disrupted the ability of both Kappa and Omega to engage in connective actions when they relied only on these technologies for coordination purposes.

In sum, in both Kappa's and Omega's case, SM use is indicative of the distributed agency specific to connective action. When it comes to SM, not only what humans do with SM is important, but also the actions of non-human actors such as hashtags are highly relevant. The chapter has shown how instantaneous and integrative content sharing specific to SM combined use has ordering and disordering effects for connective action.

Future Directions

Literature that looks at the role of SM for connective action typically studies how individuals use SM as tools for disseminating information and creating new modes of participation and organizing (Lee and Chan 2016; Segerberg and Bennett 2011). By adopting a socio-material and affordances lens on connective action (Vaast et al. 2017), this chapter has shown how these connective affordances, by enabling data mashups, facilitate connections between these actors and analyzed the outcomes of data sharing practices that are shaped by both human and material agency.

Accordingly, the presented study enriches the understanding of data sharing practices and digital activism, in which human and non-human actors are tied together (Leonardi 2017). The chapter shows how connective action depends as much on similar patterns of SM use by human actors, as much as it does on material agency of non-human actors. Overall, the chapter indicates that two kinds of effects are introduced through instantaneous and integrative content sharing practices, specifically: (a) ordering effects that stem from distributed material and human agency that makes it possible for communication and organization to exist in a virtual time and space without disrupting the routines of the connected actors and (b) disordering effects which are equally generated by human and non-human agencies that omit and disassociate actors from interactions, thus disturbing connective action.

The introduced theoretical framework therewith accounts for the multiple use of intertwined technologies, which has so far only gained little attention in current research (Leonardi 2017). Indeed, research typically looks at the use of one SM technology at the time (for an overview see Treem and Leonardi 2012). The complex combination of multiple SM use, instead, requires an understanding of the relationship between these technologies and the various actors, which apply them. The proposed theoretical framework made it possible to understand these relationships and conceptualize the connective affordances that account for the interplay between the practices that humans apply on multiple technologies and the material features that these technologies offer. In doing so, the framework enabled an analysis of affordances on collective level, of how multiple SM use creates connections between different actors, and of how the resulting mashups affect connective action.

In contrast to many studies that are pervaded by a mostly positive or even enthusiastic tone about the effects of connective actions through SM

use (e.g., Segerberg and Bennett 2011), the chapter has, next to ordering effects, detected the disordering effects of multiple SM in digital activism. Indeed, combined interactions across technologies help but also often restrain actors to organize across physical and virtual settings. When actors modify interactions, mashups act back simultaneously in often uncontrollable and unintended ways while being appropriated by various actors. In fact, connective affordances allow appropriation by actors that may intentionally disturb organizing processes. Furthermore, disorder may be introduced without bad intentions, when instantaneous content sharing leads to information overflow or when integrative content sharing makes a certain hashtag that takes a different direction than intended. Hence, by acknowledging agency of non-human actors, the chapter shows how disorder occurs because combined interactions produce unprompted change driven by fluid collectives (Yoo 2012).

In sum, this study contributes to existing research in two ways: on the one hand, it reveals that SM interactions are entities irreducible to humans or human communication and have both ordering and disordering effects. On the other hand, it indicates that combined interactions introduce connective action across multiple spatiotemporal localities and SM platforms. While the case study examined three of the most popular SM technologies in a specific country context, these practices are feasible between other SM. As the study shows, SM are not stable but vacillate depending on the situated interactions between both human and non-human actors. Thus, the material and organizational world created by these technologies does not exist separate from the people communicating with them. Instead, organizing happens through heterogeneous and conflicted socio-material practices mediated by both human and non-human actors.

The chapter offers a particular view of the combined use of multiple SM in a particular context (Tunisian CSOs) and for a distinct period of time. With the limitation of interconnected Facebook, Twitter, and Meerkat uses, the study covers three of the most popular SM currently in use. Future technological developments of these and other tools will possibly result in other forms of interaction. For example, Facebook recently introduced the live stream function that opens up new possibilities and at the same time renders hybrid use with Meerkat less important. Nevertheless, this chapter provides relevant and generalized knowledge concerning the role of non-human actors, such as algorithm-based hashtags, and the crucial role of connective affordances that connect actors, interactions, and content across SM. The results that emerge from the chapter can be transferred if there are common characteristics between the cases in focus. Furthermore, the presented analysis of SM uses in a politically unstable environment such as Tunisia can act as a springboard for future research to validate or challenge the results of this case through a longer examination of the struggles and dynamics introduced by SM in organizations that rely on such technologies for accomplishing everyday work, such as medium enterprises and start-ups. This is particularly important as such tensions tend to be rendered invisible by the search for coherent and unitary answers.

Conclusion

This chapter has investigated the use of intertwined SM technologies by drawing on affordances theory and an ethnographic study. The chapter advances research by providing insights concerning how the combined SM use generates connective action through mashups, in which multiple actors are tied together. Firstly, the chapter identifies connective affordances that are particular to the interplay between multiple SM technologies and human actors, and allow integrative and instantaneous content sharing, which rests on the socio-material feature of “exporting” and “importing” content across platforms. Such connective affordances allow the creation of mashups, i.e., mutable interactions, which emerge from multiple and disparate locales. Secondly, the analysis has shown how mashups develop not only ordering but also disordering effects, whereby the socio-material relationships between various human and non-human actors and their distributed agency have a crucial role for how these effects play out. The developed framework may support future research that aims at investigating organizing practices through SM, which takes human and non-human actors equally seriously.

Cross-References

- ▶ [Communication Campaigns for Social Change](#)
- ▶ [Protest as Communication for Development and Social Change in South Africa](#)

References

- Abbruzzese J (2017) Twitter’s ‘LasVegas’ hashtag fail shows the worst part of algorithms. <http://mashable.com/2017/10/03/twitter-algorithm-fail-las-vegas/#nvynexnERPqr>. Accessed 11 Oct 2017
- Agrawal A, Catalini C, Goldfarb A (2014) Some simple economics of crowdfunding. *Innov Policy Econ* 14(1):63–97
- Aouragh M, Alexander A (2011) The Arab spring| the Egyptian experience: sense and nonsense of the internet revolution. *Int J Commun* 5(1):1–15
- Aral S, Walker D (2014) Tie strength, embeddedness, and social influence: a large-scale networked experiment. *Manag Sci* 60(6):1352–1370
- Asur S, Huberman BA (2010) Predicting the future with social media. In: *Web Intelligence and Intelligent Agent Technology (WI-IAT)*, 2010 IEEE/WIC/ACM international conference, vol 1. IEEE, Washington DC, pp 492–499
- Bennett WL, Segerberg A (2012) The logic of connective action: digital media and the personalization of contentious politics. *Inf Commun Soc* 15(5):739–768
- Campbell KK (2005) Agency: promiscuous and protean. *Commun Crit/Cult Stud* 2(1):1–19
- Charmaz K (2006) The power of names. *J Contemp Ethnogr* 35(4):396–399
- Deuze M (2012) People and media are messy. *New Media Soc* 14(4):717–720
- Dobusch L, Schoeneborn D (2015) Fluidity, identity, and organizationality: the communicative constitution of Anonymous. *J Manag Stud* 52(8):1005–1035
- Eltantawy N, Wiest JB (2011) The Arab spring| Social media in the Egyptian revolution: reconsidering resource mobilization theory. *Int J Commun* 5(1):18–40

- Fayard AL, Weeks J (2007) Photocopiers and water-coolers: the affordances of informal interaction. *Organ Stud* 28(5):605–634
- Flyverbom M (2016) Transparency: mediation and the management of visibilities. *Int J Commun* 10:110–122
- Fulk J, Yuan CY (2013) Location, motivation, and social capitalization via enterprise social networking. *J Comput-Mediat Commun* 19(1):20–37
- Gillespie T, Boczkowski PJ, Foot KA (2014) *Media technologies: essays on communication, materiality, and society*. MIT Press, Cambridge, MA
- Goffey A (2008) Algorithm. In: Martin F (ed) *Software studies: a lexicon*. MIT Press, Cambridge, MA, pp 15–20
- Herrera L (2014) *Revolution in the age of social media: the Egyptian popular insurrection and the internet*. Verso Publishing, London
- Jackson MH (2007) Fluidity, promiscuity, and mash-ups: new concepts for the study of mobility and communication. *Commun Monogr* 74(3):408–413
- Kallinikos J, Leonardi PM, Nardi BA (2012) *The challenge of materiality: origins, scope, and prospects. Materiality and organizing: social interaction in a technological world*. Oxford University Press, Oxford
- Lee FL, Chan JM (2016) Digital media activities and mode of participation in a protest campaign: a study of the umbrella movement. *Inf Commun Soc* 19(1):4–22
- Leonardi PM (2017) The social media revolution: sharing and learning in the age of leaky knowledge. *Inf Organ* 27:47–59. <https://doi.org/10.1016/j.infoandorg.2017.01.004>
- Leonardi PM, Barley SR (2008) Materiality and change: challenges to building better theory about technology and organizing. *Inf Organ* 18(3):159–176
- Leonardi PM, Nardi BA, Kallinikos J (2012) *Materiality and organizing: social interaction in a technological world*. Oxford University Press on Demand, Oxford
- Leonardi PM, Huysman M, Steinfield C (2013) Enterprise social media: definition, history, and prospects for the study of social technologies in organizations. *J Comput-Mediat Commun* 19(1):1–19
- Lovejoy K, Saxton GD (2012) Information, community, and action: how nonprofit organizations use social media. *J Comput-Mediat Commun* 17(3):337–353
- Makhortykh M, Lyebyedyev Y (2015) SaveDonbassPeople: Twitter, propaganda, and conflict in Eastern Ukraine. *Commun Rev* 18(4):239–270
- McKenna B, Myers MD, Newman M (2017) Social media in qualitative research: challenges and recommendations. *Inf Organ* 27(2):87–99
- McPherson E (2015) Advocacy organizations' evaluation of social media information for CSO journalism: the evidence and engagement models. *Am Behav Sci* 59(1):124–148
- Meraz S, Papacharissi Z (2013) Networked gatekeeping and networked framing on # Egypt. *Int J Press/Politics* 18(2):138–166
- Milan S (2015) From social movements to cloud protesting: the evolution of collective identity. *Inf Commun Soc* 18(8):887–900
- Murthy D (2011) Twitter: microphone for the masses? *Media Cult Soc* 33(5):779–789
- Obar JA, Zube P, Lampe C (2012) Advocacy 2.0: an analysis of how advocacy groups in the United States perceive and use social media as tools for facilitating civic engagement and collective action. *J Inf Policy* 2(1):1–25
- Rane H, Salem S (2012) Social media, social movements and the diffusion of ideas in the Arab uprisings. *J Int Commun* 18(1):97–111
- Salge C, Karahanna E (2016) Protesting corruption on Twitter: is it a bot or is it a person? *Acad Manag Discov*. <https://doi.org/10.5465/amd.2015.0121>
- Scott SV, Orlikowski WJ (2014) Entanglements in practice: performing anonymity through social media. *MIS Q* 38:873–893
- Seegerberg A, Bennett WL (2011) Social Media and the Organization of Collective Action: using Twitter to Explore the Ecologies of Two Climate Change Protests. *Commun Rev* 14(3): 197–215. <https://doi.org/10.1080/10714421.2011.597250>

- Thom-Santelli J, Muller MJ, Millen DR (2008) Social tagging roles: publishers, evangelists, leaders. In: Proceedings of the SIGCHI conference on human factors in computing systems. ACM, New York, pp 1041–1044
- Tracy SJ (2013) Qualitative research methods: collecting evidence, crafting analysis, communicating impact. Wiley-Blackwell, USA
- Treem JW, Leonardi PM (2012) Social media use in organizations: exploring the affordances of visibility, editability, persistence, and association. *Commun Yearb* 36(1):143–189
- Vaast E, Safadi H, Lapointe L, Negoita B (2017) Social media affordances for connective action—an examination of microblogging use during the Gulf of Mexico oil spill. *MIS Q* 41(4):1179. <https://doi.org/10.25300/MISQ/2017/41.4.08>
- Wasserman S, Faust K (1994) Social network analysis: methods and applications, vol 8. Cambridge university press, Cambridge, UK
- Wilkie A, Michael M, Plummer-Fernandez M (2015) Speculative method and Twitter: bots, energy and three conceptual characters. *Sociol Rev* 63(1):79–101
- Yardi S, Golder SA, Brzozowski MJ (2009) Blogging at work and the corporate attention economy. In: Proceedings of the SIGCHI conference on human factors in computing systems. ACM, Boston, MA, pp 2071–2080
- Yoo Y (2012) Digital Materiality and the Emergence of an Evolutionary Science of the Artificial in Materiality and Organizing: Social Interaction in a Technological World. Oxford University Press, New York, pp. 134–154