Is LinkedIn making you more successful? The informational benefits derived from public social media

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Abstract
This article uses a social capital framework to examine whether and how the use of three types of publicly accessible social media (LinkedIn, Twitter, Facebook) is related to professional informational benefits among a representative sample of Dutch online users. Professional informational benefits were conceptualized as the (timely) access to relevant information and being referred to career opportunities. The effect of content and structure of the respective online network on professional informational benefits was examined on the general (users vs. non-users of a platform) and more fine-grained level (within users of a specific platform). Overall, users of LinkedIn and Twitter reported higher informational benefits than non-users, whereas the Facebook users reported lower informational benefits. Posting about work and strategically selecting ties consistently predicted informational benefits. The network composition mattered most on LinkedIn; strong and weak ties predicted informational benefits. The results demonstrate the usefulness of the social capital framework.

Keywords
Informational benefits, LinkedIn, social capital, social media

Social media such as Facebook, LinkedIn, or Twitter make it easier for people to maintain or extend their social networks and to increase their social capital. LinkedIn, for example, promises to make the worlds’ professionals “more productive and successful” by providing “access to people, jobs, news, updates, and insights that help you be great

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at what you do” (http://www.linkedin.com/about-us; retrieved 27 March 2015). This would be in line with one of the main findings of social capital research, namely, that weak ties, for example, acquaintances or former colleagues, provide people with non-redundant information (Burt, 1992; Granovetter, 1973). But is this really the case?

The majority of studies on social capital gained from social media use have focused on the benefits stemming from Facebook use (Johnson et al., 2013; Liu and Yu, 2013; Vitak and Ellison, 2012). Studies that looked at the informational benefits focused on specific behaviors such as question asking (Gray et al., 2013; Oeldorf-Hirsch et al., 2014). Some authors examined the effectiveness of (enterprise) social media in information technology (IT) companies (Archambault and Grudin, 2012; DiMicco et al., 2008; Wu et al., 2010). Recently, many conceptual papers came out that speculated on the potential of enterprise social media (ESM) for organizational knowledge sharing (Ellison et al., 2015; Majchrzak et al., 2013; Treem and Leonardi, 2012). However, to this date there is no study on the actual informational benefits that everyday people gain from the use of public social media. This article fills this gap.

Establishing that there is an actual effect of social media use is an important first step that must be completed before examining why these effects might occur (Rozin, 2009). Thus, the first goal of this article is to examine whether the use of publicly available social media is related to professional informational benefits. Informational benefits are conceptualized in line with Burt (1992) as (timely) access to information and receiving referrals. The second goal is to examine the processes on a more fine-grained level by looking at actual use of a specific platform and the role of the content and structure of the respective network, thereby demonstrating the usefulness of the social capital framework in this context. An online survey among a representative sample of Dutch online users was conducted to examine how the use of public social media affects professional informational benefits at the general (users vs non-users of a platform) and more specific (actual use of a platform) level.

Social capital and social media

Adler and Kwon (2002) define social capital as “the goodwill available to individuals or groups. Its source lies in the structure and content of the actor’s social relations. Its effects flow from the information, influence, and solidarity it makes available to the actor” (p. 23). The effects of social capital are often grouped roughly into the categories of informational and emotional benefits (Burt, 1992; Granovetter, 1973; Putnam, 2000). The general assumption is that strong ties, that is, ties with family members or close friends, provide people with emotional support, whereas weaker ties, that is, acquaintances or former colleagues, provide people with non-redundant information.

According to Burt (1992), “information benefits occur in three forms: access, timing, and referrals” (p. 13). Access means that people receive novel and needed information. Timing refers to receiving information in time and/or faster than others. Referrals cover the other direction of the information flow: being recommended to others, for example, for promotions or jobs. Whereas the first two aspects are mainly necessary for day-to-day operations, referrals are often important for career progress (Burt, 1992). This article focuses specifically on informational benefits in professional contexts because
conceptual papers as well as business networks themselves stress the potential of social media for professional knowledge sharing.

Social media make it easier to maintain and extend social networks and can thereby change the structure and the content of an actor’s social network. Studies have shown that the use of social network sites (SNS) mainly increases contact with weaker ties (Ellison et al., 2007; Steinfield et al., 2008).

With regard to the effects of social capital derived from social media, three lines of research can be distinguished: studies focusing on emotional support (not discussed here), studies focusing on informational support on a fine-grained level (e.g. question asking), and mostly conceptual work on the potential effects of (enterprise) social media for organizational knowledge sharing.

Studies on question asking or mobilization requests showed that people do get useful recommendations from their Facebook contacts (Ellison et al., 2013; Gray et al., 2013; Morris et al., 2010; Vitak and Ellison, 2012). Oeldorf-Hirsch et al. (2014) showed that answers found via search engines more often contain new information, but that people are more satisfied with the answers from their social network. These papers examined Facebook, where people predominantly stay in touch with people they also know face-to-face. According to the social capital framework, weaker ties in particular provide useful information; therefore, it is interesting to examine looser networks on LinkedIn or Twitter.

In the domain of organizational communication, there are some case studies focusing on specific ESM platforms (e.g. Beehive) in tech-savvy organizations such as IBM (e.g. DiMicco et al., 2008; Wu et al., 2010). There is also some initial evidence that public social media such as LinkedIn or Twitter are perceived as useful by at least some employees (Archambault and Grudin, 2012; Skeels and Grudin, 2009; Zhao and Rosson, 2009), but these findings are not systematically related to specific usage behaviors.

Other authors (in conceptual papers) used an affordances approach to speculate about the potential benefits (and pitfalls) of social media in organizations (Ellison et al., 2015; Fulk and Yuan, 2013; Majchrzak et al., 2013). Affordances are the action possibilities inherent in objects perceived by the users. According to this approach, different users may perceive the same social media feature in different ways (see Treem and Leonard, 2012, for a summary). The heightened visibility and persistence of content on social media, for example, might encourage some people to share their knowledge, but also scare off less confident individuals.

This article takes a different approach and builds on the social capital framework which focuses on the content and structure of networks. It compares three types of social media that differ in their primary purpose and architectural elements, but share the affordances of visibility, persistence, and association: LinkedIn, Twitter, and Facebook. The focus of this article is on the actual use of these platforms rather than the perceptions. In the first step, the effect of using (vs non-using) the three platforms on professional informational benefits is examined. In the second step, a more fine-grained analysis is conducted by focusing on the actual usage patterns that predict informational benefits within each platform. A similar approach has been taken by Valenzuela et al. (2009) for examining the effects of Facebook use on civic/political participation and trust.
Across platforms: effects of social media platform on professional informational benefits

Social media differ in their primary purpose and the architectural elements that suggest the intended form of use (Papacharissi, 2009). On Facebook, many profile fields refer to hobbies, favorite music, and other personal interests; staying in touch with family and friends is the main motivation for use (Ellison et al., 2007). On LinkedIn or other business networks, the focus is clearly on professional life (Papacharissi, 2009). The profile fields resemble the categories of a CV but do not provide fields for hobbies or favorite music. On Twitter, there is less space for profile information and the tweets are limited to 140 characters. The networks are asymmetrical. Twitter can be used in different ways, for example, as a friend-following network or as a news and event-following medium (Rogers, 2014).

Building on the definition of social capital by Adler and Kwon (2002), the basic assumption of this article is that the source of social capital lies in the content and structure of an actors’ network. When it comes to professional informational benefits, a platform that provides work-related content and access to weaker ties in the relevant field should result in higher informational benefits. Papacharissi (2009) demonstrated that LinkedIn has a strong professional focus that offers little space for non-professional use. It can therefore be assumed that most of the content on LinkedIn is work-related. People are also more likely to follow colleagues, former colleagues, and important people in their field on business networks than on Facebook (Utz and Muscanell, 2014). Moreover, people add more weak contacts to their business network than to their Facebook account (Utz and Muscanell, 2014). Weaker contacts are regarded as more useful in providing non-redundant information (Granovetter, 1973). Thus, it can be assumed that the structure and content of the social networks people maintain on LinkedIn are well suited for providing professional informational benefits:

$$H1. \text{ LinkedIn users report higher professional informational benefits than non-users.}$$

The same arguments, albeit to a lesser degree, can be made for Twitter because Twitter can be used as a broadcasting medium for professional content and also for interaction with friends (Archambault and Grudin, 2012). Zhao and Rosson (2009) found that microblogging helped to create awareness of what colleagues are working on. Morris et al. (2010) reported that IT professionals used Twitter for asking technical questions but Facebook for asking questions about home or entertainment. Assuming that these technical questions are often work-related, this indicates that Twitter use has at least some positive effects of informational benefits:

$$H2. \text{ Twitter users report higher professional informational benefits than non-users.}$$

With regard to Facebook, two lines of reasoning are possible. Skeels and Grudin (2009) found that Facebook was used for keeping in touch with colleagues. Regularly reading colleagues’ status updates was perceived as increasing tie strength and trust. Trust is an important enabler of knowledge sharing (Levin and Cross, 2004); Facebook
use could thus increase informational benefits via increased trust. However, most posts on Facebook are about everyday activities with a strong focus on positive and entertaining aspects (Barash et al., 2010), and users mainly ask questions about home, family, and entertainment (Ellison et al., 2013; Morris et al., 2010). Based on these findings, Facebook seems less suited for professional information exchange. Because of these opposing lines of argumentation, an open research question regarding the effects of Facebook use is posed:

**RQ1.** Do Facebook users report higher or lower professional informational benefits than non-users?

Whereas this first comparison is rather technologically deterministic and focuses on the (main) purpose of a specific platform, the next section focuses on the question of how the actual use of these platforms affects informational benefits. Because the effects of content and network structure can only be leveraged when a platform is actually used, the effects of usage are addressed first before turning to content and structure.

**Within platforms: effects of usage, content, and network on informational benefits**

**Usage.** Social media can be used in a rather passive way by mainly reading what others post or in a more active way by posting regularly (Burke et al., 2011). There are several reasons why reading could increase professional informational benefits. Reading might simply facilitate serendipity—readers can stumble upon relevant new information (Zhao and Rosson, 2009). Moreover, checking the profiles of co-workers or relevant people in the field and following their informal communication on social media can help people to build a transactive memory (Fulk and Yuan, 2013), a cognitive representation of who knows what in their network (Wegner, 1987). Next to this cognitive effect, socio-emotional effects are also conceivable. Leonardi and Meyer (2015) argue that the ambient awareness stemming from reading newsfeeds functions as a social lubricant, making it easier to approach colleagues for advice. Moreover, regularly reading what other people are doing could also create ambient intimacy and increase trust, thereby fostering knowledge sharing (Fulk and Yuan, 2013). Thus, a positive effect of reading on social media platforms can be expected:

**H3.** Frequency of reading is positively related to professional informational benefits.

Active participation, that is, posting updates or writing contributions in groups (in the case of LinkedIn and Facebook), can also increase the informational benefits people receive. Several studies have shown that people who ask questions on social media receive useful answers from their networks (Gray et al., 2013; Paul et al., 2011). People who post frequently should also be perceived as more trustworthy, either simply because mere exposure increases liking and trust (Zajonc, 1968) or even more when they make valuable contributions. Because people share more knowledge with people they trust (Levin and Cross, 2004), active posters should be more likely to receive useful information when
they ask for it. Moreover, people who display their expertise regularly can build reputation in their field and might be more likely to be referred to attractive career opportunities. These arguments lead to the next hypothesis:

\[H_4\]. Frequency of active participation is positively related to professional informational benefits.

After controlling for the frequency of passive and active social media use, the next sections address the role of content and structure of the respective networks.

**Content.** Active participation might be necessary, but not sufficient for informational benefits. The content of the posts is more important because only work-related posts demonstrate one’s own expertise or professional information needs. Even Facebook users might gain informational benefits when they use Facebook in a somewhat atypical way and post work-related content (Vitak and Ellison, 2012). Thus, according to the social capital framework, the content posted should matter more than the frequency of posting, regardless of the platform used. That means that the effects of active participation should become smaller or even non-significant once the analysis controls for the content of the posts:

\[H_5\]. Posting professional content predicts professional informational benefits above and beyond frequency of active participation.

**Network.** The source of social capital lies not only in the content but also in the structure of an actor’s social network (Adler and Kwon, 2002). The next set of hypotheses focuses therefore on the structure of the social network. Prior research on informational benefits focused almost exclusively on the role of strong and weak ties, although Granovetter (1973) also mentions a third type of ties: absent ties or nodding ties—people we nod to when we meet them on the street, but we do not talk to. These ties have been considered as useless (Granovetter, 1973). Nowadays, many people add strangers to their online networks. Haythornthwaite (2005) introduced the term latent ties to describe ties that are “technologically possible but not yet activated socially” (p. 137) and argues that they might become weaker ties later. This raises the question of whether the classical assumptions about tie strength still hold in an environment where the boundaries between strong, weak, and latent ties blur.

The classical assumption that weak ties provide more novel information (Burt, 1992; Granovetter, 1973) would lead to the hypothesis that mainly the weak ties should increase informational benefits. In line with this hypothesis, Lampe et al. (2012) reported a relationship between weak ties and perceived usefulness of Facebook for information seeking. However, even in offline contexts, the relationship between weak ties and informational benefits has not always been found. Hansen (1999) and Reagans and McEvily (2003) both showed that complex knowledge is shared more easily with strong ties. Burke and Kraut (2013) reported that people who lost their job had a higher chance of finding a new job when they talked to strong Facebook ties. Based on these findings, it could also be expected that contact with mainly strong ties results in higher informational benefits.

Even latent ties might provide informational benefits. If the notion that weak ties have more access to novel information than strong ties is further stretched, it can be assumed
that latent ties can be important information sources. Because of these contrasting lines of argumentation, a research question about network structure, that is, the number of strong, weak, and latent ties, is formulated:

**RQ2.** How is the number of strong, weak, and latent ties related to professional informational benefits?

The number of strong, weak, and latent ties is just a very rough estimator of the actual network structure of individuals. A better indicator would be the actual expertise and the exact network position of each and every tie. Assessing the complete networks of people on three different platforms in one study is not feasible and also problematic from an ethical/privacy perspective. Therefore, the strategic networking behavior of respondents was assessed as an additional indicator for the structure of the network. Strategic networking behavior means that people deliberately add/friend individuals who could become relevant for them (e.g. someone with expertise or a high status in their field). Individuals who engage in strategic networking behavior should retrieve more informational benefits from their networks than individuals who randomly add or accept contacts. Thus, the last hypothesis is as follows:

**H6.** Strategic networking is positively related to professional informational benefits.

To test these hypotheses, an online survey among working Dutch online users was conducted.

**Method**

**Participants**

A sample of 3367 people, representative for Dutch online users with regard to gender, age, education level, and place of living (urban/rural), were recruited by GfK intomart, a professional research company, in autumn 2013. Only the 1959 respondents who worked were included in the current analysis. Of this subsample, 56% were male, reflecting the fact that more men than women work in the Netherlands. In all, 23% had a low education level, 46% had a medium education level, and 31% had higher education; 23% were 18–29 years old, 22% were 30–39, 26% were 40–49, 27% were 50–64, and a small fraction was still working although they were 65 or older.

**Measures**

**Social media use.** Respondents indicated whether they had a profile on (a) a privately used SNS such as Facebook, (b) a business network such as LinkedIn, and/or (c) a microblogging service such as Twitter. Respondents who had a profile on a specific platform received follow-up questions for the respective platform. Respondents indicated how often they read and posted messages on the respective platform. Answer categories were “several times a day,” “daily,” “several times a week,”
“several times per month,” “rarely,” and “never.” Values were later recoded such that higher scores represent more active usage. Users of Facebook and LinkedIn also indicated their activity in groups, an additional communication feature, on a 5-point scale ranging from “not at all” to “regularly.”

**Professional content.** Respondents indicated how often they posted about their professional successes, general information about their work, or asked for advice on their work on 5-point scales ranging from “never” to “very often.” Reliability of the three items was high, $\alpha = .84, .83, \text{ and } .88$ for Facebook, LinkedIn, and Twitter, respectively.

**Network composition.** Respondents were told that it is helpful to open the social media profile in a separate window to answer the network composition questions. Next to the overall number of friends/connections/followers/followees, respondents were asked to estimate how many people in their respective online networks are strong, weak, or latent ties. Descriptions of these three types of ties were given. For latent ties, respondents were asked how many of their social media contacts they would not even recognize if they would meet them on the street. Respondents were free to enter the absolute number or a percentage. Percentages were later converted into absolute numbers. For the regression analyses, the numbers were log-transformed.

**Strategic networking.** Respondents indicated their agreement with five statements such as “I invite people who might sometimes be useful for me” or “I accept invitations from important people” on 5-point scales ranging from “totally disagree” to “totally agree.” The item on accepting invitations was dropped for Twitter because it is not applicable. Cronbach’s $\alpha$ was .69, .79, and .72, respectively, for Facebook, LinkedIn, and Twitter.

**Professional informational benefits.** The dependent variable, professional informational benefits, was assessed with five items from Wickramasinghe and Weliwitigoda (2011). These capture the three dimensions of access, timeliness, and referrals (Burt, 1992): “I receive information about innovations in my field from my network members, timely,” “The relationships that I maintain are helpful in making career moves,” “I can get access to knowledge that is helpful in mastering job tasks from my network members,” “I receive information about job opportunities from my network members,” and “Contacts that I have established are essential for my career success.” Respondents indicated their agreement with the statements on 5-point scales ranging from “totally disagree” to “totally agree.” Although the three dimensions can be distinguished theoretically, an exploratory factor analysis showed that empirically all items loaded on a highly consistent ($\alpha = .90$) single factor that explained 71.43% of the variance.

**Results**

**Descriptives**

Of the respondents, 76% had a profile on Facebook or another SNS used mainly for private purposes, 32% had a profile on LinkedIn or another business network, and 18%
had a profile on Twitter or another microblogging service. Facebook (96%), LinkedIn (89%), and Twitter (97%) were by far the most frequently used platforms; therefore, the terms Facebook/LinkedIn/Twitter users will also be used to refer to the more inclusive groups. In total, 52% had an account on only one platform, 23% used two platforms (mostly Facebook and LinkedIn), and 9% were active on all three platforms. The means, standard deviations, and intercorrelations of the measures are displayed separately for each platform in Table 1.

For better interpretability, means for number of ties are based on untransformed data; correlations involving number of ties are based on ln-transformed data.

**Effects of social media platform**

To examine whether the use of a specific platform was related to professional informational benefits, a step-wise hierarchical regression was conducted. In the first block, age, gender, education level, and income were entered as control variables. In the second block, use of LinkedIn, Twitter, and Facebook was added. The control variables explained 6% of the variance, \( F(4, 1954) = 31.54, p < .001 \). Males (\( \beta = .06, p < .001 \)), younger (\( \beta = -.15, p < .001 \)), and higher educated people (\( \beta = .17, p < .001 \)) reported higher informational benefits. Adding the three social media use variables doubled the amount of explained variance significantly to 12%, \( F(3, 1951) = 44.68, p < .001 \). Using LinkedIn significantly increased informational benefits, \( \beta = .22, p < .001 \). Using Twitter also resulted in a significant increase in informational benefits, albeit to a lesser degree, \( \beta = .07, p < .001 \). H1 and H2 are thereby supported.

With regard to RQ1, it turned out that using Facebook resulted in significantly lower informational benefits, \( \beta = -.12, p < .001 \). Interestingly, in Step 2, the effect of gender was no longer significant (\( \beta = .01 \)) and the effect of education level decreased (\( \beta = .08, p < .001 \)).

**Effects within platforms**

**Analytical strategy.** Separate analyses were run for the LinkedIn users (\( n = 627 \)), Twitter users (\( n = 348 \)), and Facebook users (\( n = 1489 \)). Again, hierarchical regression analyses were conducted to test whether adding another block of variables significantly increased the amount of explained variance. In Step 1, the demographic variables were included as controls. In Step 2, the usage variables (e.g. reading, active participation) were added. In Step 3, the content was added, and in the final step the network structure variables (network composition, strategic networking) were added. To make it easier to identify similarities and differences between the platforms, the results are reported per step and summarized in Table 2.

**Demographic variables.** As can be seen in Table 2, Step 1 showed consistently that younger (\( \beta s = -.09, -.15, -.19 \) for LinkedIn, Twitter, and Facebook users, respectively) and higher educated (\( \beta s = .11, .17, .18 \) participants derived higher informational benefits. The betas vary because the subsamples differ in demographic composition. The amount of explained variance was between 2% and 7%.

**Usage.** Adding the usage variables increased the amount of explained variance significantly, but the most in case of LinkedIn (\( \Delta R^2 = .09 \)). Only on LinkedIn, a significant
Table 1. Means, standard deviations, and intercorrelations of the measures per type of social medium.

|                  | M (SD)     | 1     | 2    | 3     | 4     | 5     | 6     | 7     | 8     |
|------------------|------------|-------|------|-------|-------|-------|-------|-------|-------|
| LinkedIn         |            |       |      |       |       |       |       |       |       |
| 1. Informational benefits | 3.04 (0.85) |       |      |       |       |       |       |       |       |
| 2. Reading       | 2.22 (1.14) | .21** |      |       |       |       |       |       |       |
| 3. Posting       | 1.36 (0.80) | .18*** | .47*** |       |       |       |       |       |       |
| 4. Groups        | 1.95 (1.17) | .29*** | .44*** | .45*** |       |       |       |       |       |
| 5. Professional content | 1.92 (0.99) | .26*** | .41*** | .54*** | .45*** |       |       |       |       |
| 6. Number of strong ties | 18.15 (37.75) | .24*** | .26*** | .21*** | .35*** | .25*** |       |       |       |
| 7. Number of weak ties | 94.20 (144.04) | .24*** | .28*** | .03 | .25*** | .12*** | .49*** |       |       |
| 8. Number of latent ties | 36.87 (88.42) | .13** | .30*** | .18*** | .23*** | .15*** | .31*** | .56*** |       |
| 9. Strategic networking | 2.73 (0.92) | .23*** | .30*** | .20*** | .29*** | .36*** | .28*** | .31*** | .36*** |
| Twitter          |            |       |      |       |       |       |       |       |       |
| 1. Informational benefits | 2.94 (0.90) |       |      |       |       |       |       |       |       |
| 2. Reading       | 3.09 (1.58) | .07 |      |       |       |       |       |       |       |
| 3. Posting       | 1.89 (1.20) | .13* | .49*** |       |       |       |       |       |       |
| 4. Professional content | 1.81 (1.02) | .30*** | .31*** | .56*** |       |       |       |       |       |
| 5. Number of strong ties | 9.22 (19.25) | .20** | .31*** | .42*** | .39** |       |       |       |       |
| 6. Number of weak ties | 33.58 (59.31) | .17*** | .31*** | .38*** | .36*** | .52*** |       |       |       |
| 7. Number of latent ties | 34.48 (86.27) | .13* | .31*** | .55*** | .34*** | .29*** | .57*** |       |       |
| 8. Strategic networking | 2.48 (0.93) | .30*** | .39*** | .42*** | .52** | .37*** | .43** | .44*** |       |
| Facebook         |            |       |      |       |       |       |       |       |       |
| 1. Informational benefits | 2.62 (0.97) |       |      |       |       |       |       |       |       |
| 2. Reading       | 3.66 (1.37) | .08** |      |       |       |       |       |       |       |
| 3. Posting       | 2.10 (1.16) | .11*** | .40*** |       |       |       |       |       |       |
| 4. Groups        | 1.97 (1.27) | .18*** | .29*** | .38*** |       |       |       |       |       |
| 5. Professional content | 1.55 (0.80) | .31*** | .22*** | .39*** | .33*** |       |       |       |       |
| 6. Number of strong ties | 24.33 (37.14) | .18*** | .36*** | .26*** | .29*** | .22*** |       |       |       |
| 7. Number of weak ties | 68.14 (128.82) | .11*** | .38*** | .20*** | .27*** | .18*** | .46*** |       |       |
| 8. Number of latent ties | 19.61 (133.13) | .10*** | .14*** | .25*** | .24*** | .20*** | .20*** | .36*** |       |
| 9. Strategic networking | 2.07 (0.75) | .26*** | .21*** | .34*** | .29*** | .46*** | .21*** | .25*** | .32*** |

SD: standard deviation.

n = 627, 348, and 1489 for LinkedIn, Twitter, and Facebook, respectively.

*p < .05; **p < .01; ***p < .001.
Table 2. Hierarchical regression analysis predicting informational benefits from usage of the different platforms.

|                      | LinkedIn |     |     |      | LinkedIn |     |     |     |     | Facebook |     |     |     |      |
|----------------------|----------|-----|-----|-----|----------|-----|-----|-----|-----|-----------|-----|-----|-----|-----|
|                      | ΔR²      | β respective | β final | ΔR² | β respective | β final | ΔR² | β respective | β final | ΔR² | β respective | β final |
| **Step 1**           |          | step | model |     |          | model |     |          | model |     |          | model |
| Age                  | .02*     | -09* | -05 |     | -.15**   | -13** | -.19*** | -.11*** |
| Gender               | .03      | -04  |     |     | .03      | .01   | .05  | .01   |
| Education level      | .11**    | .05  |     |     | .17**    | .16** | .18*** | .20*** |
| Income               | .01      | -02  |     |     | .05      | .06   | .02  | .02   |
| **Step 2**           | .09***   |      | .05 |     |          |       | .03*** |       |
| Reading              | .11*     | .03* | .02 |     | .02      | .05   | -.04 | -.05  |
| Posting              | .03      | -01  |     |     | .13**    | .08   | .09** | .04   |
| Groups               | .22***   | .13** | n.a. | n.a. | .13***   | .04   |       |       |
| **Step 3**           | .02**    |      | .02 |     | .07***   | .32*** | .21** | .30*** |
| Professional content | .16**    | .13** |     |     |          |       |       |       |
| **Step 4**           | .04***   |      | .03 |     | .03***   | .13*** |       |       |
| Number of strong ties| .10*     |     |     |     | .07      |       |       |       |
| Number of weak ties  | .15**    |     |     |     | .05      |       |       |       |
| Number of latent ties| -.09     |     |     |     | -.04     |       |       |       |
| Strategic networking | .11*     |     |     |     | .21**    |       |       |       |
| Total R² adjusted    | .15***   | .15*** |     | .19*** |           |       |       |       |

Gender (1 = female, 2 = male).

*p < .05; **p < .01; ***p < .001.
effect of reading ($\beta=.11, p<.05$) emerged. H3 is thus only partially supported. In line with H4, posting had a positive effect on informational benefits on Facebook ($\beta=.09, p<.01$) and Twitter ($\beta=.13, p<.01$), but not on LinkedIn ($\beta=.03, ns$). For Facebook and LinkedIn, posting in groups, the second indicator of active participation, clearly predicted informational benefits derived by LinkedIn ($\beta=.22, p<.001$) and Facebook users ($\beta=.13, p<.001$).

**Content.** Controlling for content increased the explained variance by 7% for Twitter and Facebook and 2% for LinkedIn. The betas ranged between .22 and .32, and the effects of posting became smaller or even non-significant (see the final model). H5 is therefore supported.

**Network structure.** The network variables explained an additional 3–4% of variance. In line with H6, people who scored high on strategic networking ($\beta$s=.11, .21, and .15 for LinkedIn, Twitter, and Facebook users, respectively) reported higher informational benefits. People who had more strong ties on LinkedIn ($\beta=.10$) and Facebook ($\beta=.13$) also reported higher informational benefits. The number of weak ties mattered only on LinkedIn ($\beta=.15, p<.01$), whereas the number of latent ties had no significant effect at all. Interestingly, for LinkedIn users, the effects of age and education level were no longer significant in the last step.

**Discussion**

Whereas several papers have speculated about the potential of social media for organizational knowledge sharing, this article demonstrated for the first time within a large representative sample of Dutch online users that working professionals actually do receive professional informational benefits (see Table 3 for a summary of hypotheses and results). LinkedIn users reported the highest amount of professional informational benefits, followed by Twitter users. In general, Facebook use was associated with lower informational benefits. Within each platform, posting professional content (in groups) and strategic networking were consistently related to increased informational benefits. On LinkedIn, strong and weak ties contributed to informational benefits, whereas on Facebook only the strong ties mattered.

This study extended prior research in several ways. First, it demonstrated the effects of social media use on professional informational benefits, both on a general level (users vs non-users of a platform) and on a more fine-grained level. To my knowledge, this is the first study that systematically compares the effects of Facebook, LinkedIn, and Twitter use. Moreover, the present sample is representative for the Dutch online users with regard to age, sex, education level, and urban/rural population. Demonstrating a phenomenon, in this case, the higher professional informational benefits of LinkedIn and Twitter users, is an important first step in research that must come before examining the underlying mechanisms and the direction of causality (Rozin, 2009).

Second, this study provided large-scale quantitative data which test some of the claims proposed in conceptual papers on the potential of social media for organizational knowledge sharing. In this prior work, several reasons why reading should
increase informational benefits have been postulated: serendipity (Zhao and Rosson, 2009), cognitive processes such as constructing a transactive memory (Fulk and Yuan, 2013), and socio-emotional processes such as ambient awareness as a social lubricant and increased trust (Leonardi and Meyer, 2015). Although the zero-order correlations were always positive, reading predicted informational benefits only in the case of LinkedIn. This pattern points to the importance of content on the platform. On LinkedIn, there is a strong professional focus, making it more likely to stumble upon relevant information and to build a transactive memory and trust in relevant experts. However, the effect was relatively small (final beta .03) indicating that the role of reading is only minor. Stronger effects were found for posting. Posting in groups turned out to be more important than posting status updates. It has already been shown that status

| Across platforms (users vs non-users) | Hypotheses/RQ | Results |
|--------------------------------------|---------------|---------|
| **H1.** Users of business networks report higher professional informational benefits than non-users. | Supported |
| **H2.** Users of microblogging services report higher professional informational benefits than non-users, but this effect is smaller than the effect of use of business networks | Supported |
| **RQ1.** Do Facebook users report higher or lower professional informational benefits than non-users? | Lower benefits |

| Within platforms (actual use, content + structure of network) | Hypotheses/RQ | Results |
|---------------------------------------------------------------|---------------|---------|
| **H3.** Frequency of reading is positively related to professional informational benefits. | Partly supported (only for LinkedIn) |
| **H4.** Frequency of active participation is positively related to professional informational benefits. | Partly supported (no significant effect of posting on LinkedIn, but significant on all other indicators and platforms) |
| **H5.** Posting professional content predicts professional informational benefits above and beyond frequency of active participation. | Supported; effect of active participation diminishes when controlling for content |
| **RQ2.** How is the number of strong, weak, or latent ties related to professional informational benefits? | Positive effect of strong and weak ties on LinkedIn; only strong ties matter on Facebook; no effect on Twitter |
| **H6.** Strategic networking results in higher professional informational benefits. | Supported |

RQ: research question.

Table 3. Overview over hypotheses, RQ and results.
updates are mainly entertaining or self-promoting (Barash et al., 2010); the present research indicates that the more serious discussion takes place in groups. Future research could systematically compare the content of public updates and more private group discussions on LinkedIn.

Third, this study demonstrates the usefulness of the social capital approach in this domain on both levels—the comparison across platforms as well as within platforms. Building on Adler and Kwon’s (2002) definition of social capital, it was assumed that the content and the structure of a user’s network matter. The three platforms differ in their focus on work-related content and network structure. As predicted, informational benefits were highest for LinkedIn users and smaller for Twitter users. Interestingly, Facebook users reported significantly lower informational benefits than non-users.

The more fine-grained analysis within the group of users for each platform further demonstrated the important role of the social capital variables. The content and structure of social networks explained the amount of informational benefits retrieved above and beyond the actual usage variables. For Twitter and Facebook, the effects of posting were no longer significant once content and structure of the network were included in the analysis, and for LinkedIn, the effects of reading and posting in groups were significantly reduced. Instead, across all three platforms, posting professional content and strategic networking were predictors of informational benefits. Interesting, but meaningful differences between the platforms emerged. The effects of posting professional content and strategic networking were stronger for Facebook and Twitter, the two platforms on which posting professional content and networking with colleagues is not the norm. Thus, when the technological architecture of a platform does not strongly imply professional use, users can compensate for this by using the available features in a somewhat atypical way (posting about work on Facebook) and by carefully selecting relevant contacts.

These results also contribute to research on the role of tie strength in retrieving informational benefits. Prior research in organizational contexts has already shown that people often prefer to turn to strong ties, even if the weaker ties would provide the more useful information (Hansen, 1999; Levin and Cross, 2004; Reagans and McEvily, 2003). On social media, the various contexts collapse (Marwick and boyd, 2011), so the question arises as to whether the classical assumptions still hold and whether latent ties can also contribute to professional informational benefits. The results for LinkedIn users mirror the findings from research on organizational knowledge sharing: strong and weak ties both show a positive relationship with the reported informational benefits. On Facebook, only the strong ties mattered. This is in line with the results of Burke and Kraut (2013). However, it remains unclear as to whether these results are due to the role of trust in strong ties or the Facebook algorithm that exposes users primarily to messages from strong ties (or what Facebook identifies as strong ties). Interestingly, the number of strong, weak, and latent ties on Twitter had no significant relationship with professional informational benefits in the regression analysis. Twitter is much more dynamic and tweets are as default directed to all followers. Many people just skim through the most recent tweets, so reactions come mainly from users who are online at the same time. Thus, the proportion of experts or important people in the Twitter network might matter more than tie strength. In line with this argumentation, the effect of strategic networking was higher on Twitter than on LinkedIn and Facebook.
This study extended prior research by exploring the potential of social media to turn latent ties into useful ties (Haythornthwaite, 2005). Although the number of latent ties was positively related to professional informational benefits, this effect became non-significant and even negative when controlling for the other variables in the regression analyses. On Facebook, this could again be explained with the algorithm which rarely exposes users to posts from latent ties, making it thereby unlikely that latent ties contribute valuable information. The finding is puzzling for LinkedIn on Twitter. It could be that ties are no longer classified as latent ties but as weak ties when they provide useful information. The classification of ties would then be influenced by information exchange on a dyadic level. Unfortunately, the current cross-sectional data do not allow to test for the direction of the effect. Longitudinal studies are needed to examine under which circumstances latent ties can provide useful information on social media.

The cross-sectional design is a limitation of this study because it remains unclear whether LinkedIn increases informational benefits or whether successful people are more likely to use LinkedIn. The operationalization of tie strength could also be discussed. Participants might have problems with correctly estimating the number of strong, weak, and latent ties. However, the focus was not on the exact tie strength with a specific person but a rough characterization in strong, weak, and latent ties. People usually know how many close friends they have on social media. Some people only add people they also know in real life, so at least these individuals should be able to correctly estimate the number of latent ties. Nevertheless, the present measure is a rather crude proxy for the structure of a social network. For a first exploratory study this is acceptable, but further research should definitely use more sophisticated measures.

Another limitation is that activity was measured on ordinal scales. In general, the use of self-report measures could be seen as a source of demand effects. However, the respondents first filled in the blocks on social media use and then a large number of indicators of social capital (e.g., stress, loneliness, social support, civic engagement). More important, I did not assess informational benefits specifically derived from Facebook versus LinkedIn versus Twitter—this might indeed have created demand characteristics. Instead, all participants (also non-users of social media) received the same general professional informational benefits scale.

This use of a general rather than a medium-specific measure explains also on the first glance low amount of explained variance (15–19% overall; 13–15% explained by social media use). Even lower amounts of explained variance (4–9%) were reported by Valenzuela et al. (2009) who also used general dependent variables such as life satisfaction or civic engagement. Considering that there are many offline sources of informational benefits (e.g., participation in mentoring programs), the amounts of explained variance purely by social media use are not so low.

A big strength of this study is the representative sample of working Dutch online users. Many studies use student samples or focus on specific organizations, making it difficult to generalize the results to the population. Another strength is that the study provided empirical data about the informational benefits retrieved from three different social media. The vast majority of social media research focuses on Facebook, but there are very few studies on LinkedIn. LinkedIn users reported the largest informational benefits, so business networks definitely deserve more attention by researchers. Future
research could examine whether this result can be generalized to other business networks. In German-speaking countries, for example, the business network Xing is the market leader. Posting about content and strategic networking mattered on all three platforms, demonstrating the generalizability of the findings based on the social capital framework. The largest contribution stems from the step-wise hierarchical regressions. This article goes beyond papers examining only the frequency of feature use and demonstrates that the content and structure of the social media network—theory-driven variables derived from the social capital framework—matter more than the frequency of reading and posting.

Taken together, this study provided clear evidence that social media use can increase social capital in the professional domain. Content and structure of the online network matter. In general, users of social media that are explicitly designed for the purpose of professional knowledge sharing report the highest informational benefits. However, it also matters how people actually use social media to shape the content and structure of their online network. Irrespective of platform, posting about professional content and strategically adding relevant people to one’s network turned out to be the most important predictors of professional informational benefits.

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