Extending the DART model for social media

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Abstract: The DART framework is one of the most appreciated theoretical arguments about the co-creation of new products and services by firms with the support of customers. In the internet age, companies very often started using web and social media in order to develop and/or design their new products and services with the support of users. This spread innovation approach made the DART framework somehow incomplete (at least for this form of co-creation) owing to its scant attention to technology. The aim of this study is to extend the traditional DART framework with a fifth dimension: technology management. The study reports the case of ‘Lost in Google’, a web-series of an Italian independent video-making company. The analysis shows that technology management is equally as important as the other four dimensions in order to manage properly co-creation by social media. A revised version of this model (DARTT) should fit better for the understanding of this phenomenon.

Keywords: co-creation; social media; innovation; users co-creation; technology management; DART model.


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Co-creation is one of the central propositions of ‘service dominant’ logic (Vargo and Lusch, 2004). The dialogue, access, risk assessment, transparency (DART) framework by Prahalad and Ramaswamy (2004a, 2004b) is one of the most appreciated theoretical arguments about the co-creation of new products and services by firms with the support of customers.

In the internet age, companies very often started using web and social media in order to develop and/or design their new products and services with the support of users. A number of theoretical and empirical articles by both marketing and innovation scholars (Cova et al., 2007; Sawhney et al., 2005) stresses that customers can aggregate digital platforms and form online communities of practice (Wenger, 1998) or communities of creation (Sawhney and Prandelli, 2000), co-developing innovations with companies.

The diffusion of this innovation approach highlights some weaknesses of the traditional conceptualisation of the DART framework. Virtual environments, such as internet and social media, radically change the process and characteristics of interaction between firms and customers during co-creation (Ortt and Smits, 2006; Rothwell, 1994; Sawhney et al., 2005). Typical phenomena of social media (such as crowdsourcing) show that co-creation is more problematic in digital environments than in physical environments. Although at least three of the four building blocks of the DART model are closely related to (and cannot function without) technology, its centrality is underestimated by this model. This lack is particularly critical when co-creation of value and innovation occurs in virtual environments such as social media.

An effective exploitation of these virtual platforms for co-creation entails the implementation of various specialised managerial and technological competencies and knowledge, such as dialog, access, transparency and risk assessment. Therefore, these are likely to play a critical role.

The aim of this study is to extend this model with a fifth dimension: technology management. In this paper we argue that an effective exploitation of social media for co-creation requires companies to manage and exploit technology as a strategic asset, not simply use it as an infrastructure of communication with (and between) customers (as indirectly assumed by the traditional DART framework).

The research question of this paper is: how does technology management support co-creation by social media? The study reports the case of The Jackal, an Italian independent video-making company run and managed by young entrepreneurs. The analysis shows that technology management is equally as important for companies as the
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other four ‘building blocks’ described by Prahalad and Ramaswamy in order to manage properly co-creation by social media. The revised version of the model proposed in the paper (DARTT) fits better for the understanding of this phenomenon in digital environments.

The paper is organised as follows: the next section reviews the main literature about co-creation by social media, the DART model and its weakness for this specific context of application. Section 3 reports a case study of this phenomenon in social media. Section 4 develops a discussion about the main theoretical insights emerged from the case. Section 5 summarises the conclusions and the main managerial implications.

2 Literature review

2.1 Co-creation by social media

Co-creation of value has become a very common phenomenon over recent years. Customer co-creation “involves collaborative activities that actively engage customers in the design and development of new innovations” [Mohr and Sarin, (2009), p.90]. Co-creation also became a rising practice for branding over the last few years (Hatch and Schultz, 2010). The support and participation of customers in the innovation activities of firms is not a new phenomenon at all. von Hippel (1986) coined the notion of lead users to describe those special customers who support the company in new product development due to their specific technological needs.

The internet has been always a key technology for both customer aggregation and co-creation of innovation. Users very often participate in virtual communities in order to co-create innovative products and services with companies. Co-creation in virtual environments differs from co-creation in physical environments. Indeed, the use of the internet as a platform for co-creation implies that (Sawhney et al., 2005):

1. the role of customer is active
2. interaction is bidirectional and continuous
3. social and experiential knowledge is dominant in this process
4. interactions are directed and mediated with prospective and potential customers.

Consumer tribes (Cova et al., 2007) may go further than simple collaboration to become significant actors in a company’s innovation process. This concept is similar to the notion of community of practice (Wenger, 1998) and refers to a group of individuals sharing a common passion (e.g., for a technology, a brand, a product). Consumer tribes can participate not only in the new product development and but also in the commercialisation of the co-created product, as shown by the tribe of Firefox users which co-create continuously the new versions of their beloved internet browser. This was the same logic applied by Sun for its Jini project, in which a community of creation composed of users autonomously developed product innovations under the hierarchical control of the company (Sawhaney and Prandelli, 2000).

Social media largely promoted the co-creation of value and innovation (Sawhney et al., 2005). Within customer co-creation process, the use of social media represents a great opportunity for firms, allowing to engage in timely and direct consumer contact at
relatively low cost and achieve higher levels of efficiency than are possible with more traditional communication tools, increasing user involvement and engagement in the innovation process (Jespersen, 2010; Piller et al., 2012). Digital environments bring about social dynamics and phenomena that boost and support co-creation. For instance, scholars found that situated creativity (Potts et al., 2008) is a critical source for co-creation in social media. This notion is an extension of the concept of situated knowledge and refers to the creativity situated in localised and contingent systems of social interaction and not the creativity exclusively held by an individual (Potts et al., 2008). Similarly, crowdsourcing is another typical phenomenon in social media with critical implications for co-creation. Crowdsourcing is “the process of outsourcing activities by a firm to an online community or crowd in the form of open call” [Whitla, (2009), p.15]. Social media brings about a collective, democratic process of co-development of innovation and value. All the subscribers of a social network can participate very easily and affect the final outcome of the co-creation process.

2.2 The DART framework

Co-creation makes obsolete the firm-centric vision of value and innovation. The locus of value creation is in the customer-company interaction. Co-creation is not outsourcing of some production or innovation phases to the customer or customisation of products or services.

The DART model by Prahalad and Ramaswamy (2004a, 2004b), summarises the process of value co-creation for innovation in four critical ‘building blocks’ of the consumer-company interaction:

1. **Dialogue**: this element “implies interaction, deep engagement and the ability and willingness to act on both sides” [Prahalad and Ramaswamy, (2004b), p.9].

2. **Access**: the first condition is based on the access to information for customers. Co-creation would be ineffective if customers were not able to access to critical information about products.

3. **Transparency**: it refers to information sharing, the lack of information asymmetry between the company and customers. This building block is a compulsory precondition for both dialogue and access to information.

4. **Risk-benefits assessment**: co-creator customers have a clearer understanding of corporate products by dialog, access, and transparency. Therefore, customers will be able to assess much better the potential risks and benefits of goods and services.

The DART model is based on the assumption that the market is not anymore a ‘target’ but a forum for co-creation experiences by which firms and customers exchange information about new products and services. Companies should provide an experience environment built on these elements to co-create value and develop innovations. Time, space and events are critical dimensions in order to personalise the experiences of customers. The products can be commoditised but the co-creation experience is personalised. Experiences of co-creation are the basis of value. Every customer decides how to interact with the company in a specific way. However, the authors argue that personalisation of experiences does not limit the possibility of aggregation of customers. Communities of customers are critical for co-creation.
The dialogue building block is not an overlapping component but a precondition of technology management in every industry. The needs of communication and interaction between users and companies for co-creation make technology management a critical asset. Co-creation cannot be successful if the organisation does not establish and manage effective technological channels (e.g., web-platforms) to dialogue with its customers.

The adoption of such a model within firms implies a radical reconfiguration of the organisation. Infrastructure, functional and governance capabilities are required. Managers must begin socialising with customers. As argued by Payne et al. (2008), to date the DART framework is one of the very few theoretical models in marketing literature supporting companies in the management of the co-creation processes.

2.3 The limits of the DART framework for the understanding of co-creation by social media

Dialogue, access, transparency and risks assessment are, at first sight, satisfactory elements for the understanding of value co-creation by social media. They are perfect technological infrastructures in order to foster dialogue and access and to reduce any potential risk of information symmetry between firms and customers. Social media is “a group of internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content” [Kaplan and Haenlein, (2010), p.61]. Viral marketing campaigns often are co-created by social media. Companies exploit them to communicate with customers and plan (Miller and Lammas, 2011). Typical types of social media are collaborative projects (e.g., wikipedia), blogs, content communities, social networking sites, virtual game worlds, virtual social worlds. All these types of media differ in terms of social presence and/or self-presentation of users.

However, the original framework by Prahalad and Ramaswamy might be less powerful in this context. The DART model pays little attention to the role of technology. Authors argue, very generally, that “transparency and access are of little value if the firms do not create the infrastructure for dialog. This requires investment in technology [...]” [Prahalad and Ramaswamy, (2004b), p.13].

Conversely, the centrality of technology in social media makes this asset more than a simple infrastructure for dialogue, access and transparency. Facebook, YouTube and Linkedin are more than a technological platform by which customers have personalised experiences of co-creation with companies. The rise of crowdsourcing shows that co-creation by social media is likely to be a phenomenon based on firm-customer relationships much more complex than was proposed in the DART Model. In the music industry, internet and technology support the co-creation of songs by the crowdsourcing of online communities of music fans (Moisio and Rokman, 2011).

Another evident limit of the original DART framework for the understanding of co-creation by social media refers to the model assumption about the personalisation of co-creation experiences by customers. In network-intensive environments, as in social media, this personalisation of the customer experience is necessarily affected by the relationships of customer A with customers B and C. For instance, the development of situated creativity by users can be governed just partially by firms. Social media are based on ‘many-to-many’ relationships between customers. Such relationships between users might not allow the establishment of personalised co-creation experiences for customers.
The DART model assumes that the co-creation experience occurs in a specific and goal-oriented environment. Instead, social networks are often environments in which different layers of experiences compete against each other in order to receive the interest of users. Social media are platforms which are not solely devoted to co-creation with an organisation. These are media in which different flows of information and knowledge occur by social relationships between users (Kaplan and Haenlein, 2010). Moreover, the different types of social media above mentioned imply the organisation managing a successful co-creation process that should hold a variety of different technological competencies specific for each type.

In summary, companies must hold effective technological capabilities in order to analyse customers’ behaviour, to get their attention within the social network and make them collaborate actively to the innovation process.

Figure 1 A DARTT model for co-creation by social media, (a) the original model (Prahalad and Ramaswamy, 2004b) (b) the revised model (see online version for colours)

Technology becomes a strategic asset for an effective process of co-creation of value. This argument outlines the inclusion within the DART framework of a fifth dimension: technology management.

Technology management practices have traditionally been measured by the level of technology management sophistication (i.e., the extent to which technology planning, organisation, control, and integration are carried out in a firm) and a technology leader’s role within a firm [Raghunathan and Raghunathan, 1989; Sabherwal and Kirs, 1994; Karimi et al., 1996; Karimi et al., (2001), p.127]. Karimi et al.’s (2001) study has shown that significant differences exist in the technology management practices among firms and that these differences are dependent on the degree to which technology plays a role in transforming customer service in these firms. Literature on ‘technology capabilities’ also emphasises ability to “mobilize and deploy IT-based resources in combination or copresent with other resources and capabilities” [Bharadwaj, (2000), p.171] to enhance performance. In fact, technology capabilities are defined as the extent to which an organisation is equipped with technology infrastructure, has technology experience and is effective in technology utilisation (Tippins and Sohi, 2003). Technology management is
defined here as the abilities to aggregate customers and engage them, to carry out actions through social media that encourage them to make contributions and support their active participation.

Technology management becomes a critical issue in order to effectively exploit social media and the situated creativity of users. Furthermore, firms can learn about users’ preferences just by technology when social media are used. This evidence has several organisational and strategic implications. This argument entails the revision of the framework name in ‘DARTT’ (see Figure 1).

3 Case study

Data were collected using a qualitative methodology (e.g., Yin, 1984; Benbasat et al., 1987). We conducted a qualitative analysis based on case-study methodology in order to collect data on a particular video-making company: The Jackal. According to Benbasat et al. (1987), “case methodology is clearly useful when a natural setting or a focus on contemporary events is needed” (p.372). Furthermore, our decision to select just one case is agree with Yin’s research, who assumed “to confirm, challenge or extend a theory, there may exist a single case” (p.42). The Jackal is a critical case for testing an extended model (DARTT model) based on a well-formulated theory (DART framework), resulting particular suitable to our research design.

As suggested by the qualitative research literature (Yin, 1984; Benbasat et al., 1987; LeCompte et al., 1993; Seidman, 2006), the analysis was conducted using both ethnographic interviews and document analysis techniques. In particular, firstly we conducted a preliminary interview with one of its young entrepreneurs in order to get general information about the company. Afterwards, we carried out two semi-structured interviews with company founders to obtain more information about organisation and its ways of working with technology. Furthermore, we collect some important information useful to better understanding this case by analysing The Jackal websites, the company’s pages in various social media, and other e-documents available on web.

3.1 A video-making company: The Jackal

‘The Jackal’ is an Italian company dedicated to video-making, viral marketing, and musical video-clips activities. The company is run and managed by young entrepreneurs whose age is between 23 and 25 old years. Founded in 2005 in Naples as an independent video-making group, The Jackal was founded by five young persons who share a passion for cinema and everything related to the audiovisual world. The name derives from looting actions undertaken by group members towards seventh art and web culture aiming to reinvent or simply tell the outside stimuli by short films and fake trailers.

About this, one of them argued,

“Since childhood, we have always been lovers of cinema. We were lucky enough to meet at middle school, where we started to share and to cultivate our passion making parodies with old VHS cameras. At first, we started through petty theft stalking and forcing to participate some famous Italian actors such as Alessandro CecchiPaone and Alessandro Gassman. Overtime, we began to make plans and scripts in order to seek the involvement of VIPs from the beginning. For example, the Italian actor Lino Banfi agreed to shoot some
sketches of ‘Ilcamorristanelpallone’\(^3\), a satirical short film that made known ‘Calciopoli’, the recent scandal of Italian Football.”

The passion characterising the initial work of these young entrepreneurs led them over time to other areas of audiovisual production and evolved into a true profession. In 2007, this independent group decided to create a YouTube Brand Channel\(^4\) in which to upload their productions such as shorts films and fake trailers. YouTube Channel is a channel specifically designed to help companies in building their brand and keeping their audience engaged. It allows companies to connect and create persistent relationships with their consumers. Moreover, the company has also decided to create a Facebook Page\(^5\) and Twitter account in order to communicate and keep in touch with fans. Owing to use of these social media, the success of The Jackal has grown significantly overtime. The Jackal fans have created a community that, apart from watching video on the web, often play an active role in short films’ production. The short film Vandammovs 2012\(^6\) and the web-series ‘Lost in Google’\(^7\) are some examples. Moreover, some companies have decided to sponsor The Jackal’s short films by contributing to the purchase of film equipment or by covering other expenses necessary for the films’ production.

In May 2011, The Jackal became a video-making company, one of the few firms that provides its services only on the web. In particular, the production of The Jackal might be collected into three categories:

1. trash/short, containing comic short films and fake-trailers
2. viral/commercial, containing viral and commercial advertising
3. music video clips, containing famous video music.

Nowadays, The Jackal has more than 76,000 Facebook likes, 10,000 followers, and 80,000 YouTube subscribers, while their productions have been watched more than 10,000,000 times.

Francesco Ebbasta, one of the young company founders, was interviewed about the fast and unexpected success of The Jackal production and stated:

“Our experience shows how the web, and social media in particular, makes known firms and personalities completely unknown before, improving the brand reputation and increasing profit. Using social media, such as YouTube and Facebook, we were able not only to get our customers providing our web services, but also to involve them into short films production. The use of these media is changing the traditional way of making films; people who watch films cannot be considered as mere spectators, but they contribute actively to film planning and production. We made interaction and communication between customers and us and between customers themselves the key to our success.”

3.2 The Jackal fans as a part of the co-creation process

The Jackal represents the desire of its founders to share a common passion. From 2005 to 2011, The Jackal was simply an independent video-making group whose aim was to have fun making movies rather than working to make money. Francesco Ebbasta stated:

“The turning point was in 2007, when we decided to create a YouTube Channel to share our short films. Due to YouTube, our videos were watched by many people and we become famous in a short time. We are turning our passion into money, but without realising it. We never thought about it as work until we realised that’s what we were already doing. However, YouTube and Facebook
have allowed people not only to let us know, but also to interact and to communicate with us moving from viewers to players and contributing actively to film production.”

This different approach to film-making began as a result of media usage. In 2007, fans of The Jackal who had followed short films on the YouTube Channel decided to create a virtual community. The Jackal owners tried one more time to involve and to engage the virtual community in their various productions, aiming to provide short films that could better meet viewer liking. For example, during the production of Vandammovs 2012, the superhero will have to save the Earth from the end of the world as the Mayans’ prophecy foretold, The Jackal decided to involve the community, asking members to make short films that would show how Vandammo can save humanity. Short films received were used by The Jackal to write the script of Vandammovs 2012, making a good and useful collection of ideas on which to base the production. In this way, community members not only watch movies on YouTube, but they play an active role in video-making activities contributing to The Jackal’s production success.

Then, The Jackal decided to further involve its fans in the production of short films by using social media to collect information and ideas. Social media have allowed short film fans to interact and to communicate both with company producers and amongst each other, providing an alternative route to resolving the company’s issues. The opportunity arose immediately, with the first web-series entitled ‘Lost in Google’9. The idea was simple and ingenious: a web-series using the best fan comments. The Jackal members have directed and made episode 0 of ‘Lost in Google’, while the most original fan comments have been used to write the script of the next episodes and within the movie itself. Other fan suggestions considered fun, but not relevant to the story, were mentioned at the end of the movie. In order to collect fan suggestions a platform was created, named ‘Lost in Google fanpage’ (http://losingoogle.fanpage.it/), which embeds social media previous used such as YouTube and Facebook. In this regard, Lost in Google fans and interested onlookers have a virtual space to discuss this web series and to give useful suggestions for writing the next episode’s story, contributing actively to The Jackal production. Lost in Google has had great success. The first episode received more than 3,800 fan suggestions and 330,000 viewed, with a peak of almost 17,000 suggestions in the fourth episode.

3.3 DARTT model in the process of ‘Lost In Google’ co-creation

The Prahalad and Ramaswamy DART model summarises the process of value co-creation for innovation in four critical ‘building blocks’ of the consumer-company interaction such as dialogue, access, transparency, and risk assessment. Although these four dimensions could seem satisfactory for understanding of co-creation value, the model does not pay much attention to the role of technology, in particular in contexts which it is a strategic asset for co-creation. The revised model of DART, entitled DARTT, could better fit in contexts characterised by a pervasive role of technology. Using the DARTT model, we try to analyse the value co-creation within The Jackal company, and of ‘Lost in Google’ in particular. Figure 2 shows the DARTT model for co-creation applied to ‘Lost in Google’ web-series.
3.3.1 Dialogue

As Prahalad and Ramaswamy (2004a) have suggested, dialogue means interactivity, deep engagement and the ability and willingness to act on both sides. With reference to The Jackal, interaction and communication play a key role in video-making. In fact, fans and interested onlookers contribute actively to define the script of short films, set design and movie costumes, providing an endless source of ideas. ‘Lost in Google’ is a clear example of dialogue between company and customers and The Jackal using social media for interaction and communication among them. Owing to encouraging dialogue among various actors engaged to co-creation of ‘Lost in Google’, such as fans, interested viewers and company, young entrepreneurs have decided to use mainly social media such as YouTube, Facebook, Twitter, and the ‘Lost in Google’ fanpage. In this regard, the number of social media used is a quantitative measure of interaction and deep engagement, while their contents are a qualitative measure of social media’s contribution on ‘Lost in Google’ improvement. The contribution of social media to encourage dialogue with customers is clearly shows below in Table 1.

The contribution of work practices and procedures established is clearly shown in Table 1.
3.3.2 Access

It refers to the information firms deliver and the experiences one can create with them. Owing to the internet, geographical limits on information are eroding fast, which means that consumers can access information on firms, products or services, and technologies from around the world [Prahalad and Ramaswamy, (2004b), p.3]. The Jackal allows fans and interested onlookers full and free access to various content such as company information and company production without limitations. In particular, short films, music videoclips, and all other products are free to download both on The Jackal website and on the YouTube Channel. Moreover, press, photo gallery, news and much more information are made available on the official website of the company.

3.3.3 Risk assessment

Consumers are now more conscious and also more demanding towards firms, showing the need to be informed fully about the risks included in providing products and services (Prahalad and Ramaswamy, 2004b). In interacting with The Jackal, fans and interested onlookers have a low perception of the risk that co-creation can damage them. High levels of transparency and dialogue reduce the possible risks and support an increase of trust between company and customers. Consequently they do not demonstrate high levels of protective behaviour about privacy concerns. Fans feel that the company is ethically correct and does not collect information in order to send unrequested advertising material, for example. Relationships with fans that participate in co-creation are trusting and friendly. This situation facilitates social and resources exchange, and people are more willing to engage in cooperative interaction. The existence of these trust-based relationships reduces the risk of opportunistic behaviours.

3.3.4 Transparency

Transparency is the openness of the firm to the outside, providing information about products, services and projects. To create trust between the company and customers, transparency is necessary (Prahalad and Ramaswamy, 2004b). In The Jackal’s case, transparency almost refers to the same as access, because company websites and social media used, such as YouTube, Facebook, and Twitter are open and free for everyone without any limitation. Is possible for anyone to contact the company asking questions by e-mail or in real time by Facebook? With reference to ‘Lost in Google’, transparency is
also the practice used to show the name of fans or interested viewers who contribute their suggestions to the co-creation of web-series within the videos created.

3.3.5 Technology management

Technology management plays an important role within an organisation because it allows the understanding of the value of certain technology to create competitive advantage. For improving the co-creation process of the web-series ‘Lost in Google’, The Jackal decided to use some specific work practices and policies for management of technology.

In particular, the company recruited one person for management of online social networks, such as Youtube, Facebook and Twitter, and the ‘Lost in Google’ fanpage, whose task is to allow current fans, viewers and interested lookers into co-creation process of that web-series, as well as to recruit others. This person posts news about ‘Lost in Google’ episodes and/or other current topics everyday in order to encourage interaction between company and users and between users. Then, another person screens the best fan suggestions and submits them to an ad-hoc committee, composed of The Jackal members and some production staff members, who use the most interesting submissions to build the storyline of several ‘Lost in Google’ episodes.

Finally, The Jackal also encourages informal relationships and socialisation processes among fans and followers, organising face-to-face meetings and open parties, and using social media to spread the word. These meetings are very useful to strengthen old friendships and encourage the creation of new ones.

4 Discussion

Our study aimed to advance existing knowledge about the co-creation process supported by social media, by extending the traditional DART framework (Prahalad and Ramaswamy, 2004a, 2004b) with a fifth dimension called technology management.

The research has shown that technology management plays a critical role for effective exploitation of social media for co-creation. The centrality of technology in social media makes this asset more than a simple infrastructure of communication, as indirectly assumed by the traditional DART framework. Technology management for effective exploitation of social media for co-creation requires “a complete rethinking of the nature of management principles and practices by focusing on the design and management of customer participation platforms” [Tanev et al., (2010), p.2]. Within the co-creation process, technology management means a company’s ability to accumulate customers and engage them, to carry out actions through social media that encourage them to make contributions, and to support their active participation.

Technology management as a strategic asset to facilitate co-creation clearly emerges in The Jackal, a technology-based companies run by young entrepreneurs.

The Jackal is a company that, via social media, creates the opportunity for customers and users to use their personal knowledge, experience and skills to participate in the company’s innovation process. Customers and users take an active role in the process and co-create value with the company. In the case of The Jackal, the success of the active collaboration with customers for the purposes of innovation results from company’s capabilities in technology management. The company has developed effective practices
for supporting the engagement of customers and the governance of the relationship with and between customers.

These practices mainly foster participants’ intrinsic motivation because users experience enjoyment when participating in the co-creation process. Hedonistic pleasure may be an important determinant of co-creation behaviour, and customers contribute because they may consider the participation as an enjoyable activity, valued for its own sake, and therefore perceived as intrinsically rewarding rather than an effort (Dahl and Moreau, 2007; Füller, 2010). To encourage collaboration with fan and interested viewers, The Jackal is actively present on social media (YouTube, Facebook, and Twitter) as well as on the web (Company website and ‘Lost in Google’ fanpage). Simply creating an account is not sufficient, social media require activity in order to achieve credibility (Kaplan and Haenlein, 2010). For example, on Facebook the company constantly updates the status, posts everyday news about ‘Lost in Google’ episodes, interacts with users daily, upload photos, share jokes, etc. All these activities favour the users’ fun and enjoyment which leads them to write comments.

Social media support social interactions between the organisation and the user, but also interactions among users. The role of social media to support interactions between the organisation and the user depends on the degree of openness of the organisation and how willing it is to engage (Prahalad and Ramaswamy, 2004a). Social media, as network-intensive environments, favour interactions among users and a company can provide the necessary social resources and technical features that facilitate the creation of the user’s experience (Hsu and Lin, 2008). A positive user experience influences users to engage within social media for co-creation. Kohler et al. (2011a) examine the importance of the experience in encouraging active participation in innovation tasks within virtual world. When participants experience an inspiring, intrinsically motivating, involving and fun co-creation experience, they participate more intensely.

Moreover, users engage in order to maintain the social relationship with fellow users that are important to them personally. In particular, for ‘Lost in Google’, the choice to publish the name of fan who suggested an idea for the script within the video provides user prestige and visibility not only with the company but also within of the fan community.

Social relationships influence individual involvement, and increase the intensity with which a user perceives his/her role within the social media (Barki and Hartwick, 1994). Individual involvement has been found to increase arousal, interest, and motivation to engage (Zaichkowsky, 1985). Hsu and Lin (2008) have shown that users increase their engagement when there is a critical mass of users within the social media. The Jackal encourages informal relationships and socialisation processes among fans and followers, organising face-to-face meetings and open parties, and using social media to publicise them. For example, for the launch of the last episode of the Lost in Google web series (episode five), The Jackal has organised a closing party, inviting fans via Facebook.

Within co-creation by social media, despite the ability of all customers to provide suggestions, it is far from certain that all posted suggestions will be implemented (Nambisan, 2002). The company needs to evaluate the suggestions in an efficient way and there are many solutions to make selections in co-creation (Nambisan, 2002). For the making of ‘Lost in Google’ there are many people that provide suggestions and contributions, and for the company to manage the vast amounts of information being posted is a daunting task. The Jackal has internal resources with the task of screening for the best fan suggestions.
We believe that the technology management used by The Jackal has played an important role in value co-creation by encouraging the attendance, interaction and communication of fans and interested viewers and, thus, contributed actively to many phases of the video-making process. The success of ‘Lost in Google’ derives not only from the company’s idea to use fans for co-creating the web-series, but also from the way in which it decided to manage technology.

Despite the increased research interest in the co-creation process in virtual environments such as social media, the field is currently lacking in substantial knowledge about the effective exploitation of social media for co-creation through an appropriate technology management.

With respect to prior studies on this theme, this study offers some important contributions to the existing literature. First, this research emphasises the importance of a technology management dimension for the co-creation process supported by social media, in addition to providing empirical support for the DART framework (Prahalad and Ramaswamy, 2004a, 2004b). Original to this study is the revised model of DART, entitled DARTT, with technology management as a fifth dimension. Technology management was introduced to highlight that social media present many opportunities for companies to engage with customers in new and interesting ways for co-creation. Therefore, on one side, the research enriches co-creation literature, and on the other side, it contributes to the research stream on social media.

Second, our study shows the importance of the company’s capability ‘to affect’ customers’ behaviour within the social network, to get their attention and make them collaborate actively to the innovation process. In fact, technology management is not so much relative in creating the infrastructure of communication through investment in technology, but in developing and maintaining an engagement of customers and an active participation in co-creation.

5 Conclusions

In addition to making conceptual contributions, our research also offers some clear practical implications for organisations wishing to involve customers in co-creation by social media.

The first implication is that companies should fully understand the importance of the customer as partner in the co-creation process. If customers can add value to companies’ innovation processes, companies must be able to rethink their customer relationship management strategies.

A second implication relates to the need for managers to define plans, practices and policies for technology management to encourage customers to make contributions and support their active participation. “The critical challenge for co-creation in virtual worlds is not so much in devising the technological infrastructure, but in creating and maintaining an experience for participants” [Kohler et al., (2011b), p.786]. The effective exploitation of social media for co-creation requires that companies understand how to attract participants, how to encourage their active participation, and what events to organise during the co-creation project to support their engagement. This also suggests that organisations must take proactive measures to sustain virtual environments for
co-creation, for example to establish new organisational units, or new organisational roles or positions to coordinate and to manage virtual activities in social media.

Another implication concerns the design of the virtual environments for co-creation. Recent studies (Nambisan and Baron, 2007, 2009; Nambisan and Nambisan, 2008; Kohler et al., 2011b) explored this topic and they have shown that developers need to focus on intrinsic motivation and the ways to enhance the enjoyment of their customers.

Overall, our study should provide a foundation for future research aimed at understanding the co-creation process supported by social media. We have highlighted that technology management plays a critical role for effective exploitation of social media for co-creation. The company’s ability to accumulate customers, the definition of practices and policies to encourage them to make contributions, and carrying out actions through social media that support their active participation are strategic assets for co-creation.

References


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Notes

1 Francesco Schiavone wrote Sections 1 and 2; Concetta Metallo wrote Sections 4 and 5; Rocco Agrifoglio wrote Section 3.
2 http://www.thejackalweb.it/
3 http://www.youtube.com/watch?v=6X2aCDHFTfg.
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