Friendship contextualised: Social networking in the digital age

Eloise Zoppos
School of Political and Social Inquiry
Monash University

Abstract
The concept and understanding of friendship in contemporary Western society is continually changing which may be in part due to the relatively recent introduction of digital technologies such as social networking sites. These social networking sites—sites on the Internet which allow users to create a personalised profile page—are now considered to be a mass social phenomena (Acquisti and Gross 2006). Consequently, as definitions, understandings, and ‘tools’ of friendship such as social networking sites evolve, adapt and respond to changing situational technologies, the concept of friendship itself changes.

This paper argues that in response to these new technologies, pre-existing friendship models need to be reviewed and potentially be updated in order to reflect these ongoing changes in friendship formation and maintenance. In this paper, I use Robin Dunbar’s circles of acquaintanceship model as the theoretical framework through which to review the concept of friendship in the technological context of the 21st century. Dunbar’s model, which was originally intended for offline (face-to-face) friendships, is extended to the online domain using the social networking site Facebook as a case study. The results of some preliminary data are presented in order to examine the changes to this model when applied to contemporary digital technologies such as social networking sites.

Keywords: Friendship, Dunbar, Facebook, Digital technology
Introduction

The use of the term ‘Friends’ on the social networking site Facebook highlights one of the new friendship considerations that users of social networking sites may need to negotiate, as it places the user in the potentially difficult position of having to differentiate between their online (Facebook) and offline (face-to-face) friendships. While some authors such as boyd and Ellison (2008) make a clear distinction between ‘friends’ and ‘Friends’ – the former being friends as they have been previously understood in a more vernacular sense, and the latter being the list of acquaintances that users may associate themselves with online – this distinction fails to take into account the overlap between offline and online friendships. This highlights one of the problems inherent in defining and researching friendship in the 21st century.

Furthermore, when a site user chooses to befriend another site user on Facebook for example, this public display of connection means that the term ‘friend’ as used on social networking sites has performative qualities (boyd 2006). Authors such as Sundén (2003) for instance, argue that in order to exist online, Internet users must write themselves into being. By choosing to list other users as friends (or, to not list them as friends), social networking site users are essentially writing their friendship network and community into being according to the technological allowance of the site and ‘their perception of who might be looking’ (boyd 2006: 4). In a study of users of the social networking site LiveJournal, it was found that while some site users see friendship as a declarative statement about their relationship with these other users, other users see friendship as a performative art, whereby the process of friending other site users is not indicative of any relationship at all (Fono and Raynes-Goldie 2005: 5-6).

While this articulated list of other site users known as ‘Friends’ may have been intended to reflect offline, or ‘real life, face-to-face’, friendships (Donath and boyd 2004; Thelwall 2008), the simplicity embedded in the binary opposition of friend/not friend on social networking sites such as Facebook (Fono and Raynes-Goldie 2005) changes the meaning of the word friend and how it is understood by
both site users, *and* observers and commentators, again highlighting the differing connotations surrounding the word in the technological context of the 21st century.

This paper argues that currently existing friendship models need to be reviewed in order to understand the ‘role of technology and social navigation’ (boyd 2006: 18) in the formation and maintenance of friendships. In order to demonstrate this, Dunbar’s *circles of acquaintanceship* model will be used as a case study and will be reassessed in the context of digital technologies, and more specifically in the context of Facebook. This paper proposes that the term ‘friend’ – as understood in the context of social networking sites such as Facebook – is largely reflexive, and, argues that social networking sites such as Facebook are powerful tools for (and influences on) societal relations and interpersonal friendships.

**Changing understandings of friendship in the 21st century and Dunbar’s model of friendship**

There are many widely accepted and researched friendship models and theories, including reinforcement theories, social exchange and equity (or cost-benefit) theories, developmental theories and cognitive consistency theories (Fehr 1996; Knapp and Vangelisti 2005). In the English language, the word ‘friend’ ‘can cover a wide range of close informal relationships’ (Pahl 2000: 1). There are various reasons for the ambiguity of the word friendship, including the nature of friendship itself as it ‘does not begin with a definite decision or statement or intention’ (Wright 1978: 199), and the idea that notions of friendship are also culturally dependent (boyd 2006; Carter 2005). The relatively recent proliferation of digital technologies such as social networking sites as Facebook, has only served to heighten the debate and scrutiny surrounding the term friendship and how best to conceptualise it.

The conceptualisation of friendship has been present since the ancient world with philosophers such as Aristotle, Cicero and Plato discussing the concept (Spencer and Pahl 2006) and sociological understandings of friendship have built on these ancient understandings. Within the sociological discipline, the focus is shifted away from the individual and more toward the social patterns that influence friendships, such as age, stage in the life-course and gender (Spencer and Pahl 2006: 40). In this
paper, friendship is understood as involving the following two characteristics: voluntary interactions between both parties involved in the friendship, and personal and equal ties between both parties involved in the friendship (Rawlins 1992; Wright 1978).

Unlike psychological understandings of friendship which focus predominantly on the dyad, sociological understandings of friendship emphasise multiple contributors to the understanding of friendship and friendship processes, including context of the relationship (Adams and Allan 1998) and social structural circumstances (Pahl 2000). The importance of context and social structural circumstance becomes increasingly evident when considering the recent proliferation of social networking sites such as Facebook as new developments in digital technologies may mean that users have new friendship considerations to negotiate.

Robin Dunbar’s circles of acquaintanceship model shares similarities with interdependence, cognitive and developmental theories, but particularly draws on anthropological and sociological disciplines. This model is not only concerned with an individual’s personal friendship network, but also with the structures and interactions within the personal friendship network (Hill and Dunbar 2003).

Dunbar’s circles of acquaintanceship model developed as an extension of his earlier anthropological primate research on the ‘social brain’, or the ‘social brain hypothesis’. Dunbar proposed that all primates, not just humans, have large brains and also, specifically, a large neocortex in relation to their body size (Dunbar et al. 2005: 92) due to social complexities within primate groups (Dunbar 2008). In studies of non-human primates, it was found that the average neocortex size of a primate species correlated with relative social group size, and that the relationship was linear (Dunbar 2008: 8). The group sizes considered in non-human primates included the size of the social group, the size of grooming cliques, the amount of social play, and the use of giving false information to mislead rivals (Dunbar et al. 2005: 93). The expected size of human social groups was then able to be generated by looking at the size of the human neocortex.
Using this approach, Dunbar proposes that humans ‘sit in the middle of a series of expanding circles that progressively include more individuals’ (Dunbar et al. 2005: 97) ranging from 5 to 1500 individuals (see figure 1). While the individuals in each level are inclusive of the individuals contained in the lower levels, these groups are mutually exclusive in that in order to bring someone new into each the circle, someone else must be dropped out of the circle as each one contains a fixed number of individuals (Dunbar et al. 2005). Each circle corresponds to a group of individuals that have their own distinct characteristics (Dunbar et al. 2005) and their own intimacy levels. Dunbar proposes that these limits – the numbers and the levels of intimacy – are ultimately created by cognitive factors which limit the number of individuals with which we can maintain an intimate relationship (Dunbar et al. 2005). For the purposes of this paper and its limited word count, only the 4 innermost circles (out of 6) will be discussed.

The innermost circle of an individual’s personal friendship network is known as the *support clique*, and contains approximately 5 individuals (Dunbar et al. 2005). The support clique circle consists of individuals from whom emotional support, advice
and help could be sought in times of severe distress, both emotional and financial (Dunbar et al. 2005; Roberts et al. 2009).

The next circle is known as the sympathy group which contains approximately 12-15 individuals, is essentially the core of one’s social network, and is categorised by monthly contact, general support and advice, and social integration (Dunbar 2004; Roberts et al. 2009). The support clique and the sympathy group are the groups most likely to contain an overlap of a family member who can also be considered by the individual to be a friend (Dunbar 2004).

Following the sympathy group is the circle known as the close network, which contains about 35 individuals. This circle is categorised by less than monthly contact, a low level of support, including basic emotional support, and is known as the general network of friends (Dunbar 2004).

The next circle is known as the personal social network, or the ‘cognitive group’, and contains approximately 150 individuals (Dunbar 2004). It is known as the ‘cognitive group’ as Dunbar proposes that this number is the maximum number of people that the brain is equipped to know at a certain level of emotional intensity at any given time (Dunbar 2008). This group is categorised by an explicit and personal relationship that maintains a level of personal trust and has a history of past interactions (Dunbar et al. 2005).

Dunbar’s model of friendship has various implications and applications for social life and working life, as evidence suggests that his number of 150 may also have an impact on contemporary Western societies. In terms of one’s social life, the model suggests that in order to include a new friend into one of the circles, another friend may have to be sacrificed (Dunbar 2008: 13). Furthermore, it also suggests that failure to actively maintain one’s friendships may lead them to slide progressively down each of the circles, which may eventually result in them falling outside the key number of 150 (Dunbar 2008: 13). These implications further support the need for additional study into his circles of acquaintanceship model given the introduction of digital technologies and social networking sites in the context of
contemporary Western society. Users of Facebook for instance, may potentially be able extend their pre-existing offline (face-to-face) friendships and social groups, and therefore may be able to increase the number of individuals located in each of the circles.

**Method**

*Theoretical and conceptual framework*

As discussed earlier in the paper, individuals may be faced with new friendship considerations to negotiate pertaining to the development of digital technologies and social networking sites such as Facebook, including the connotations of the words ‘friend’ and ‘friendship’, the continuing struggle for site users to negotiate online and offline friendships, and the idea of online friendship as a social performance due to the dichotomy between the public versus private nature of social networking sites. In this section of the paper, the first 4 circles of Dunbar’s model of friendship are assessed in the context of Facebook to examine:

- Whether use of Facebook changes the reported number of individuals that are located in each of the 4 circles
- The type of contact that is reported to occur with the individuals located in each of the 4 circles, ranging from only face-to-face, to only Facebook.

*Participants and recruitment*

Participants in this preliminary case study were 23 adults who were invited to participate in this pilot study via the ‘snowball’ method. Initial invitations to participate were sent via email to colleagues of the researcher at Monash University, Australia. These colleagues were asked to forward the invitation among their own networks. The sample comprises 20 females and 3 males aged 19 to 54 with a mean age of 35.71 (SD=9.88).

*Procedure*

Participants completed an anonymous online survey exploring friendship and Facebook use. Before answering the questions, participants were given the following descriptions of Dunbar’s 4 circles:
**Friendship Group 1:** Individuals who are contacted regularly (more than monthly), and from whom emotional support, advice and help could be sought in times of severe distress, including both emotional and financial distress.

**Friendship Group 2:** Individuals who are contacted monthly, and from whom general support and advice could be sought. These individuals also provide a source of social integration (i.e. meeting friends of friends).

**Friendship Group 3:** Individuals who are contacted less than monthly, provide basic emotional support, whom you would trust with personal information, and are the general network of close friends.

**Friendship Group 4:** Individuals who are known by name, and with whom you share a history of past interactions. The maximum number of individuals that are still contacted semi-regularly (at least yearly), and still have a relatively personal relationship with (i.e. some level of trust and self-disclosure).

Participants were then asked to answer the following questions in regards to each of the 4 circles:

1. How many friends would you place in this category?
2. Ranging from a purely face-to-face friendship, to a friendship solely conducted on Facebook, what type of contact would you generally have with these individuals?
   a. Only face-to-face
   b. Mostly face-to-face: some Facebook
   c. Equally face-to-face and Facebook
   d. Mostly Facebook: some face-to-face
   e. Only Facebook

**Results**

The results for question 1 are presented in Table 1. The preliminary data suggests that Dunbar’s circles of acquaintanceship model changes considerably when applied to Facebook users but found that, surprisingly, while the number of friends placed in the 2 inner circles by participants in the current study was higher than in Dunbar’s original model, the number of friends placed in the outer 2 circles by participants in the current study was actually lower than in Dunbar’s original model.
Table 1: The number of friends in each of the 4 circles as located by Dunbar in his original (face-to-face friendship) model, and as placed by participants in the current study (both face-to-face and Facebook friendships)

<table>
<thead>
<tr>
<th>Circle No.</th>
<th>Original model</th>
<th>Current Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>35</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>150</td>
<td>41</td>
</tr>
</tbody>
</table>

The results for question 2 are presented in Table 2. Participants were asked to indicate how their friendships with the individuals in each circle were usually conducted on a face-to-face to Facebook continuum. The preliminary data reveals the integration of Facebook into close friendships and indeed in friendships in general, as the presence of Facebook as a type of contact was reflected across all of the 4 friendship circles.

Table 2: Participant response count to type of contact with individuals in each circle

<table>
<thead>
<tr>
<th>Circle</th>
<th>Only face-to-face</th>
<th>Mostly face-to-face: some Facebook</th>
<th>Equally face-to-face and Facebook</th>
<th>Mostly Facebook: some face-to-face</th>
<th>Only Facebook</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>13</td>
<td>4</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>7</td>
<td>8</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>7</td>
<td>4</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>10</td>
<td>5</td>
</tr>
</tbody>
</table>

Discussion

The purpose of this pilot study was twofold. Firstly, to determine the number of people that participants include in each of Dunbar's circles of acquaintance. That is, do Dunbar's 'numbers', a model developed with respect to face-to-face relationships, hold in a sample of Facebook users? Secondly, how are relationships in each of the circles conducted? Online, offline or a combination of both?

The results presented in Table 1 suggest that Facebook may be used to facilitate friendships with close friends rather than facilitating friendships with acquaintances,
as the number of individuals placed by participants in the 2 inner circles were very close to those numbers located by Dunbar himself in the original model. This suggests that while Facebook may be used to facilitate pre-existing close offline (face-to-face) friendships, increased use of Facebook may actually be weakening our wider circles of friendship. For instance the number of individuals placed by participants in circle 3 – known as the general network of friends – in the current study was lower than the number of individuals located in circle 3 in the original model. This suggests that increased use and reliance on Facebook for social interactions may lessen the number of people individuals are friends with in a general sense and may even weaken individuals’ general social ties.

As presented in Table 2, while participants indicated that the type of contact with individuals included in the 2 inner circles ranged from ‘only face-to-face’, to ‘mostly Facebook: some face-to-face’, the type of contact with individuals included in the 2 outer circles ranged from ‘only face-to-face’, to ‘only Facebook’. Although participants only chose the option ‘only Facebook’ in relation to the 2 outer circles (circles 3 and 4), 13 participants reported using Facebook (in varying intensities) to contact their closest friends (that is, their friends that are generally located in circle 1). The fact that Facebook, in some form, was used to contact individuals across all of the circles, including individuals in the 2 innermost circles, highlights the potentially significant integration of Facebook into various types of social relationships, from close friendships to acquaintanceships.

When considered together, the results from Tables 1 and 2 suggest that although Facebook may be used to facilitate close friendships, the larger the circle of friends, the more likely an individual is to use Facebook to contact these individuals. This means that individuals who use, and possibly depend on, Facebook to maintain social interactions may actually have a smaller circle of friends than those who do not use Facebook to keep in contact with friends (despite the option on social networking sites to add ‘Friends’ to the user’s articulated list of other site users). This may be because by enabling easier access to pre-existing close friends, Facebook use may in turn decrease the need or desire for individuals to contact other friends or acquaintances.
Despite this however, the key finding from this early data is that even with the use of Facebook our number of close friends is not declining. Also, we may not be discarding close friends through our use of Facebook, using it instead to further contact individuals whom we already feel a close connection to.

**Conclusion**

In this paper, the changing nature of friendship and why friendship research must continually be reassessed and revised has been highlighted: ‘the old, rather simplified stereotypes [of friendship] have collapsed in the face of the demographic, material and social changes that grew in force through the twentieth century’ (Pahl 2000: 98). These changes continue to influence friendship today. This study provides the groundwork for a broader study of friendship in the age of Facebook. Does 'friend' mean the same thing it meant in the pre-Facebook age and do Dunbar's circles of acquaintance translate from offline relationships to online relationships? By applying a friendship model originally intended for face-to-face friendships to a sample of Facebook users, this paper has demonstrated that digital technologies such as Facebook are not necessarily a negative influence on friendship, but instead may be used to facilitate pre-existing offline (face-to-face) friendships, and therefore, in lieu of the widespread use of digital technologies, changes must be implemented in terms of researching friendship in order to accurately reflect its changing properties.

**Acknowledgements**

I would like to thank Dr. Francesca Collins and Ms. Nicola Pitt for their comments regarding the development of this paper.
Reference List


