

Virtual Embeddedness and Social Media as a Basis for the Relational Capital Management of new Ventures

Eleni Magdalini Vasileiadou and Magdalena Missler-Behr
Brandenburg University of Technology, Cottbus, Germany

eleni.m.vasileiadou@gmail.com
magdalena.missler-behr@tu-cottbus.de

Abstract: New forms of data storage and transfer as well as new methods to communicate, collaborate and exchange knowledge at diminishing transaction costs over the world-wide-web have revolutionised networking, knowledge creation and innovation processes in the knowledge era. Virtual embeddedness signifies the possibility to draw upon pay-per-use computing resources and a variety of customised web services and applications. The facilitated utilisation of Software-as-a-Service and in particular social media (SM) applications enables effective networking on platforms and in virtual communities in social as well as in business terms. Such networking processes lead to the accumulation of social, relational and intellectual capital, as they facilitate information and knowledge exchange, integration and creation. Since information and knowledge sharing, collaboration and socialising take virtual dimensions, opportunities and threats arise for enterprises regarding relational capital management (RCM) as well as knowledge and value creation. Most new ventures are keen on utilising SM for internal and external communication and collaboration purposes. In this context, the question of how new ventures can improve their RCM through the utilisation of innovative information and communication technologies (ICT) and SM arises. To answer this question, ventures have to grasp the potential of web technologies and SM and to assess their appropriability to achieve relationship-specific goals. They need to be aware of SM risks in order to exploit chances and avert threats which arise through SM use. In this paper, the question of how to exploit the benefits of virtual embeddedness and Web 2.0 in order to optimise the RCM of new ventures is discussed. To provide a basis for this discussion, the qualities of social and relational capital and the different forms of physical and virtual embeddedness are analysed. The utilisation of SM for RCM purposes and the implementation of a SM strategy are exemplified in the case study of a German eCommerce venture that took advantage of web technologies to build up and manage its relational capital in virtual and physical dimensions. Finally, a conceptual model describing the contribution of virtual embeddedness and SM to knowledge, value and reputation creation is proposed and illustrated by means of the case study.

Keywords: social capital, relational capital, Web 2.0, social media, new ventures

1. Introduction

The importance for entrepreneurs to draw upon social and relational capital lying within embedded network ties, such as goodwill, reputation and trust, in order to access tangible and intangible resources, to exchange information and knowledge and to create value has been discussed in a variety of papers (Shane and Cable, 2002; Packalen, 2007; Zhang et al, 2008; Hormiga, Batista-Canino and Sánchez-Medina, 2010). While most research papers concentrate on the positive effects of physical embeddedness on new ventures, Morse, Fowler and Lawrence (2007) explain how virtual embeddedness can help to overcome the *liabilities of newness* (Stinchcombe, 1965), which reflect the new ventures' lack of resources and capacities. To overcome these liabilities of newness, mostly consisting of the lack of social and financial capital, new ventures have to develop organisational systems (e.g. roles and procedures), reputation and trustworthiness and to build up their social and relational capital through target-oriented activities. Overviews and definitions of social and relational capital, physical and virtual embeddedness, innovative Web 2.0 technologies and social media (SM) serve as a basis for the identification and analysis of their benefits and risks.

After an extensive literature review, the case study of the young German eBusiness venture *Elbenwald GmbH* is presented. This case study demonstrates how the founding team exploited the advantages of using the web and developed a social media strategy to accumulate relational and financial capital. Drawing conclusions from the literature review and the observations made, a conceptual model describing the impact of virtual embeddedness on the creation of intellectual and relational capital is proposed. This model is illustrated through the analysis of the case study.

2. Social capital and relational capital

The term "social capital" (SC) stands for a very broad, amazingly elastic concept, derived from heterogeneous theoretical backgrounds such as the social, the political, the business and the organisational sciences (Woolcock, 1998: 159-161, 193-195; Nahapiet and Ghoshal, 1998: 243-245, Adler and Kwon, 2002: 17). A wide variety of anthropological, sociological, economic and political

approaches leads to an accumulation of social capital definitions that bear some common characteristics without allowing for a unique specification (Woolcock, 1998: 189; Adler and Kwon, 2002: 20; Tamaschke, 2003: 246-248). The social capital concept embraces important constructs, such as those of trust, culture, embeddedness (Granovetter, 1973, 1983, 1985; Burt, 1992, 2000), collective knowledge and innovation (Morgan, 1997; Ahuja, 2000; McElroy, 2002; Amin and Roberts, 2008), human capital (Coleman, 1988; Dinda, 2008) and intellectual capital (Nahapiet and Ghoshal, 1998; McElroy, 2002).

SC consists of a social structure and cultural context that shapes and influences social and economic actions of embedded actors through the development of expectations and norms (Coleman, 1988; Putnam, 1995). SC stands for '*...features of social life - networks, norms, and trust - that enable participants to act together more effectively to pursue shared objectives*' (Putnam, 1995: 664). Coleman identifies '*...obligations and expectations, which depend on the trustworthiness of the social environment [solidarity], information-flow capability of the social structure [information] and norms accompanied by sanctions [influence]*' as forms of social capital (Coleman, 1988: 119). SC comprises opportunities and obligations, reciprocity norms, privileged access or exclusion from information and financial credit, as well as social status, image, reputation and trust. SC is embodied in relations of actors and their networks (figure 1), formed by ties (figure 2) and nodes.

The conflicted term "capital" can be viewed both as a *metaphor* and a *mechanism* (Tamaschke, 2003: 250), as the high degree of intangibility and appropriability of social relationships implicates that they can be purposefully utilised to obtain future benefits. SC cannot be exclusively owned or measured and can easily be destroyed, as it lies in the space between acting entities, in network ties as well as in the structural holes between them (Burt, 1992). Social capital can be used in a productive way, but also needs to be maintained and renewed, which means that resources have to be invested in communication and collaboration activities, socialising and networking. SC influences '*...outcomes policy makers are concerned with, namely: economic growth, social inclusion, improved health and more effective government*' (Harper, 2001: 4) as well as the success of actors that can draw upon their relationships to reach their goals. Especially through providing access to tangible as well as intangible resources and thus to financial and intellectual capital, SC is regarded as a factor that contributes to an actor's or venture's success in most fields of organisational research. SC is regarded as a success factor for inter-firm learning and knowledge creation, collaborative innovation, career establishment and entrepreneurship, and especially for the formation of start-ups and the growth of new technology-based ventures (Adler and Kwon, 2002: 17).

Different approaches to define SC have focused on the substance, sources and effects of social capital for individual as well as collective authors. SC *substance* is '*the goodwill that is engendered by the fabric of social relations that can be mobilized to facilitate action*' (Adler and Kwon, 2002: 17). SC *sources* reside in the social structure. Opportunities, motivations and abilities that lead to social and economic transactions and to the enactment of private or communal goals are developed in that structure. Solidarity, information and influence made available through social relations result to both *positive and negative effects*, as SC encompasses *benefits and risks* (Adler and Kwon, 2002). The development of SC, taking place as a by-product of communication and other exchange activities, requires a focus (or focal actor) around which joint activities are organised (Nohria, 1992) and which can serve as a basis for network closure (Burt, 2000; figure 1).

To analyse the SC construct, the internal, external and holistic perspective can be taken as a basis. The internal perspective focuses on an entire collectivity, leading to the construct of internal SC (Coleman, 1988; Putnam, 1995). Internal SC comprises relationships among actors within a collectivity, consisting of strong, bonding ties like those between close friends and family members. Embedded members are glued together and can be intrinsically motivated through associability, homophily and reciprocity norms, bounded solidarity and value introjection (Portes, 1998). Subsequent to the effect of closure, outsiders can be excluded from a closed network's resources whereas insiders can be restricted through collective norms as a consequence of the lock-in effect (Portes, 1998; Burt, 2000). The external perspective focuses on the external relations that a focal actor maintains with other actors in a social network. Thereby, SC is regarded as a resource upon which focal actors can draw in order to achieve private objectives, mainly with extrinsic motivation. Focal actors draw upon all different kinds of ties (figure 2). Through internal and external, bonding, bridging and linking ties and the respective relationships, actors aim at accumulating, creating and utilising knowledge and further resources as well as at achieving shared goals through cooperation. A

social network consists of linkages and structural holes that are span by weak ties (Granovetter, 1973) and bridging ties, like those to distant friends, associates and colleagues, or even acquaintances (Burt, 1992; Putnam, 2000). The term of “linking SC” has also been introduced in this context, to describe bridging ties between actors belonging to different levels of a hierarchy, aiming at the access of information, wealth and other resources (Woolcock, 2001). Whereas bonding ties that can be used for “getting by” can be blinding, weak ties for “getting ahead” can prove to be too weak (Putnam, 2000).

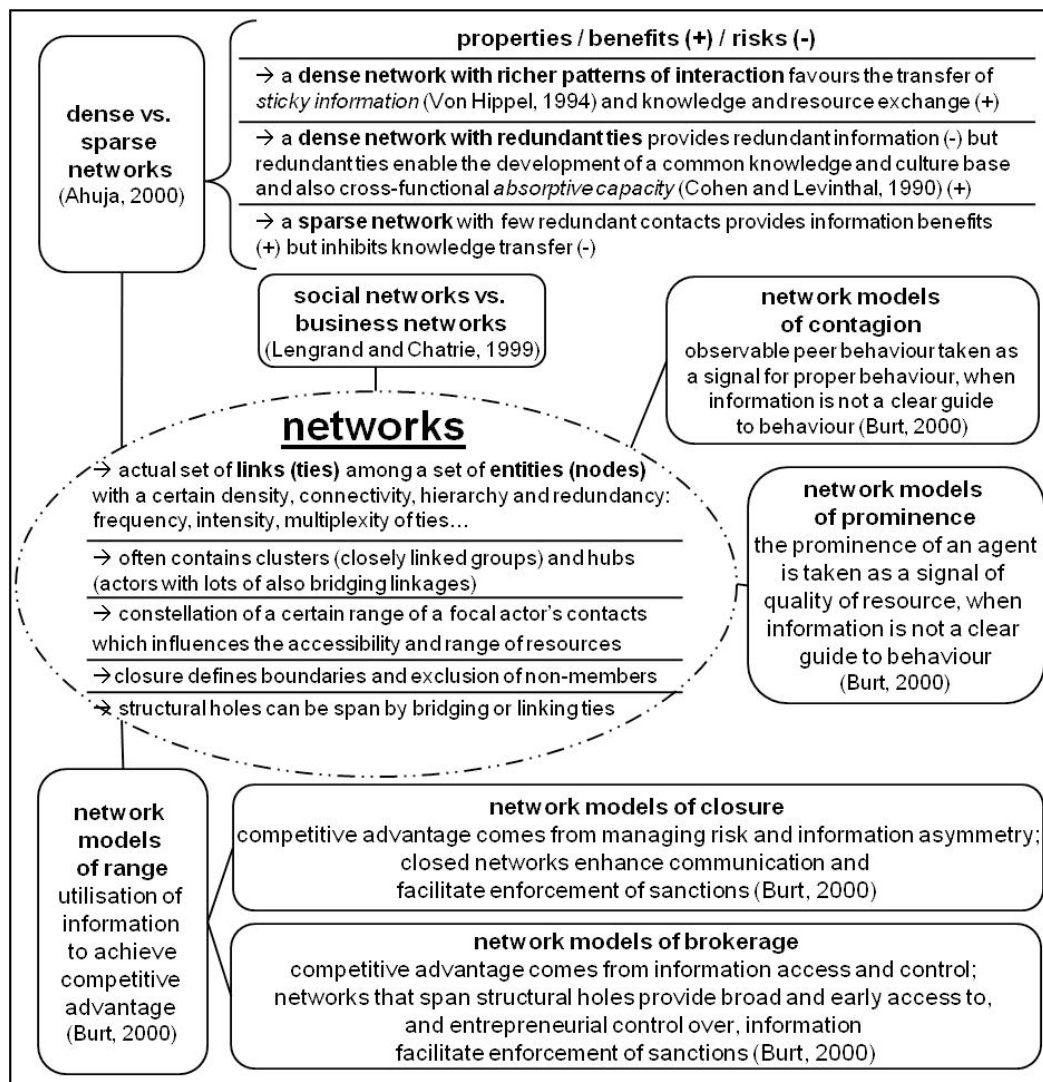


Figure 1: Types, properties, benefits and risks of networks

A holistic approach of SC considers influences of both internal and external linkages as well as communities and networks on a focal actor's action and performance. Taking organisations as focal actors while mainly considering the knowledge embedded in the social structure, the holistic perspective leads to the acknowledgement of inter-relations between social, human and intellectual capital (Nahapiet and Ghoshal, 1998).

Facets of SC, such as relationships and norms of reciprocity that arise from them, constitute intangible assets. 'Claim[s] to future benefits that [do] not have a physical or financial embodiment' (Lev, 2001: 5) are embodied in both SC and intellectual capital (IC). SC contributes to the creation of human capital (HC) (Coleman, 1988) and IC (Nahapiet and Ghoshal, 1998), while the accumulation of SC and IC is based on HC, which comprises social and professional skills and competences of an organisation's members.

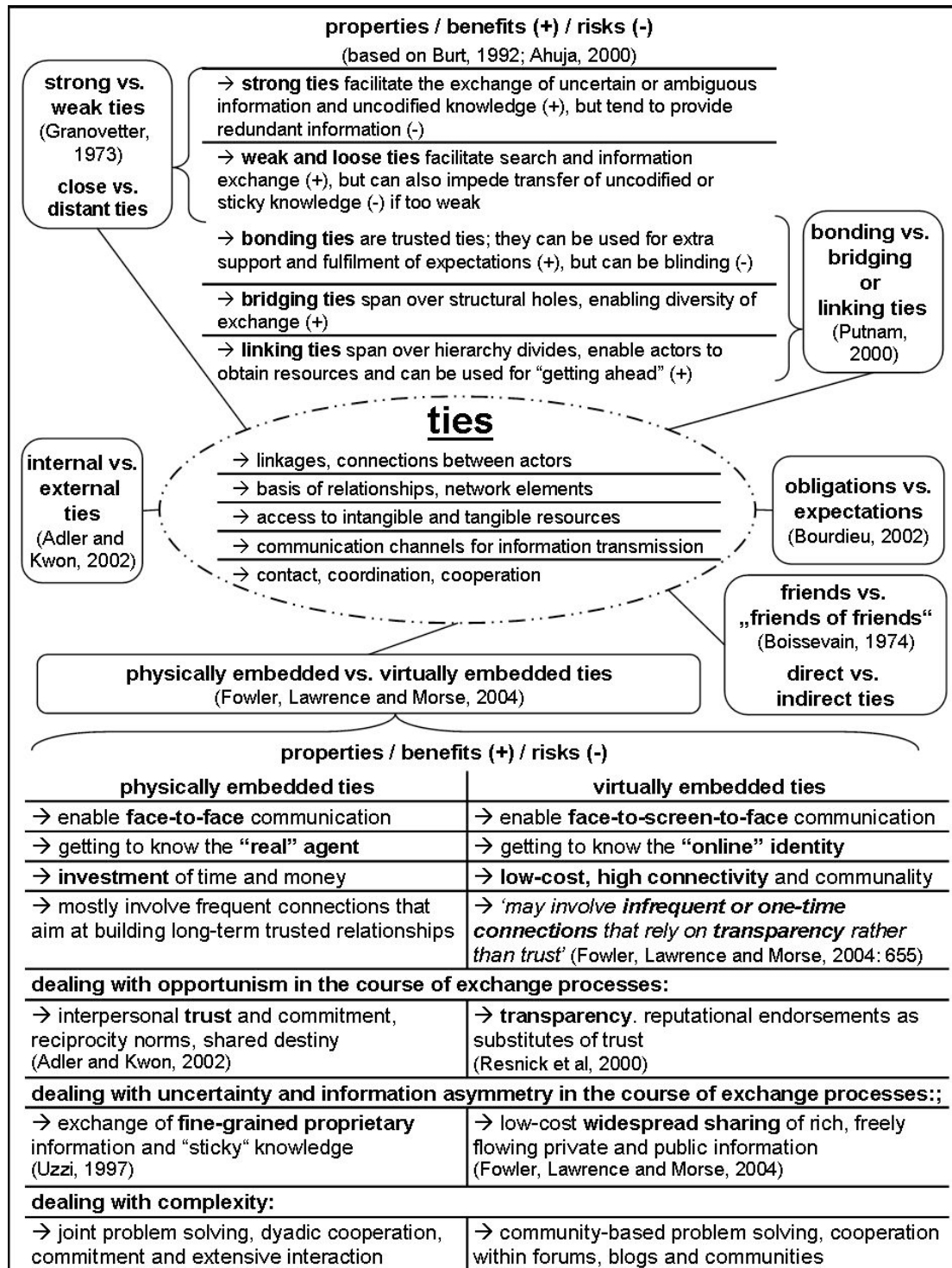


Figure 2: Types, properties, benefits and risks of ties

McElroy (2002: 32) proposed to integrate SC in the concept of IC as an IC domain of an organisation, but his model was not adopted. As the umbrella term SC implicates public good qualities and a broader cultural context, the term “relational capital” (RC) prevailed in contemporary IC research as a successor of “customer capital” (Edvinsson and Malone, 1997) to describe the SC of organisations. RC, as established in the course of European Union projects, terms the third, most intangible domain of IC besides the domains of human and structural capital. These three domains represent ‘the intelligence found in human beings, organisational routines and network relationships, respectively’ (Bontis, 1999: 440) and include intangible resources and activities that represent knowledge stocks and flows (Pike, Rylander and Roos, 2002: 658). Through the flows of knowledge enabled through

relations, IC factors influence each other and the knowledge, value and success of the organisation (Vasileiadou and Missler-Behr, 2010: 600).

RC stands for the external structure family of intangible assets, comprising stocks and flows of relationships to stakeholders, communities and the public, the firm reputation (image) that can change over time and the value of relationships that can also partly be translated into legal property such as trademarks and brand names (Sveiby, 2001: 346). RC embodies relations of organisations to other corporate actors and stakeholders as well as factors of human and structural capital involved in the external networking of an organisation. Such RC factors strengthen the image and the competitiveness in the market (Wu et al, 2008: 533, Zhang et al, 2008: 609) and also attract qualified members to the organisation, thus contributing to the development of HC (Vasileiadou and Missler-Behr, 2010: 601). RC is primarily developed through interaction and networking. Thereby, in particular cultural knowledge contributes to the development of relational capital and vice versa. The cultural knowledge of organisations *'is based on traditions and beliefs of a symbolic reality and influenced by a broader cultural context as well as by individual and collective sense-making processes'* (Vasileiadou and Missler-Behr, 2010: 601).

3. Forms of physical and virtual embeddedness

Embeddedness describes the constellation, structure and quality of focal actors' ties (Granovetter, 1973; Zukin and Di Maggio, 1990). Its structural, relational and cognitive dimensions (figure 3) embody the respective dimensions of SC and RC of organisations, as interpreted in the context of IC research. *Structural embeddedness* describes the morphology of networks configured by the presence or absence of ties. It stands for the overall connection pattern that describes who and how can be reached and serves as an appropriate organisation for the development of SC and RC (figure 3; Granovetter, 1973; Burt, 1992). *Relational embeddedness* stands for the qualities of relationships developed through interactions, such as trust, norms, obligations and expectations. Such qualities define the strength of inter-actor ties and influence the focal actor's behaviour (figure 3; Nahapiet and Ghoshal, 1998). Relational embeddedness (figure 3) also embodies aspects of cognitive, cultural and political embeddedness (hierarchical distribution of power and resources). The *cognitive embeddedness* (figure 3) comprises symbols and frameworks as well as shared understandings, codes, languages and narratives (Cicourel, 1973) and is also analysed in terms of cultural embeddedness (Zukin and Di Maggio, 1990).

The *'contextualization of economic activity in on-going patterns of social relations'* (Dacin, Ventresca and Beal, 1999: 319) refers to both the *traditional physical embeddedness* of actors in a social structure supported by "face-to-face" interaction and to the *virtual embeddedness* of actors consisting of virtually embedded ties, achieved through electronic linkages and sustained by means of electronic information and communication technologies (figure 2 and figure 4; Morse, Fowler and Lawrence, 2007: 142). Virtual embeddedness (VE) represents the image of physical embeddedness in the Internet and the World Wide Web, realised through virtual ties, groups, networks, communities, markets, and even virtual organisations and virtual worlds (figure 4). Virtual ties can *'provide distinctive solutions to the same problems with exchange relationships that are addressed by socially embedded ties'* (Fowler, Morse, and Lawrence, 2004: 648). Their exploitation is not constrained by physical space, time or organisational boundaries. They facilitate exchange processes and bring many benefits, especially to new ventures, but are also accompanied by risks, which mainly address security issues (figure 4).

Firms are embedded in their environment and maintain a set of relationships with other embedded agents, on which they partly depend to create value from their business idea, succeed, grow and survive. Not only rather strong relationships to customers, suppliers, shareholders and allies but also weaker ones to agents located further from the closer competitive environment such as government agencies and trade unions as well as to certain community groups and the mass media are of interest (De Castro, Sáez and López, 2004: 578). The latter relationships also lead ventures to take on *social responsibility*. They influence the corporate reputation and image significantly and therefore also contribute to the social legitimisation of a venture's activities.

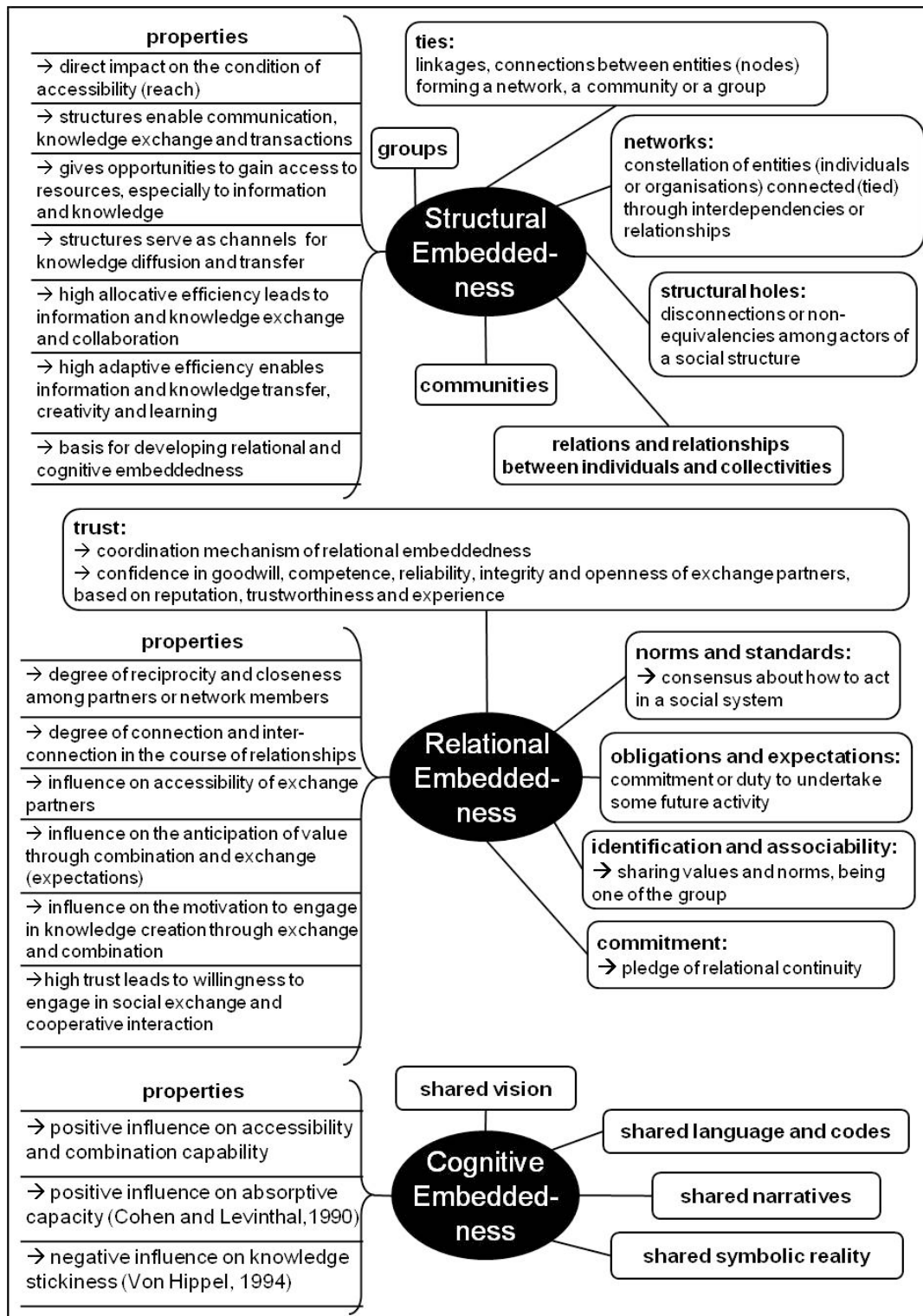


Figure 3: Structural, relational and cognitive embeddedness (based on Nahapiet and Ghoshal, 1998)

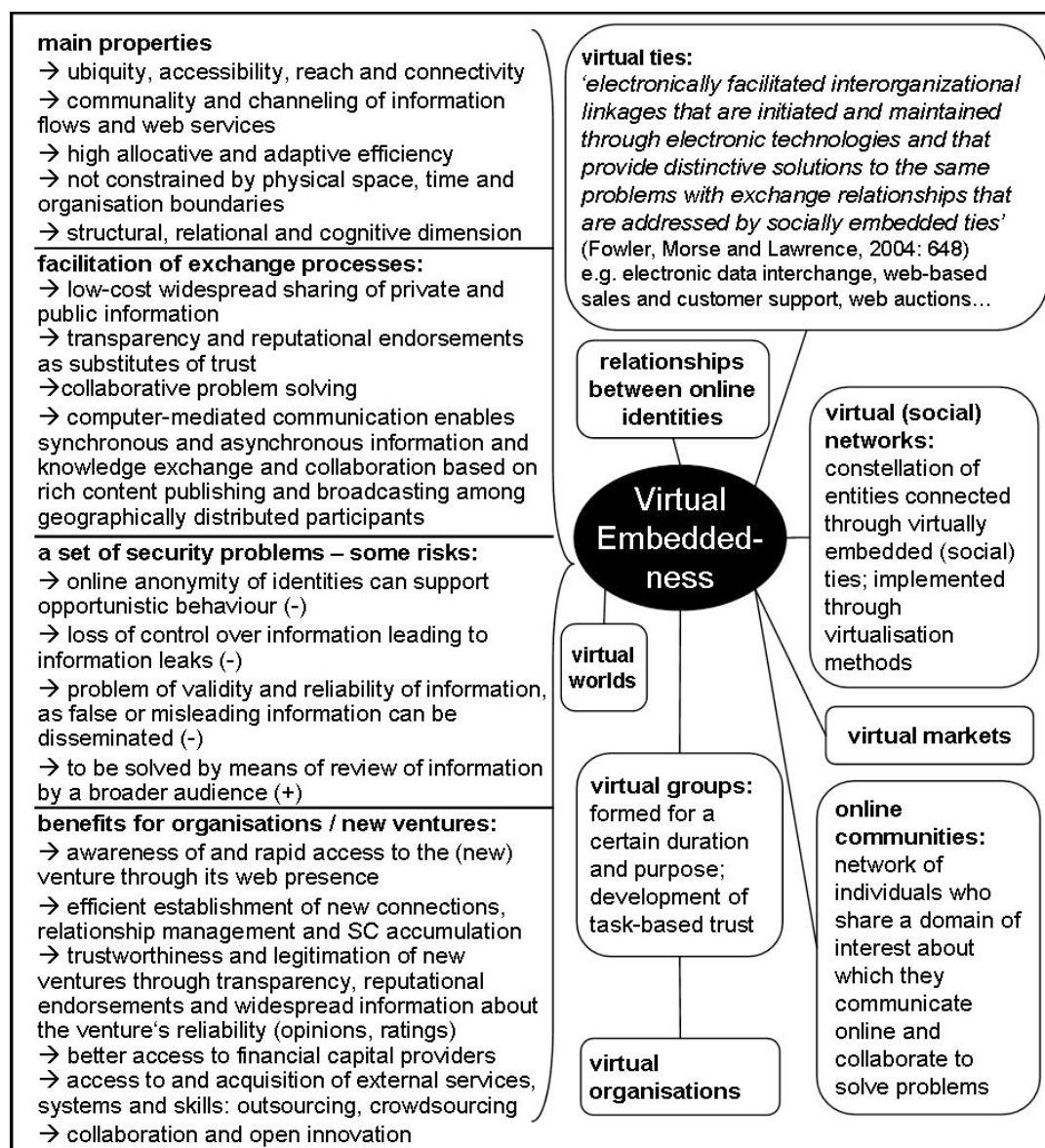


Figure 4: Virtual embeddedness (based on Morse, Fowler and Lawrence, 2007)

4. Relational capital management through virtual embeddedness, Web 2.0 and social media

The selective and sustainable development of the organisation's RC can be achieved by means of relational capital management (RCM). RCM forms the basis for the competitive growth of an organisation, securing the provision and retention of tangible and intangible resources and knowledge necessary for its survival and growth. Knowledge, an asset regarded as very important for economic growth in the new economy (Grant, 2002), can be exchanged and integrated through target-oriented relationships. Knowledge transfer and integration, comprising identification, acquisition, and utilisation of external knowledge (Schröder, 2006), are not only influenced by the relationship quality but also by the tacitness or 'stickiness' of the knowledge (Von Hippel, 1994) as well as by the absorptive capacity of the firm (Cohen and Levinthal, 1990). Knowledge stickiness can be reduced through trust, a component of relational embeddedness, and the absorptive capacity of network members that exchange information and knowledge is increased through the development of shared knowledge, standards and norms, that constitute the cognitive embeddedness.

RCM can also be described as the target-oriented optimisation of an organisation's embeddedness that leads to the amelioration of information, knowledge and resource exchange and creation through communication and collaboration. Different network constellations and embeddedness modi are required to achieve specific learning and innovation purposes in different sectors: dense and closed networks are found to be the key for radical innovation (Baba and Walsh, 2010), whereas open

networks contribute to incremental innovations that are based on co-creation. In the course of RCM, key aspects of every relation must be assessed, such as the main characteristics of the agent, the relational processes that occur, the expected outcomes and, at last but not least, the risks involved in the relation. The risk assessment is very important, as the value derived from relationships is generated through actions of more than one agent, so that RC cannot be exclusively owned or controlled (De Castro, Sáez and López, 2004: 578).

Nowadays, the optimisation of virtual embeddedness (VE) constitutes one key factor of successful relational capital management (RCM). Social media (figure 5) enable communication, collaboration and formation of virtual communities through computer-mediated communication in digital environments and thus help to build, renew and maintain RC through virtually embedded ties. Relationship and knowledge management have been transformed through the internet and new rich-content media based on user interaction and peer-to-peer content creation. The intensity and rich content of relationships based on electronic linkages increase through the boost of user interaction triggered by the utilisation of web technologies outlined by the umbrella term “Web 2.0” (figure 5).

Web 2.0 encompasses the concept of the web as a platform for user participation, cost-effective scalability and usability and harnessing of collective intelligence (O’Reilly, 2005). Web 2.0 users can establish a variety of virtual connections at low or no cost and easily build (virtual) structural embeddedness, as they can easily identify and assess potential virtual connections and decide if they should expect benefits from an ongoing connection and interaction. The identification and assessment of potential connections and relationships is facilitated through the dissemination of widespread information about actors and their (often blended) online and offline identities which influence the web’s social processes. Social tools help to construct rich online identities as profiles that consist of self-declared, action-based and third-party information, while identity sharing indicates a certain amount of trust in web security and online goodwill (Nabeth, 2009). In the *attention economy* that drives Web 2.0 and its myriads of interconnected contributors (Brzozowski, Sandholm and Hogg, 2009) bookmarking services and Really Simple Syndication (RSS) feeds enable to keep the attention astute on topics of interest. Social Media (SM) enable self-publishing to attract attention, be it the attention of a wider public (e.g. by blogging) or of a circle of friends (e.g. by Facebook-posting). SM increase customers’ engagement with products through offering feedback opportunities. Users enjoy sharing experiences, opinions and ideas with like-minded consumers in an open community. Thereby, enterprise reputation is built up through “word-of-mouth” and “like” suggestions resulting to viral marketing (Boyd-Myers, 2010).

Enterprise 2.0 constitutes the value proposition for virtually embedded organisations to use ‘*emergent social software platforms within companies, or between companies and their partners and customers*’ (McAfee, 2006) to generate content, support decision-making and build communities. As shown in figure 5, SM applications and Web 2.0 technologies embody opportunities that can be brought in the context of Enterprise 2.0 to achieve mass internal content creation or external collaborative contributions, to build large-scale communities, to broadcast solution sourcing, to harness information markets and to implement participatory viral marketing campaigns (Chui, Miller and Roberts, 2009; figure 5). Web 2.0 facets can be categorised in multiple groups according to their chief objectives, as divergent disciplinary backgrounds lead to a multiplexity of Web 2.0 applications and technologies, reflecting different perspectives on the *intelligent web* and its dynamic design. Marketing and branding approaches, open innovation, outsourcing and collaboration concepts of the market-oriented view are supported by service and deployment models of Cloud Computing, comprehensive approaches of Extensible Markup Language (XML) descriptions and other standard web technologies. Innovative technologies facilitate rich content and rich user experience and transform websites into dynamic web applications. The accessible resource base of a huge amount of meta-data derived from user-generated content enables process- and data-mining by means of web-based software with extremely shortened release cycles, such as online marketing tools and eCommerce software. Furthermore, technological innovations like mobile interfaces with fully-covered online access and mobile service marketplaces lead to ubiquitous computing environments (Baechle, 2008).

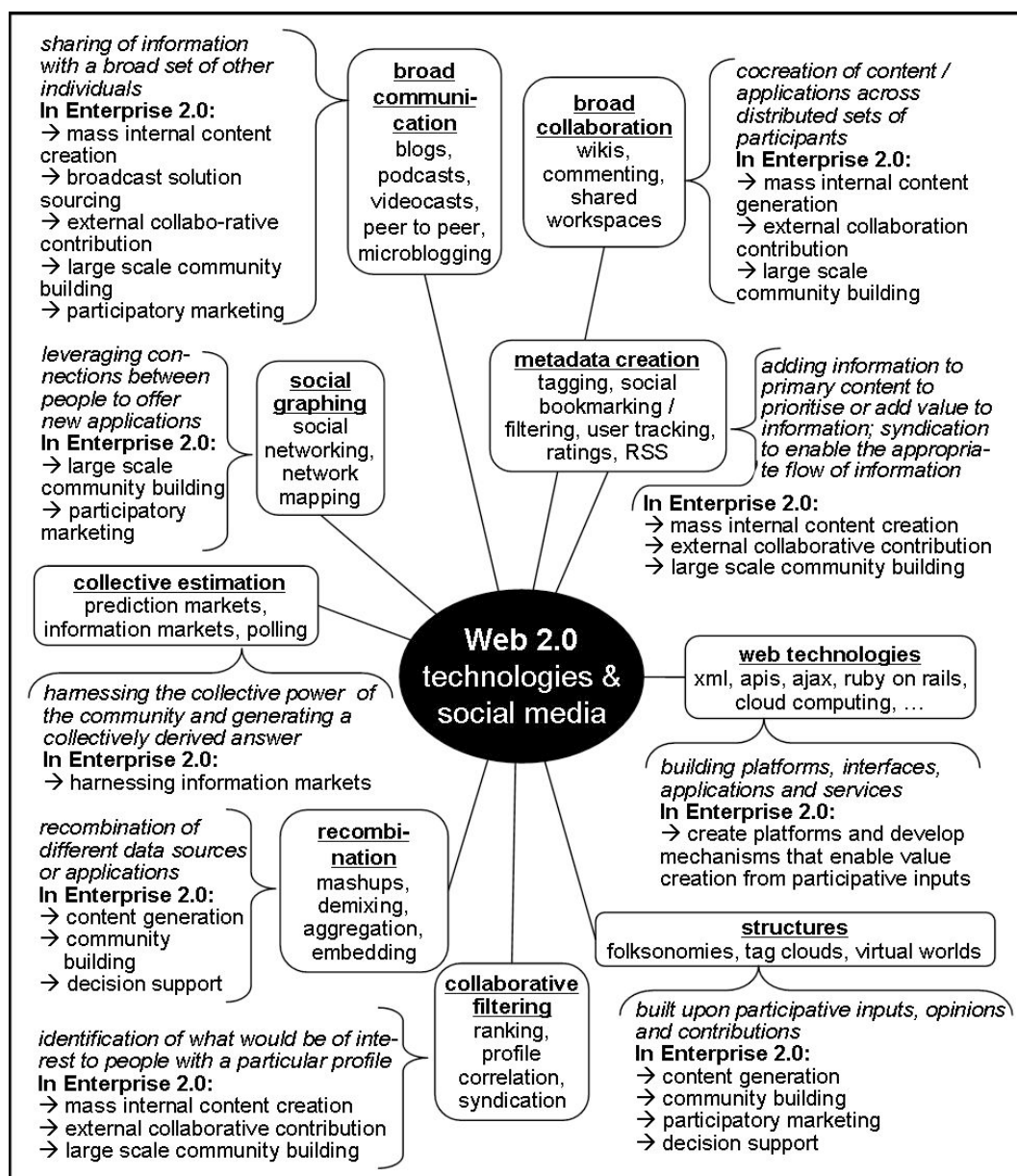


Figure 5: Objectives and utilisation opportunities of Web 2.0 technologies and social media (based on Chui, Miller and Roberts, 2009 and Dawson, 2009)

The participation in web discussion groups is triggered by the expectation of social benefits derived from a sense of community. Important incentives are the response, feedback and acknowledgement of others. Reputation attached to identities and assessed through reviews and aggregated ratings leads to the fostering of trust among strangers (Resnick et al, 2000). Moderation and feedback mechanisms enable the establishment of norms and standards for web interaction, whereby good behaviour according to the so-called “netiquette” and valued contributions improve the reputation, trust and SC of the contributors. Concerning the evaluation of contributions, the assessment of their quality is problematic. While the view count of the amount of clicks on a contribution hints at its relevance to the virtual community, attention is better measured by the amount and quality of feedback, opinions, comments and tags, which also inspire further participation (Brzozowski, Sandholm and Hogg, 2009). But what works for the public web may break down when it comes to sharing knowledge insights e.g. in enterprise blogs and wikis. If the effort to share knowledge is not recognised and accredited by the management, the employees’ motivation diminishes.

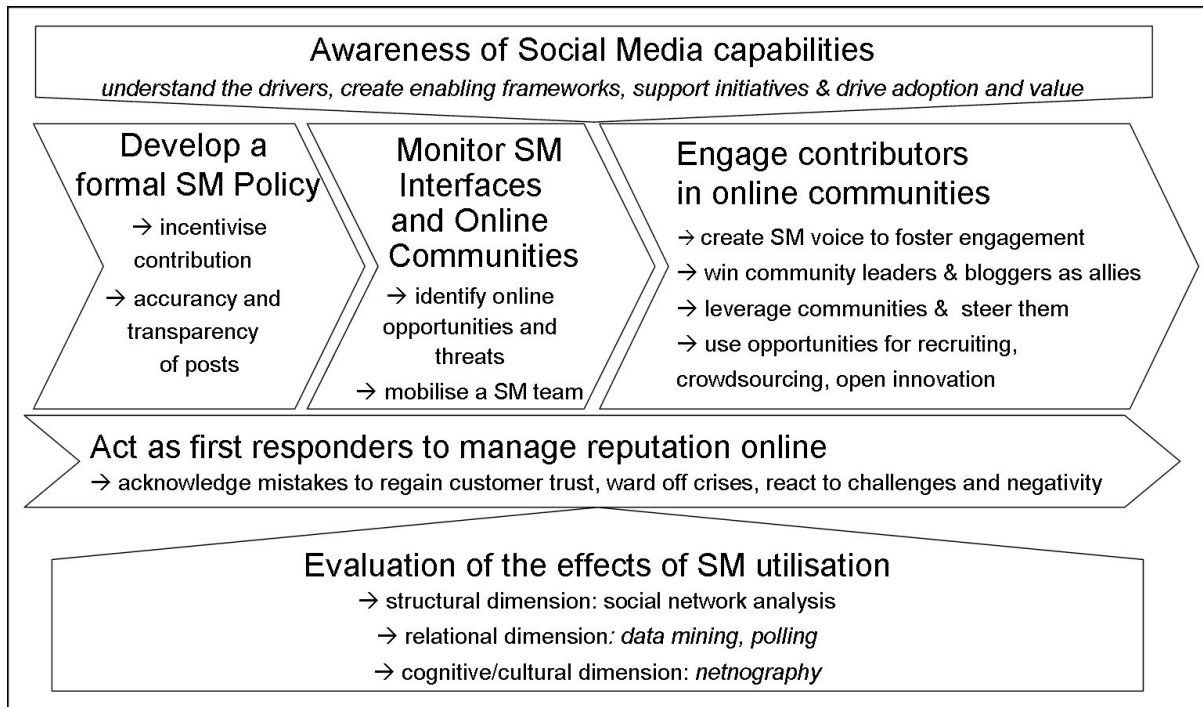


Figure 6: Social media implementation strategy (based on Kane et al, 2009)

Therefore, in order to achieve an effective utilisation of SM for enterprise purposes ("Enterprise 2.0", also analysed in figure 5), motivation to participate and awareness of the usability of SM have to be fostered through managerial support, feedback and participation (figure 6). Enabling structures can easily be created based on the Enterprise 2.0 drivers of participative content generation. Internal platforms offer good opportunities for effective in-house project management and mass internal collaborative content creation in enterprise wikis, blogs or podcasts (McAfee, 2006). External online platforms build a basis for collaboration with suppliers and business partners, social networking, customer communication and collaboration in terms of after-sales feedback, co-creation, open innovation and viral marketing. SM can also be used for broad public oriented publishing and crowdsourcing (Doan, Ramakrishnan and Halevy, 2011: 88). Through establishing a SM policy, guidelines and standards about how the employees should use SM to avoid information leaks and any danger of defamation can be set up (see also IBM, 2010). A SM implementation strategy also aims at harnessing the user-generated power of online communities in order to manage relationships and reputation online (figure 6). To achieve effective and efficient RM through SM, the effects of its utilisation should be monitored and evaluated. As shown in figure 6, this is also possible through the visualisation of virtual network structures (e.g. through social network analysis, Wassermann and Faust, 1994), data mining of online contents and netnography of online communities (Kozinets, 2002).

Although SM can contribute to a venture's customer and revenue growth, its utilisation can turn out to be more demanding, costly and time-consuming than expected and involves not only opportunities but also threats. Certain negative effects of SM like the addiction to certain forms of rich content virtual interactive communication, the *'illusion of the real, intimate knowledge of true connections'* (Connor, 2010), the cultivation of *'fragmented and shallower cultures'* (Connor, 2010) and the loss of realistic self-perception can be regarded as *social costs*. SM can foster thin virtual relationships which lack stability, credibility and commitment and thus lead to a deterioration of a company's RC in case of excessive misuse. Extensive and inefficient employee use and mismanagement of electronic communications can even scaffold *unrealistic customer expectations*. In most cases, blown-up promises remain unfulfilled and result to dissatisfied customers and partners, bad reputation and loss of relational and financial capital. As many risks are inherent in SM use, a SM strategy must consider, assess and manage not only benefits but also risks concerning reputation, security, governance and assurance issues, such as data theft or leakage, lack of content control, liability for libel, privacy violations and brand defamation (ISACA, 2010).

Despite the risks and costs associated to the utilisation of SM tools, ventures discover and realise the potential for brand recognition, customer satisfaction, open innovation and human resource management purposes. According to recent studies, SM utilisation constitutes the rule rather than the

exception and 'has even begun to impact brand recognition and enterprise revenue' (ISACA, 2010: 4). An efficient SM implementation leading to RC development and financial success is demonstrated in the following best practice case study about Elbenwald.

5. A touch of fantasy and magic through eCommerce – the case study of Elbenwald

The name *Elbenwald*, which means "Elves' Forest" in German, as well as the business idea for the online shop *Elbenwald GmbH*, were inspired by J.R.R. Tolkien's tales. Elbenwald GmbH was founded in the year 2000 by three highly-motivated young entrepreneurs who met during the course of their studies. They decided to carry out the establishment of an eCommerce venture as an experiment and adventure to distribute "Lord of the Rings" - related articles online and to create value for the Middle-Earth fans, who would then get better access to a wider variety of their favourite articles. Rich content communication and interaction with and among their customers is, was and will remain the first priority of Elbenwald, as they are mostly interested in offering fantasy-related desiderata. To initialise their SM strategy, they immediately enriched their initial web presence (website and web-based sales, (Elbenwald, 2011a) with the establishment of a forum for an online community (Elbenwald, 2011b). Elbenwald tries to satisfy their customers' wishes and communicate them to their suppliers, thus offering the latter decision support concerning product development. Elbenwald foster trust through reputational endorsements of products such as feedback, ratings and comments and they lay great importance on their reputation, which they also demonstrate online by an official "trusted shop" certificate. To create up-to-date dynamic web content, Elbenwald uses microblogging (Twitter), podcasting (YouTube) and RSS feeds.

To add more fantasy context and content to their scalable online presence, Elbenwald integrated the Harry Potter's Hogwarts' magic dimension in their flexible portfolio. The integration and online distribution of further articles related to other successful fantasy films, TV series and games led to a six-fold turnover growth (2001–2004). Elbenwald's success demonstrates the geniality of the business idea to bring more fantasy and magic into the real world. The financial success implicated by a sustainable revenue growth is verified by the positive development of operative cash flow and return on investment. The venture started off with as little debt capital as possible. Elbenwald's growth was based on a growing demand in a market that they enlarged through a broader portfolio of products. In 2005, the Elbenwald management team organised an "Elbenwald Medieval Convention" in order to enable the virtual community to meet in the real world and to thereby intensify the rather weak virtual ties through face-to-face interaction and shared "live" experiences. In 2009, Elbenwald started to co-create personalised items through printing and stamping film motifs on articles. In 2010, they went live in Berlin through the establishment of a "real" store in the Shopping Mall Alexa in Berlin (figure 7).

Both the store and the website seamlessly adapt special features to the latest trends derived from fantasy and adventure films as well as from annual feasts, carnival being the best example. Thereby, Elbenwald maintains its authentic character, which they primarily sustain through an intensive utilisation of SM. The main idea is to enable their customers to partake in the Elbenwald team's experiences that may be of interest to them. In order to share personalised information, the team members put their own photos and videos online and post their comments, be it on Facebook (Elbenwald, 2011c), YouTube (Elbenwald, 2011d), or the Elbenwald forum (Elbenwald, 2011b). Thus, photos showing a hunting fox in the forest near their headquarters, a snow covered fairy statue in Elbenwald's front garden or even a documentation of the latest video games convention can be found on their Facebook wall. Genuine information about Elbenwald news and trends reaches their Facebook friends and fans, YouTube and Newsletter subscribers and Twitter followers. In response to this, their customers share their own experiences on Elbenwald's Facebook wall and in their online community's forum. Service is not just a word, products are evaluated honestly and problems are discussed openly. If malicious comments appear online, the Elbenwald team posts them on the Facebook wall and on the Elbenwald forum to allow their fans and friends to leave their comments. In this way Elbenwald's reputation is restored unproblematically.

The Elbenwald team even applies crowdsourcing and the customer-active-paradigm (Von Hippel, 1978) to their marketing activities through incentivising their customers to make promotional videos of how they delightedly unpack and use the received products. The customers whose amateur videos are chosen to be broadcasted by the Elbenwald.de channel on YouTube (Elbenwald, 2011d) get the product for which they created their own advertising spot for free. Elbenwald's community (Elbenwald, 2011b) is indeed powerful and the Elbenwald team manages to increase and harness its power to

initiate and facilitate community shopping through their SM strategy. During the first six months of 2011, the number of Elbenwald's Facebook fans increased by 60%, reaching 2600 fans (Elbenwald, 2011c). This is the latest proof of an awesome SM strategy implementation by Elbenwald.

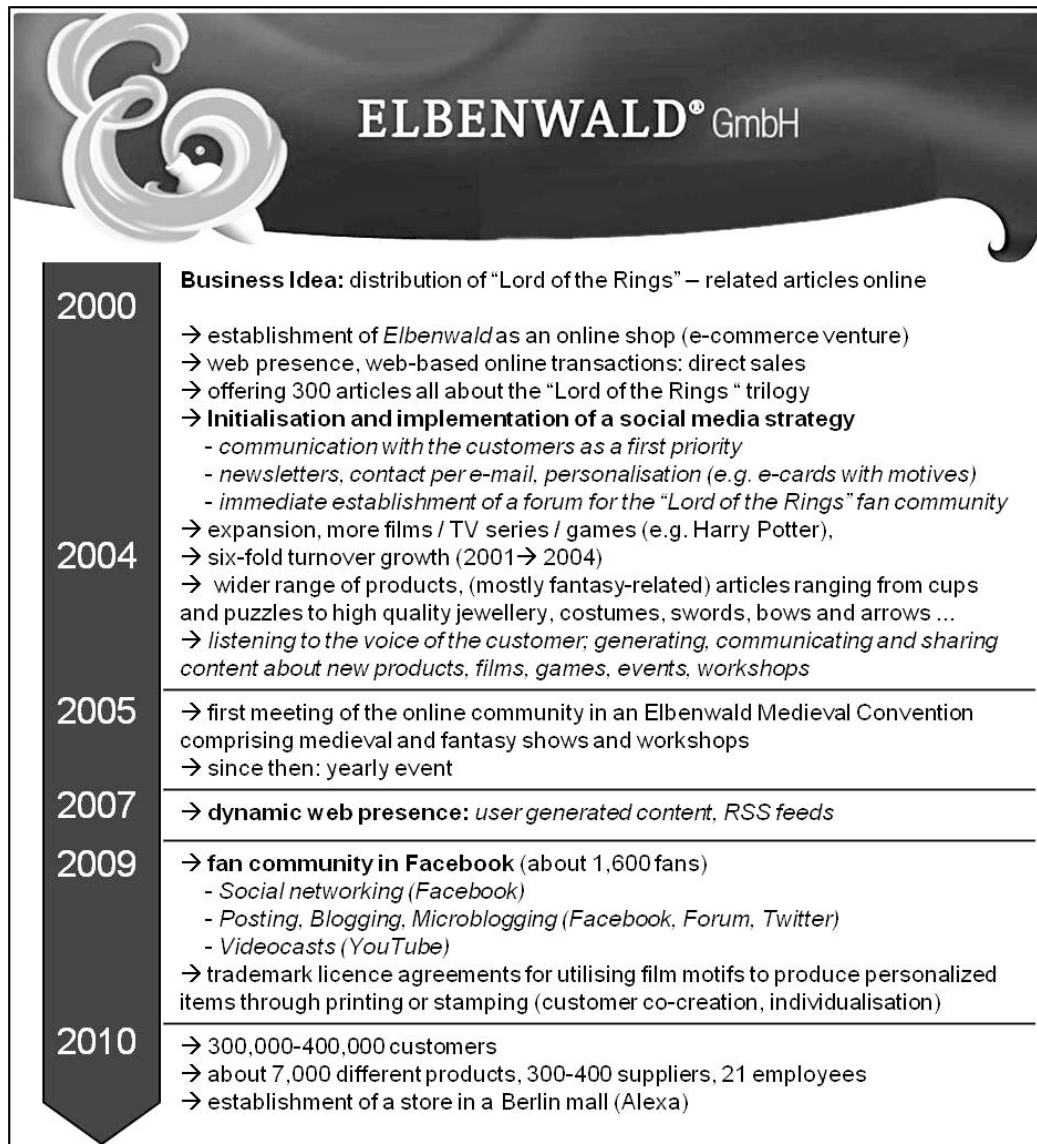


Figure 7: Chronological development of the eCommerce venture Elbenwald

6. Discussion of a conceptual model of RCM through virtual embeddedness and social media

The conceptual model of RCM through social media in a virtually embedded organisation (figure 8; based on Nahapiet and Ghoshal, 1998) can be exemplified by the case study of Elbenwald. Through their motivation, ability and opportunity to take advantage of the web's ubiquity, accessibility and usability, the founders of Elbenwald drew upon their structural, relational and cognitive embeddedness to implement their SM strategy in order to achieve added value for their customers and to manage and increase their RC. Their structural embeddedness is visualised by their forum and social networking site, their relational embeddedness is reflected in the commitment of their community's fans and their cognitive embeddedness can be found within the shared narratives of Tolkien's Middle-earth and other magic stories.

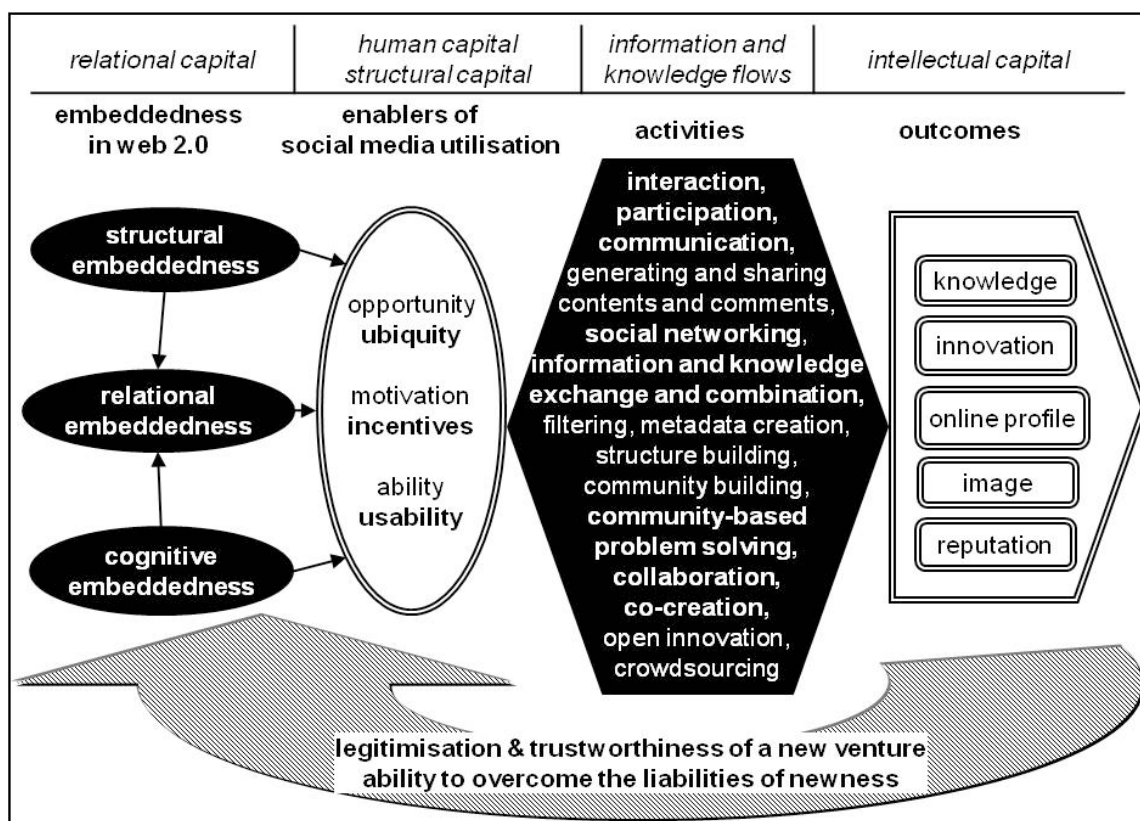


Figure 8: A conceptual model of RCM through virtual embeddedness and social media (based on Nahapiet and Ghoshal, 1998)

A certain structural embeddedness in the Web 2.0 community, relational embeddedness in form of transparency, reputational endorsements as substitutes of trust and “netiquette” standards as well as a shared symbolic reality in terms of cognitive embeddedness constitute prerequisites for the empowerment to utilise social media in the Web 2.0 environment. As shown in the model of figure 8, the utilisation of social media is enabled by means of human capital factors (motivation, opportunity and ability). Communication and collaboration activities aim at the creation of intellectual capital (knowledge, innovation, image and reputation). The basic human need of expression constitutes the main intrinsic motivation to contribute to social networking sites and build up relational capital (RC) online. Further human incentives as well as structural capital elements which provide usability and ubiquity of computing environments also enable and facilitate the utilisation of social media. The desired outcomes of information and knowledge sharing, collaborative and social networking activities do not only create IC but also RC, as they improve the overall embeddedness properties of an organisation, especially concerning the dimension of trust. The activities of content generation, content sharing and social networking in online communities (structural elements) lead to the development of shared norms and standards (relational elements) and to a shared symbolic reality (cognitive element) that ensure further motivation and empowerment for online contribution and co-creation. For new ventures, online RCM through user interaction and participation leads to the accumulation of reputation which fosters legitimisation and trustworthiness (figure 8; Morse, Fowler and Lawrence, 2007).

7. Conclusion

New opportunities to build social, relational and intellectual capital online through exploiting virtual embeddedness (VE) and social media are mostly utilised by new ventures. As proposed by Morse, Fowler and Lawrence (2007), the degree of a new venture’s VE helps it to overcome its *liabilities of newness* (Stinchcombe, 1965) and increases its likelihood of survival. New ventures can use the web to present their business idea, to build up their reputation and image and to legitimise their existence, to offer products and services online and even to interact with their customers in terms of web-based open innovation, thus exploiting the benefits of virtual embeddedness. At the same time, they are exposed to the risks that may arise with the establishment and utilisation of their own virtual identity.

In the Web 2.0 environment, relationships are virtually embedded and managed with the help of ICT and especially SM and RM software. As the evolution of the “social” web to a service platform for participation and user interaction leads to new opportunities and threats for virtually embedded actors, it is very important to achieve a high level of virtual embeddedness in the appropriate constellation. Through networking in the web, building up virtual relationships and exchanging information in forums, blogs and online communities, RCM can be accomplished efficiently and effectively, provided that the targeted customers, partners and potential shareholders are keen on going online and utilising SM as well. As shown in the case study, through implementing a suitable SM strategy, ventures can facilitate and even optimise their RCM. The conceptual model of RCM through VE proposed in this paper provides a framework for the analysis of further case studies of new ventures of the eBusiness and ICT sector. Of course, the RC of an organisation is not only embodied in VE elements but in physical ties as well, which are not taken into consideration in the conceptual model of this paper for simplicity reasons. The RC of most firms consists of a variety of both physical and virtual ties which both contribute to the quality of relationships and define the constellation, range and accessibility of an actor’s overall connections. Therefore, an effective RCM implicates the implementation of a combination of physical and virtual embeddedness that is appropriate for the specific environmental conditions as well as for the venture’s value proposition and the relevant industrial sector (Morse, Fowler and Lawrence, 2007: 153). The management and evaluation of both virtual and physical ties is a challenge that can be facilitated by a target-oriented adoption and utilisation of Web 2.0 technologies and SM tools. But the benefits of their utilisation, which are exemplified in the case study about the German eBusiness venture Elbenwald, should neither be generalised nor overestimated in social or economic terms. Virtual face-to-screen-to-face interaction can facilitate but not substitute “real” face-to-face communication and the potential to achieve competitive advantage in the ICT sector diminishes with a growing number of dot-com ventures based on quite similar business models. A new venture will not be successful just because of using or offering SM and Web 2.0. But it will probably become much more successful through an efficient use of SM and Web 2.0 and less or not successful at all through refraining from using the advantages of VE. Therefore, the main focus of implications for further research should lie in the evaluation of risks and benefits concerning the utilisation of SM and Web 2.0 and on the potential of virtual embeddedness for creation of relational and intellectual capital and open innovation.

References

- Adler, P.S. and Kwon, S.W. (2002) "Social Capital: Prospects for a New Concept", *Academy of Management Review*, Vol. 7, No. 1, pp. 17-40.
- Ahuja, G. (2000) "Collaboration networks, structural holes, and innovation: A longitudinal study", *Administrative Science Quarterly*, Vol. 45, No. 3, pp. 425-455.
- Amin, A. and Roberts, J. (2008) "Knowing in action: Beyond communities of practice", *Research Policy*, Vol. 37, No. 2, pp. 353-369.
- Baba, Y. and Walsh, J.P. (2010) "Embeddedness, social epistemology and breakthrough innovation: The case of the development of statins", *Research Policy*, Vol. 39, No. 4, pp. 511-522.
- Baechle, M. (2008) "Ökonomische Perspektiven des Web 2.0 – Open Innovation, Social Commerce und Enterprise 2.0", *Wirtschaftsinformatik*, Vol. 50, No. 2, pp. 129-132.
- Boissevain, J. (1974) *Friends of Friends, Networks, Manipulators and Coalitions*, Basil Blackwell, Oxford.
- Bontis, N. (1999) "Managing Organizational Knowledge by Diagnosing Intellectual Capital – Framing and Advancing the State of the Field", *International Journal of Technology Management*, Vol. 18, No. 5-8, pp. 433-462.
- Bourdieu, P. (1986) "The forms of capital", in: Richardson, J.G. (ed.), *Handbook of Theory and Research for the Sociology of Education*, Greenwood, New York.
- Boyd-Myers, C. (2010) "New Media: Your Social Media Strategy in 60 Seconds", *TNW Social Media Blog*, [Online], 17 Dec, Available: <http://thenextweb.com/socialmedia/2010/12/17/new-media-your-social-media-strategy-in-60-seconds/> [13 Jun 2011].
- Brzozowski, M.J., Sandholm, T. and Hogg, T. (2009) "Effects of feedback and peer pressure on contributions to enterprise social media", *Proceedings of the ACM 2009 International Conference on Supporting Group Work - GROUP '09*, Sanibel Island, Florida, USA, ACM Press, pp. 61-70.
- Burt, R.S. (1992) *Structural Holes*, Harvard University Press, Cambridge, Massachusetts.
- Burt, R.S. (2000) "The network structure of social capital", *Research In Organizational Behavior*, Vol. 22, pp. 345-423.
- Chui, M., Miller, A. and Roberts, R.P. (2009) "Six ways to make Web 2.0 work", *McKinsey Quarterly* [Electronic], 02/2009, [Online], Available: <https://www.mckinseyquarterly.com/PDFDownload.aspx?ar=2294> [13 Jun 2011].
- Cicourel, A.V. (1973) *Cognitive Psychology*, Penguin Books, Harmondsworth, England.
- Cohen, W.M. and Levinthal, D.A. (1990) "Absorptive Capacity: A new perspective on learning and innovation", *Administrative Science Quarterly*, Vol. 35, No. 1, pp. 128-152.

- Coleman, J.S. (1988) "Social capital in the creation of human capital", *American Journal of Sociology*, Vol. 94, Supplement: Organizations and Institutions: Sociological and Economic Approaches to the Analysis of Social Structure, pp. S95-S120.
- Connor, A. (2010) "The Social Cost of Social Media", *Flamingo Asia Pacific Blog*, [Online], 14 Apr, Available: <http://www.flamingo-singapore.com/2010/04/the-social-cost-of-social-media/> [13 Jun 2011].
- Dacin, M.T., Ventresca, M.J. and Beal, B.D. (1999) "The embeddedness of organizations: Dialogue and directions", *Journal of Management*, Vol. 25, No. 3, pp. 317-356.
- Dawson, R. (2009) *Implementing Enterprise 2.0 - A practical guide to creating business value inside organizations with web technologies*, Advanced Human Technologies, [Online], Available: http://ahtgroup.com/files/Enterprise2_AHTflyer.pdf [13 Jun 2011].
- De Castro, G.M., Sáez, P.L. and López, J.E.N. (2004) "The role of corporate reputation in developing relational capital", *Journal of Intellectual Capital*, Vol. 5, No. 4, pp. 575-585.
- Dinda, S. (2008) "Social capital in the creation of human capital and economic growth: A productive consumption approach", *Journal of Socio-Economics*, Vol. 37, No. 5, pp. 2020-2033.
- Doan, A., Ramakrishnan, R. and Halevy, A.Y. (2011) "Crowdsourcing systems on the World-Wide Web", *Communications of the ACM* [Electronic], Vol. 54, No. 4, pp. 86-96, [Online], Available: http://delivery.acm.org/10.1145/1930000/1924442/p86-doan.pdf?ip=141.43.164.28&CFID=29686849&CFTOKEN=22193269&__acm__=1308588417_d20c817a6b8be72f1919a4570c4467e4 [13 Jun 2011].
- Edvinsson, L. and Malone, S. (1997) *Intellectual Capital – Realizing Your Company's True Value By Finding It's Hidden Brainpower*, HarperCollins, New York.
- Elbenwald (2011a): Elbenwald – Startseite, [Online], Available: <http://www.elbenwald.de/> [20 Jun 2011].
- Elbenwald (2011b): Elbenwald.de – Community, [Online], Available: <http://www.elbenwaldforum.de/> [20 Jun 2011].
- Elbenwald (2011c): Elbenwald.de – Facebook, [Online], Available: <http://www.facebook.com/elbenwald> [20 Jun 2011].
- Elbenwald (2011d): Elbenwald.de Video – Kanal von elbenwaldde – YouTube, [Online], Available: <http://www.youtube.com/user/elbenwaldde?gl=DE> [20 Jun 2011].
- Fowler, S.F., Lawrence, T.B. and Morse, E.A. (2004) "Virtually embedded ties", *Journal of Management*, Vol. 30, No. 5, pp. 647–666.
- Fritsch, M. and Kauffeld-Monz, M. (2010) "The impact of network structure on knowledge transfer: an application of social network analysis in the context of regional innovation networks", *The Annals of Regional Science*, Vol. 44, No. 1, pp. 21-38.
- Granovetter, M.S. (1973) "The Strength of Weak Ties", *American Journal of Sociology*, Vol. 78, No. 6, pp. 1360-1380.
- Granovetter, M. (1983) "The Strength of Weak Ties: a Network Theory Revisited", *Sociological Theory*, Vol. 1, pp. 201-233.
- Granovetter, M. (1985) "Economic Action and Social Structure: The Problem of Embeddedness", *American Journal of Sociology*, Vol. 91, No. 3, pp. 481-510.
- Grant, R.M. (2002) "The Knowledge-based View of the Firm", in: Choo W.C. and Bontis, N. (eds.), *The strategic management of intellectual capital and organizational knowledge*, Oxford University Press, New York, pp. 133-148.
- Harper, R. (2001) *Social Capital: A Review of the Literature*, Office for National Statistics, Social Analysis and Reporting Division, London, 10/2001, pp. 1-45, [Online], Available: <http://www.statistics.gov.uk/socialcapital/downloads/soccaplitreview.pdf>, [13 Jun 2011].
- Hormiga, E., Batista-Canino, R.M. and Sánchez-Medina, A. (2010) "The role of intellectual capital in the success of new ventures", *International Entrepreneurship and Management Journal* [Electronic], Vol. 7, No. 1, pp. 1-22, [Online], Available: <http://www.springerlink.com/content/m84k33215567v165/fulltext.pdf> [13 Jun 2011].
- IBM (2010) "IBM Social Computing Guidelines - Blogs, wikis, social networks, virtual worlds and social media", *IBMers' Blogs*, [Online], Available: <http://www.ibm.com/blogs/zz/en/guidelines.html> [13 Jun 2011].
- ISACA (2010) *Social Media: Business Benefits and Security, Governance and Assurance Perspectives*, [Online], Available: <http://www.isaca.org/Knowledge-Center/Research/Documents/Social-Media-Wh-Paper-26-May10-Research.pdf> [13 Jun 2011].
- Kane, G., Fichman, R., Gallagher, J. and Glaser, J. (2009) "Community Relations 2.0", *Harvard Business Review*, Vol. 87, No. 11, pp. 45-50.
- Kozinets, R.V. (2002) "The Field Behind the Screen: Using Netnography for Marketing Research in Online Communities", *Journal of Marketing Research*, Vol. 39, No. 1, pp. 61-72.
- Lengrand, L. and Chatric, I. (1999) *Business Networks and the Knowledge-Driven Economy: An empirical Study Carried out in Europe and Canada*, Office for Official Publications of the European Communities, Luxembourg, [Online], Available: <http://www.insme.org/documents/Industrial%20aspects%20of%20the%20information%20society.pdf> [13 Jun 2011].
- Lev, B. (2001) *Intangibles – Management, Measurement and Reporting*, Brookings Institution Press, Washington, District of Columbia.
- McAfee, A. (2006) "Enterprise 2.0 – The Dawn of Emergent Collaboration", *MIT Sloan Management Review*, Vol. 47, No. 3, pp. 21-28.
- McElroy, M.W. (2002) "Social innovation capital", *Journal of Intellectual Capital*, Vol. 3, No. 1, pp. 30-39.

- Morgan, K. (1997) "The learning region: institutions, innovation and regional renewal", *Regional Studies*, Vol. 31, No. 5, pp. 491-103.
- Morse, E.A., Fowler, S.W. and Lawrence, T.B. (2007) "The Impact of Virtual Embeddedness on New Venture Survival: Overcoming the Liabilities of Newness", *Entrepreneurship Theory and Practice*, Vol. 31, No. 2, pp. 139-159.
- Nabeth, T. (2009) "Social web and identity: a likely encounter", *Identity in the Information Society*, Vol. 2, No. 1, pp. 1-5.
- Nahapiet, J. and Ghoshal, S. (1998) "Social Capital, Intellectual Capital, and the Organizational Advantage", *Academy of Management Review*, Vol. 23, No. 2, pp. 242-266.
- Nohria, N. (1992) "Is a network perspective a useful way of studying organizations? ", in: Nohria, N. and Eccles, R.G. (eds.), *Networks and organizations: Structure, form, and action*, Harvard Business School Press, Boston, Massachusetts, pp. 1-22.
- O'Reilly, T. (2005) "What is Web 2.0 – Design Patterns and Business Models for the Next Generation of Software", *Web 2.0 Archives*, [Online], Available: <http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html> [13 Jun 2011].
- Packalen, K.A. (2007) "Complementing Capital: The Role of Status, Demographic Features, and Social Capital in Founding Teams' Abilities to Obtain Resources", *Entrepreneurship Theory and Practice*, Vol. 31, No. 6, pp. 873-891.
- Pike, S., Rylander, A. and Roos, G. (2002) "Intellectual Capital Management and Disclosure", in: Choo, W.C. and Bontis, N. (eds.), *The strategic management of intellectual capital and organizational knowledge*, Oxford University Press, New York, pp. 657-671.
- Portes, A. (1998) "Social capital: its origins and applications in modern sociology", *Annual Review of Sociology*, Vol. 24, pp. 1-24.
- Putnam, R. (1995) "Bowling Alone: America's Declining Social Capital", *Journal of Democracy*, Vol. 6, No. 1, pp. 65-78.
- Putnam, R. (2000) *Bowling Alone - The Collapse and Revival of American Community*, Simon & Schuster, New York.
- Resnick, P., Zeckhauser, R., Friedman, E. and Kuwabara, K. (2000) "Reputation Systems: Facilitating Trust in Internet Interactions", *Communications of the ACM* [Electronic], Vol. 43, No. 12, pp. 1-7, [Online], Available: <http://presnick.people.si.umich.edu/papers/cacm00/reputations.pdf> [13 Jun 2011].
- Shane, S. and Cable, D. (2002) "Network Ties, Reputation, and the Financing of New Ventures", *Management Science*, Vol. 48, No. 3, pp. 364-381.
- Schröder, H.-H. (2006) "13 Wrapping It All Up - Past, Present and Future of Knowledge Integration", in: Jetter, A., Kraaijenbrink, J., Schröder, H.-H. and Wijnhoven, F. (eds.), *Knowledge Integration - The Practice of Knowledge Management in Small and Medium Enterprises*, Springer, Heidelberg, pp. 175-192
- Stinchcombe, A.L. (1965) "Organizations and social structure", in: March, J.G. (ed.), *Handbook of Organizations*, Rand-McNally, Chicago, Illinois, pp. 153-193.
- Sveiby, K.E. (2001) "A knowledge based theory of the firm to guide strategy formulation", *Journal of Intellectual Capital*, Vol. 2, No. 4, pp. 344-358.
- Tamaschke, L. (2003) "The role of social capital in regional technological innovation: seeing both the wood and the trees", in: Huysman, M., Wenger, E. and Wulf, V. (eds.) *Communities and Technologies*, Kluwer B.V., Deventer, the Netherlands, pp. 241-264.
- Uzzi, B. (1997) "Social structure and competition in interfirm networks: The paradox of embeddedness", *Administrative Science Quarterly*, Vol. 42, No. 1, pp. 35-67.
- Van Grove, J. (2009) "3 Great Social Media Policies to Steal From", *American Express Open Forum Articles*, [Online], 25 Sept, Available: <http://www.openforum.com/idea-hub/topics/technology/article/3-great-social-media-policies-to-steal-from-jennifer-van-grove-1> [13 Jun 2011].
- Vasileiadou, E. M. and Missler-Behr, M. (2010) "Relevance and Importance of Intellectual Capital Reporting for New Technology-Based Ventures", *Proceedings of the 2nd ECIC Conference*, March 29-30, Lissabon, Portugal, pp. 600-611.
- Von Hippel, E. (1978) "A customer-active paradigm for industrial product idea generation", *Research Policy*, Vol. 7, No. 3, pp. 240-266.
- Von Hippel, E. (1994) "'Sticky Information' and the Locus of Problem Solving: Implications for Innovation", *Management Science*, Vol. 40, No. 4, pp. 429-439.
- Wassermann, S. and Faust, K. (1994) *Social Network Analysis – Methods and Applications*, Cambridge University Press.
- Woolcock, M. (1998) "Social capital and economic development: Toward a theoretical synthesis and policy framework", *Theory and Society*, Vol. 27, No. 2, pp. 151-208.
- Woolcock, M. (2001) "The Place of Social Capital in Understanding Social and Economic Outcomes", *Canadian Journal of Policy Research*, Vol. 2, No. 1, pp. 11-17.
- Wu, L.-Y., Wang, C.-J., Chen, C.-P. and Pan, L.-Y. (2008) "Internal Resources, External Network and Competitiveness during the Growth Stage: A Study of Taiwanese High-Tech Ventures", *Entrepreneurship Theory and Practice*, Vol. 32, No. 3, pp. 529-549.
- Zhang, J., Souitaris, V., Soh, P. and Wong, P. (2008) "A Contingent Model of Network Utilization in Early Financing of Technology Ventures", *Entrepreneurship Theory and Practice*, Vol. 32, No. 4, pp. 593-613.
- Zukin, S. and Di Maggio, P. (1990) "Introduction", in: Zukin, S. and DiMaggio, P. (eds.) *Structures of Capital: The Social Organization of the Economy*, Cambridge University Press, New York, pp. 1-36.