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van den Berg, B.; Pekárek, M.E.

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SpotAFriendNow: Social Interaction through Location-Based Social Networks

Bibi van den Berg and Martin Pekarek

Tilburg University,
Tilburg Institute for Law, Technology and Society
P.O. Box 90153, 5000 LE Tilburg, The Netherlands
<http://www.tilburguniversity.nl/faculties/law/research/tilt/>

Abstract. Location-based social networks – or ‘SpotAFriendNow applications’, as we call them – are currently undergoing tremendous growth. These mobile Internet applications combine geographic or locational data with social network functionalities. To date, researchers have extensively discussed two trends in network and mobile technologies over the last decades: (1) the virtualization of our social interactions in everyday life; (2) the ongoing individualization and the anti-social nature of mobile communication. We argue that SpotAFriendNow applications can be understood as an interesting response to these two trends. First, since these applications base their behaviors on the user’s bodily location in the real world, the physical is returned to the equation in technologically mediated social interactions. Second, SpotAFriendNow applications enable individuals to connect with (unknown) others in their physical proximity, thereby facilitating what we call ‘*ad hoc intimacy*’, and thus countering the ongoing trend of hyper-individualization enabled by (mobile) technologies.

Keywords: location-based services, social network sites, SpotAFriendNow, virtualization, sociality, mobile technologies.

1 Introduction

In recent years millions of computer users worldwide have turned to the blossoming realm of *social network sites* on the Internet – domains such as Facebook, Friendster and LinkedIn, in which users create a personal profile to present themselves to others, and engage in contact with those they mark as their connections, i.e. friends, colleagues, family members, old schoolmates and so on and so forth [1]. Many social network sites have also started offering their functionality for mobile Internet use. Facebook and LinkedIn are examples in case. These mobile social network applications enable users to communicate their whereabouts and activities to their network in real time using their mobile phones or PDAs, thereby greatly increasing the dynamics of the platform.

One of the interesting phenomena that have emerged in recent years is what we label ‘*SpotAFriendNow applications*’: mobile Internet applications that combine geographic or locational data with social network functionalities. These applications use a map as their main interface, on which the user’s location is visualized. The map also shows where other members of the same service are located – ranging from one’s direct physical proximity to entire continents, depending on how far one chooses to zoom in or out. By clicking on the icon of other people on the map the user can make contact with them, for instance through instant messaging or a voice connection. All SpotAFriendNow applications offer the possibility of marking other users as ‘friends’, a functionality similar to that of social network sites.

The emergence of SpotAFriendNow applications raises a variety of interesting questions regarding the changes brought about by mobile technology in social interaction and the construction and maintenance of social networks. In this article we will start with a brief overview of SpotAFriendNow applications, and describe their key characteristics and functionalities. After that we will analyze what is new in these applications when compared to other location-based services and to regular social network sites.

2 SpotAFriendNow Applications: An Overview

In recent years a new kind of application has started to appear for mobile phones and PDAs, which we call *SpotAFriendNow applications*. In these applications social network site facilities are mixed with real-world location information. Generally, individuals may use these kinds of applications for one of two goals: (1) finding members of the same network (possibly but not necessarily existing contacts) within the user’s physical vicinity, to connect with or even to meet; or (2) finding out where existing contacts find themselves on the entire globe. While the former focuses on the physical *nearness* of existing and possible new contacts, the latter provides information regarding the ‘*whereness*’ of existing contacts. Note that both of these goals are captured in the term ‘SpotAFriendNow’: one can use these applications to ‘spot’ other members of the same service in one’s physical proximity, contact them and perhaps even add them to one’s list of contacts as a new friend, but one can also use it to find out in which ‘spot’ existing contacts are physically located. The ‘now’ in SpotAFriendNow points towards its real-time character.

SpotAFriendNow applications have recently truly started blossoming, or even mushrooming indeed. ABI Research, a research company specializing in investigating emerging technologies, reports that in 2008 the number of subscribers to handset-hosted location-based services (LBS) increased to more than 18 million. In terms of total subscribers, mobile-based navigation services are still the most popular, but two other application areas – enterprise and community (including social networking) – posted the highest year-to-year growth rates [2]. In a more recent study, Gartner Inc., another information technology research company, forecasts a growth of subscribers to location-based services from 41 million US

dollar in 2008 to 95.7 million US dollar in 2009, while revenue is anticipated to increase from 998.3 million US dollar in 2008 to 2.2 billion US dollar in 2009 [3]. Although the figures of these studies vary by a sizable margin, they both indicate a large uptake of mobile location-based services. In yet another research report, ABI Research focuses specifically on SpotAFriendNow applications, thus concentrating on a specific area of the mobile location-based services industry. It forecasts that the use of location-based mobile social networking applications, or what we have called SpotAFriendNow applications in this article, will continue to expand worldwide and calculates that in all likelihood there will be more than 82 million subscriptions by 2013 [4].

One of the most obvious questions to ask is why these location-based social network services have suddenly gained such popularity. In the rest of this article we attempt to provide some answers to this question. The easiest and most obvious answer would be, of course, that the *technological requirements* for the widespread use of SpotAFriendNow applications have been met to such an extent that a tipping point for their dissemination on a grand scale seems straightforward. An increasing percentage of mobile phones has access to mobile (3G) Internet, and the speed of mobile Internet is steadily increasing. More and more users include mobile Internet use in their subscription. Moreover, mobile phones are increasingly equipped with GPS or other ‘locative technologies’, which, as we have argued above, is an enabling backbone for SpotAFriendNow applications. But there is more to the rising popularity of SpotAFriendNow applications than merely having the technical infrastructure in place. After all, users must want to use these applications, and use them quite extensively, for the phenomenon to actually take flight. In the rest of this article we will discuss two key characteristics of SpotAFriendNow applications, and show in which ways they contribute to the rising popularity of these new applications.

3 Hybrid Space and the Return of the Physical

Over the past decade various social scientists and philosophers studying the impact of modern information and communication technologies on social interactions and behavior patterns in everyday life have pointed towards the fact that *place* and *time* have become less relevant as categories of experience because of the characteristics of these technologies [5,6,7,8,9,10,11]. Information travels across the world almost instantaneously, thereby obliterating the relevance of place/space, time and time differences. Geographer David Harvey has labeled this phenomenon *time-space compression* [12]. Since more and more people spend an increasing part of their lives using information and communication technologies, one could argue that our lives have become progressively more ‘virtualized’. Some would even argue that a larger part of our (social) lives now takes place in virtual worlds than in the physical world that we still inhabit with our bodies, if not with our networked, forever-in-contact minds. The advent of mobile technologies has further increased this ‘migration to cyberspace’. Nowadays, it literally does not matter anymore where you are, because mobile

phones and laptop computers enable you to surf the web, look up information, use entertainment services and be in touch with whomever you choose wherever you are – as long as the others are plugged into the network as well. Barry Wellman has famously argued that with the rise of network and especially of mobile technologies ‘[t]he person has become the portal’ [13]. He writes:

... mobile phones afford a fundamental liberation from place... [...] Their use shifts community ties from linking people-in-places to linking people wherever they are. Because the connection is to the person and not to the place, it shifts the dynamics of connectivity from places [...] to individuals [13].

Now, we do not aim to contest the validity of this claim per se – mobile technology use does, in fact, remove the relevance of one’s physical place as a key parameter in many of the kinds of interactions these technologies afford. Think, for instance, of making a phone call, sending text messages, or using one’s browser to read the latest news. However, mobile technologies increasingly use one’s physical location as a source of adjusting the information and services they provide so that these will be relevant for the specific place in which the individual finds himself. For example, users can retrieve location-specific weather forecasts, public transport timetables and information on restaurants or shops of their liking in their vicinity. SpotAFriendNow applications, as a specific kind of location-based service, also fall in this category, of course. We argue that what such applications do, first and foremost, is *to re-introduce the physical world into the equation through the emphasis they place on individuals’ physical location*, which forms the ‘raw material’ for providing services, information, and, most importantly, for engaging in contact with others. Whereas, as Wellman rightly noted, mobile technologies originally shifted ‘*the dynamics of connectivity from places [...] to individuals*’ we argue that location-based services, and particularly SpotAFriendNow applications, with their emphasis on social interaction with others in one’s physical vicinity, can be viewed as a *response* to this trend by re-introducing places as one of the main ingredients for establishing connectivity. SpotAFriendNow applications, thus, can be understood as an interesting counterweight against the processes of ‘virtualization’ and the ongoing ‘migration to cyberspace’ that many researchers have pointed to in the last decade.

This does not entail that the process of ‘virtualization’ comes to a halt entirely, but rather that it is continued by different means. Our social interactions and connections are still *mediated* by the virtual world, but now come in a new guise with the regained importance of the physical. Moreover, it means that the process of virtualization is now *accompanied* by one of *place-centering*: physical places in the real world are taken as both the starting point and the end point of individuals’ actions in the virtual worlds of their mobile technologies. The physical environment in which the user finds himself is now *augmented* with virtual information, or, to phrase it differently, SpotAFriendNow applications function as ‘*portholes into information spaces*’ that are directly and relevantly related to the user’s physical environment [14]. Thus, the balance between the virtual and the physical is restored, at least to some degree, in and through

SpotAFriendNow applications and other location-based services. What's more, because SpotAFriendNow applications add physical location to the existing infrastructure of mobile technology use, they redefine and alter what it means for users to be *accessible*. Whereas mobile technologies traditionally focused on *availability* – that is, on being reachable and able to reach others from anywhere at any time – adding the parameter of physical location shifts the focus to *presence* instead. With these applications, as we have said before, *where* the user is has regained relevance, or rather, it has become a key element for his interactional accessibility. SpotAFriendNow applications show which members of the same network are in his direct physical environment, and who is open to interaction. Simultaneously, of course, they make the individual's whereabouts visible to others as well, so that they may contact him. Presence in the real world, rather than availability in the virtual world, becomes a central factor through the use of SpotAFriendNow applications. Here, too, we see a counterweight to the 'migration to cyberspace' so often associated with mobile and other information and communication technologies.

It is important to note that we do not claim that SpotAFriendNow applications lead to a return to the 'days before virtualization', when physical place was still the main parameter in catalyzing social interaction. Such a claim would obviously be false. SpotAFriendNow applications are not enablers for a restoration of the nostalgic dynamics of social interaction of old – as the analysis below will show in more detail. The advent of modern technology, and of mobile technologies in particular, has changed both the face and the content of our everyday lives for good and such changes could not be (wholly) undone. But, as De Souza e Silva notes, what location-based mobile technologies do is *combine* physical places and virtual worlds:

Unlike [in] traditional social public places, such as bars, squares, and automobiles, [...] users are simultaneously moving through physical space while connected in real time to other users via digital technology depending on their relative positions in physical space [15].

Thus, SpotAFriendNow, and other location-based services, generate so-called '*hybrid spaces*': '*Hybrid spaces are mobile spaces, created by the constant movement of users who carry portable devices continuously connected to the Internet and to other users*' [15]. In hybrid spaces there is a mixture of the physical space as-is and virtual information that is superimposed on that physical space, thereby enriching the experience of everyday life and creating what has been termed '*augmented reality*' [14,16].

Interestingly, Wellman's famous phrase, 'the person is the portal', is still as true in a world of SpotAFriendNow applications as it was in the high days of virtualization, but it has gained a new meaning. After all, what such applications do is precisely to literally place the individual in the center of his own world, that is, on the map that forms the key element of their interfaces. The map, moreover, reaches outwards from the user's physical location and visualizes the members of the same network available in his vicinity. Being in *this* physical location rather than *that* one, affects whom one may interact with, and while the person is still

the portal in one respect, viz. in the fact that he is taken to be the center of his own (virtual and physical!) universe, what is central *about* him is no longer his position as a node in his virtual networks, but rather his *bodily location in the real world*. He is a portal in an extended meaning of the phrase. The shift from availability to presence as a key parameter in engaging in social interaction, which we described above, will further enhance the user's awareness of his actual physical surroundings. SpotAFriendNow applications thus contribute to a rebalancing of the virtual and the physical in several ways. That this may lead to new forms of sociality is the subject of the next paragraph.

4 Ad Hoc Intimacy and New Forms of Sociality

One of the oft-heard complaints in a world of mobile technology is the claim that the use of such technologies, particularly in public or semi-public spaces, leads to the undermining of interactional norms and values that existed in the social realm before their advent. Mobile technologies, it is said, call forth anti-social behavior in the public realm. They enable us to engage in contact with others who are not present in the same physical location, thereby making the caller unavailable for social interaction with those he is sharing the same space with, and causing inconvenience to those people who are present in that same space. This, it is often argued in more or less disapproving wordings, undermines codes of behavior, rules of etiquette, and senses of social involvement in public spaces [17,18,19,20,21,22], and contributes to already ongoing processes of increasing individualism¹ and the rise of ego-cultures. For instance, Rosen argues that mobile phones are technologies '*...used as a means to refuse to be in the social space; they are the technological cold shoulders*' [23], and Gergen speaks of '*the erosion of face-to-face community, a coherent and centered sense of self, moral bearings, depth of relationship, and the uprooting of meaning from material context*' (Kenneth Gergen, quoted in [23]). Chambers is more nuanced about the effects of mobile phone use and says:

The mobile phone offers the remarkable flexibility of both binding and avoiding face-to-face interaction. On the one hand, this communication device can *cement* face-to-face relationships, not only through regular contact with friends and loved ones, but also through mobile phone sharing, a custom practiced by young people [...]. On the other hand, the mobile phone can be used to *fragment* face-to-face contact by allowing individuals to withdraw from engagement with physically present others by concentrating on the virtual moment. [...] ...the

¹ The rise of individualism, of course, is not the simple result of technological developments alone. Rather, it is a development that stems from a wide variety of processes, ranging from (but not limited to) globalization, the decline of religious observance in many Western countries, the massive displacement of both people and goods across the globe, the resulting loss of senses of (local) rootedness and social collectivity, and various other factors.

disembedding quality of the mobile phone lends itself not only to *social intimacy* but also to *social distancing* [24] (emphasis in the original).

The aim of SpotAFriendNow applications is twofold. On the one hand, using such applications enables users to engage in contact with others in their network who do *not* share the same physical location – chat functionality, posting messages, texting, making calls, and exchanging pictures are all modes of communication enabled by these applications to facilitate *virtual communication*. In this sense they are no different from other mobile phone functionalities, and hence do not contribute to more social involvement with those directly surrounding the user in his physical environment. However, using a map adds an interesting new element to virtual sociality. In research on mobile phone use it has been argued that using a mobile phone allows people to go back to forms of communication that are labeled ‘*pre-modern*’, that is, communication within small, close-knit communities of people that know each other well and are constantly in close touch with one another [25]. Mobile phone users, the argument goes, incessantly ‘tap in’ with a very small group of close connections to (re)affirm social ties and confirm where the others in the network find themselves. All of this, of course, is at the expense of engaging in larger, looser networks, which are labeled ‘*modern*’. Now, whether or not a characterization of mobile phone use as ‘*pre-modern*’ is valid or helpful is not the point we wish to discuss here – what is important here is the fact that research shows that mobile phone users do, in fact, often predominantly engage with only a small, tight-knit group of close friends, and that they engage with this group with a high frequency. What we want to point out is that SpotAFriendNow applications support and may even strengthen users’ ‘*pre-modern*’ desire to know where everyone else in their small community is spending their time, by literally *visualizing* it on a map. If (one of) the mobile phone’s key functionalities is to facilitate small-group, close-knit sociality, then SpotAFriendNow applications may function as one more vehicle for this kind of sociality.

However, that is not the only type of sociality, and perhaps not even the most important one, that SpotAFriendNow applications support. We propose that SpotAFriendNow applications for mobile technologies are an interesting new development, in that they appear to provide a remedy against the alleged instigation of anti-social behavior in public or shared spaces caused by mobile technology use. As we have argued above, SpotAFriendNow applications reintroduce the user’s physical location into the equation and turn this location into the starting point for engaging in social interaction. These applications are designed to enable users to engage in face-to-face interaction with others in the same physical environment, rather than those absent from it, and while they also facilitate the latter, we suspect that it is the former that will attract users to them. This means that SpotAFriendNow applications can be understood as an answer to the ‘absent presence’ caused by mobile phone use (or reading a book, or daydreaming in the presence of others for that matter). The map displaying who else is present in the same location is the central feature for this goal. We label the new form of sociality that arises through the use of SpotAFriendNow applications ‘*ad hoc intimacy*’.

There are two reasons why users would want to turn to SpotAFriendNow applications to meet new people. First, users may be interested in finding new contacts in their direct vicinity based on *shared interests* or *goals* by consulting personal interests specified in the publicly available profile or through tags in the SpotAFriendNow application. Uncovering this unexpected overlap may move the individual to engage in face-to-face interaction with this hitherto unknown person. Similarly, an uncomfortable social occasion, such as a party at which one knows no one, could be turned into a slightly less uncomfortable one with the help of a SpotAFriendNow application on one's mobile phone, because the application enables individuals to 'scan the venue' and see if any like-minded souls (in whatever guise or form, and relating to whatever interest) are available. The second reason why it may be interesting for users to turn to SpotAFriendNow applications is to find *shared friends*, that is, to engage in social interaction with strangers based on the fact that both people share a contact. For instance, sitting on the train I may discover that the person opposite me is my colleague's sister. Had I not accessed my SpotAFriendNow application, I would probably never have known, and hence would not have had any reason to talk to this person. Using the application reveals that we share a social circle and may therefore instigate a face-to-face interaction. What is interesting about SpotAFriendNow applications, then, is the fact that they may bring together strangers in the same (public) space, who would probably not have engaged in social interaction had they not known, through the use of their mobile technologies of the *interests* (goals, characteristics) or the *relations* (connections, contacts) that they shared.

We argue, then, that SpotAFriendNow applications instigate *new forms of sociality* – by coupling social networking capabilities to real world (and real time) settings they facilitate face-to-face interactions with formerly unknown others, leading to what we call 'ad hoc intimacy'. The social networking environments that users have so enthusiastically turned to in the virtual world over the last few years now find a new expression in the physical world, bringing together people who, in all likelihood, would not have found one another if it hadn't been for the SpotAFriendNow application's mediating role. This means that through such applications the social is returned into the equation by allowing users to 'befriend' unknown strangers merely on the basis of their being in the same physical surroundings. Therefore, SpotAFriendNow applications can be viewed as a vehicle to *re-establish* social interaction and lead to new forms of sociality.

5 In Conclusion

As we have seen at the beginning of this article, SpotAFriendNow applications have seriously started blossoming in the last few years. Partially, we have argued, their rising popularity can be explained with reference to the widespread maturation of the technological infrastructure needed for their broad dissemination. SpotAFriendNow applications can also be viewed as an exponent of a rising culture of social networking and self-presentation via the Internet on the one hand, and a regained need for social engagement in the physical world on

the other. These applications provide a new, medium-specific means of engaging in social contact, and therefore contribute to changes in our conception of the public sphere and our engagements with others in that sphere. Critics might argue that SpotAFriendNow applications symbolize one more step in the erosion of the public sphere, since, apparently, nowadays we need a mobile device to help us instigate a social interaction with someone sitting opposite us on the train – we have become such cowards that we can only engage in interaction with others after we've 'screened' them with our mobile phones. While this critique has a point, it misses the central thrust of SpotAFriendNow applications. These applications facilitate users' search for new senses of belonging and social participation. Reengaging in social interactions in the public sphere, and reestablishing means of engagement in that sphere are crucial steps in response to a widely shared sense of discontent with respect to what many perceive to be excessive individualism. The critics are correct in the sense that perhaps we have lost the ability to engage socially in the public sphere, but at least SpotAFriendNow applications enable us to regain some of that capacity. In their contribution to countering the trend of virtualization and providing new forms of sociality the emergence of SpotAFriendNow applications is worthy of our attention not only in social-scientific research but also, more generally, in understanding the societal developments facilitated by and through technology.

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