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Why most Facebook users get more than they give

The effect of Facebook 'power users' on everybody else

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Summary of findings

Half the adults and three-quarters of the teenagers in America use social networking sites (SNS) and Facebook by far is the most popular of these sites.

The Pew Research Center's Internet & American Life Project fielded a nationally representative phone survey about the social and civic lives of SNS users and reported the findings in June 2011 in a report entitled "Social networking sites and our lives."[1] During the phone survey, 269 of 877 original respondents who were Facebook users gave us permission to access data on their use of Facebook so that it could be matched with their survey responses. We partnered with Facebook to match individual responses from the survey with profile information and computer logs of how those same people used Facebook services over a one-month period in November 2010 that overlapped when the survey was in the field.

The results of that special analysis of 269 Facebook users identified in and recruited from a random, representative telephone survey are reported here.

Power Users

The average Facebook user gets more from their friends on Facebook than they give to their friends. Why? Because of a segment of "power users," who specialize in different Facebook activities and contribute much more than the typical user does.

The typical Facebook user in our sample was moderately active over our month of observation, in their tendency to send friend requests, add content, and "like" the content of their friends. However, a proportion of Facebook participants – ranging between 20% and 30% of users depending on the type of activity – were power users who performed these same activities at a much higher rate; daily or more than weekly. As a result of these power users, the average Facebook user receives friend requests, receives personal messages, is tagged in photos, and receives feedback in terms of "likes" at a higher frequency than they contribute. What's more, power users tend to specialize. Some 43% of those in our sample were power users in at least one Facebook activity: sending friend requests, pressing the like button, sending private messages, or tagging friends in photos. Only 5% of Facebook users were power users on all of these activities, 9% on three, and 11% on two. Because of these power users, and their tendency to specialize on specific Facebook activities, there is a consistent pattern in our

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[1] "Social networking sites and our lives" available at http://www.pewinternet.org/Reports/2011/Technology-and-social-networks.aspx.

sample where Facebook users across activities tend to receive more from friends than they give to others.

- On average, Facebook users in our sample get more friend requests than they make: 63% received at least one friend request during the period we studied, but only 40% made a friend request.
- It is more common to be "liked" than to like others. The postings, uploads, and updates of Facebook users are liked – through the use of the "like" button – more often than these users like the contributions of others. Users in the sample pressed the like button next to friends' content an average of 14 times per month and received feedback from friends in the form of a "like" 20 times per month.
- On average, users receive more messages than they send. In the month of our analysis, users received an average of nearly 12 private messages, and sent nine.
- People comment more often than they update their status. Users in our sample made an average of nine status updates or wall posts per month and contributed 21 comments.
- People are tagged more in photos than they tag others. Some 35% of those in our sample were tagged in a photo, compared with just 12% who tagged a friend in a photo.

Women make more status updates than men

Women are more intense contributors of content on Facebook than are men. In our sample, the average female user made 21 updates to their Facebook status in the month of observation, while the average male made six.

Facebook users average seven new friends a month

While most users did not initiate a friend request during the month we looked at their activities, and most received only one, an active 19% of users initiated friendship requests at least once per week. Because of the prolific friending activity of this top 19%, the average (mean) number of friend requests accepted was three and the average number accepted from others was four. Overall, some 80% of friend requests that were initiated were reciprocated.

Few unsubscribe from friends' feeds

Facebook users have the ability to unsubscribe from seeing the content contributed by some friends on their newsfeed. Less than 5% of users in our sample hid another user's content from their feed in the month of our observation.

There is little evidence of Facebook fatigue

We found no evidence among our sample that length of time using Facebook is associated with a decline in Facebook activity. On the contrary, the more time that has passed since a user started using Facebook, the more frequently he/she makes status updates, uses the "like" button, comments on friends' content, and tags friends in photos. Similarly, the more Facebook friends someone has, the more frequently they contribute all forms of Facebook content and the more friend requests they tend to send and accept.

Friends of Friends

Your friends on Facebook have more friends than you do

In this sample of Facebook users, the average person has 245 friends. However, the average friend of a person in this sample has 359 Facebook friends. The finding, that people's friends have more friends than they do, was nearly universal (as it is for friendship networks off of Facebook). Only those in our sample who had among the 10% largest friends lists (over 780 friends) had friends who on average had smaller networks than their own.

Facebook friends are sparsely interconnected

It is commonly the case in people's offline social networks that a friend of a friend is your friend, too. But on Facebook this is the exception, not the rule. A fully connected list of friends on Facebook would have a density of 1 (everyone knows everyone else). The average Facebook user in our sample had a friends list that is sparsely connected. As an example, if you were the average Facebook user from our sample with 245 friends, there are 29,890 possible friendship ties among those in your network. For the average user with 245 friends, 12% of the maximum 29,890 friendship linkages exist between friends.

Facebook users can reach an average of more than 150,000 Facebook users through their Facebook friends; the median user can reach about 31,000 others

At two degrees of separation (friends-of-friends), Facebook users in our sample can on average reach 156,569 other Facebook users. However, the relatively small number of users with very large friends lists, who also tended to have lists that are less interconnected, overstates the reach of the typical Facebook user. In our sample, the maximum reach was 7,821,772 other Facebook users. The median user (the middle user from our sample) can reach 31,170 people through their friends-of-friends.

Social Well-Being

Making friends on Facebook is associated with higher levels of social support. Those who made the most frequent status updates also received more emotional support.

In our phone survey, we asked SNS users a variety of questions about their close friends on and offline, the kind of support they received from their friends, the level of diversity of their social circles, and their civic and political activity. We matched the answers to those survey questions to data in these users' Facebook logs and then analyzed the relationship between certain activities on Facebook and the social lives of these users.

One key finding is that Facebook users who received more friend requests and those that accepted more of those friend requests tended to report that they received more social support/assistance from friends (on and offline). There was also a weak, but positive relationship between receiving and approving friendship requests, as well as posting status updates, and higher levels of emotional support, such as help with a personal problem.

Tagging Facebook friends in photos is associated with knowing more people from diverse backgrounds and having more close relationships – off of Facebook

There is a statistically positive correlation between frequency of tagging Facebook friends in photos, as well as being added to a Facebook group, and knowing people with more diverse backgrounds off of Facebook. These are relatively weak relationships, but they still are statistically significant. Similarly, from our sample, those who tagged Facebook friends in photos more frequently also reported that they had a larger number of people with whom they could discuss important matters (on or off of Facebook).

A wide range of activities on Facebook are associated with attending political meetings

Those users from our sample who are intensive Facebook users are more likely to report that they attended a political meeting or rally. The Facebook activities associated with attending a meeting/rally included: having more Facebook friends, having more friends-of-friends, being added to a Facebook group or adding someone else to a group, sending more personal messages, receiving more wall posts, tagging more friends in photos, and being tagged themselves in photos.

Those who participate in Facebook groups are more likely to try to persuade someone to vote for a specific candidate

Among these users, participation in Facebook groups, either by being added to a group or adding someone else, is associated with trying to influence someone to vote in a specific way.

Survey answers and Facebook logs line up pretty well

Facebook users underestimate the number of their Facebook friends

On average, users in our sample reported in our phone survey that they have 18 fewer friends than is actually the case in their accounts. They reported an average of 227 friends. They actually have an average of 245 friends.

Self-reported survey responses are close to logs of actual Facebook activity

Comparing self-reported survey data to logs of people's actual Facebook activity, we found that survey data is close to actual use. There is a strong positive relationship between actual and reported use of the "like" button and for commenting on other users' content. The relationship is slightly more moderate, but still positively correlated for activities that are performed on Facebook less frequently, such as private messaging and status updates or wall posts. Self-report data is generally consistent with actual use, especially for the most popular Facebook activities.

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Part 1: Introduction

In June 2011 we released a report on *Social Networking Sites and Our Lives* [1]. In that report we addressed common concerns that people have about the use of the internet and about social networking sites in particular, as they relate to the quality of people's relationships and their level of community involvement. Our report was based on a nationally representative phone survey of 2,255 American adults who were surveyed between October 20 and November 28, 2010. That sample included 468 non-internet users, and 975 users of social network sites (SNS) such as Facebook, MySpace, LinkedIn, and Twitter.

From that survey, we reported on the rapid rise of SNS since 2008 and the intensive, everyday use of SNS. In our analysis one site stood out for its popularity and potential impact. Compared with non-internet users, other internet users, and even users of other SNS, frequent users of Facebook were more likely to exhibit higher levels of social trust, greater political engagement, more close relationships, and a higher level and breadth of social support. We were surprised and intrigued by these findings.

In this report we build on that earlier work with the addition of a new and unique methodological approach. We partnered with Facebook to provide more nuance to our analysis. With the permission of a sub-sample of participants form our national survey, we worked with Facebook to match individual responses from the survey with computer logs of how those same people used Facebook services over a one-month (28-day) period that overlapped with the time our survey was in the field (November 1-28, 2010). A total of 269 people in our survey from the 977 who were Facebook users granted permission for Facebook to share their data so that it could be matched with their survey responses.

This new approach allows us to explore our earlier findings about people's engagement and relationships in more detail and with a greater range of variables about Facebook use than we could accomplish with a survey alone.

Facebook users who granted us access to their Facebook data look very similar to the overall adult population of American Facebook users

When we compare key demographic characteristics of those who agreed to share their Facebook data with the Facebook users in our original national phone survey, we found few differences. The average Facebook user in our phone survey was 44 years old, as was the average person who agreed to let us explore their online data. The average Facebook user in our phone sample has at least some college education, as does the average person who shared their Facebook data – about 15 years of formal education.

The only major demographic where we found a statistical difference between the survey sample and the sample who allowed us to explore their data related to gender. In this sample, 48% of participants are male. That is higher than the male representation on Facebook in our phone survey, which was 40%.

Part 2: Facebook Activity

Those who allowed us to access their Facebook logs gave us a chance to explore a more extensive set of Facebook activities than we could capture through a phone survey. We were able to explore the frequency of these activities, how activities are related to the size of people's Facebook friends list, how long they have used Facebook, how they responded to similar questions about Facebook activities in our survey, and variation in use by gender.

Frequency of Facebook Activities (N=269)

	Mean for month	Median for month	% Daily	% Weekly	% Less than weekly	% Not in the month
Friending						
Accepted a friend request	3.59	1	2	22	33	44
Had a friend request accepted	3.16	0	2	15	22	61
Sent a friend request	3.96	0	3	16	21	60
Received a friend request	4.20	1	2	25	36	37
Liking						
Liked a friend's content	14.48	0	13	20	11	57
Had content liked	20.08	0	14	23	12	51
Private Messages						
Sent a private message	9.47	0	7	20	19	54
Received a private message	11.68	2	8	31	20	41
Commenting						
Commented on a friend's content	21.10	1	22	19	15	45
Received comment	20.10	1	19	21	11	49
Posting						
Posted a status update or wall post	8.51	0	10	23	16	50
Received a wall post	3.58	0	3	16	27	54
Photo Tagging						
Tagged a friend in a photo	1.91	0	2	8	3	88
Was tagged in a photo	1.92	0	1	13	22	65
Groups						
Added someone to a group	.17	0	0	2	3	96
Was added to a group	.24	0	0	2	10	89
Poking						
Poked a friend	.87	0	1	3	3	94
Was poked	.87	0	1	3	4	93
Hiding						
Hid a friend from newsfeed	.09	0	0	0	4	95

A consistent trend in our analysis is the lack of symmetry in Facebook activities. On average, Facebook users in our sample received more than they gave in terms of friendships and feedback on the content that is shared in Facebook. However, these averages need to be interpreted in context. This imbalance is driven by the activity of a subset of Facebook users who tend to be more engaged with the Facebook site than the typical user.

Our findings suggest that while most Facebook users in our sample were moderately active over a one-month time period, there is a subset of Facebook users who are disproportionately more active. They skew the average. These power users, who, depending on the type of content, account for 20% to 30% of Facebook users in our sample, "like" other users' content, tag friends in pictures, and send messages at a much higher rate than the typical Facebook user. Power users tend to specialize. Some 43% of those in our sample were power users in at least one Facebook activity: sending friend requests, pressing the like button, sending private messages, or tagging friends in photos. Only 5% of Facebook users were power users on all of these activities, 9% on three, and 11% on two. It is this intensive set of users on each activity that explains why, when we look at the average amount of content sent and received in a month, it appears that Facebook user tends to receive more than they give.

Making nearly seven new friends a month

In general, people in our sample were more likely to receive a friend request than to initiate one of their own. About 40% of our sample of Facebook users made a friend request in the month of our observation, but 63% of users received a friend request. While most users did not initiate a friend request, and most received only one, 19% of users – what we are calling power users – initiated requests at least once per week. Not all friend requests were reciprocated; 80% of friend requests that were initiated were accepted.

As a result of the intensive activity of the 19% of Facebook users who were very prolific at initiating friend requests, Facebook users on average (mean) had three friend requests that they initiated accepted, and they accepted an additional four friend requests from other users. On average, our sample of Facebook users made seven new friends per month.

In general, men were more likely to send friend requests, and women were more likely to receive them. However, we did not find a statistical difference in the mean number of friend requests sent, received, or accepted between men and women. We suspect, if we had a larger sample and could examine users by both age and gender, we would find that among younger users there is a tendency, consistent with stereotypical norms, for men to initiate friend requests with women at a higher rate than women initiate contact with men.

Frequency of Facebook Activities by Sex (Male N=130; Female N=139)

	Male	Female		Male	Female		Male	Female
	\ Mean			\ Median			\ SD	
Friending								
Accepted a friend request	2.92	4.23		1.00	1.00		5.58	15.93
Had a friend request accepted	4.02	2.36		0.00	0.00		12.97	6.57
Sent a friend request	4.92	3.06		0.00	0.00		16.55	9.64
Received a friend request	3.56	4.79		1.00	2.00		6.33	16.60
Liking								
Liked a friend's content	10.75	17.96		0.00	1.00		35.97	40.14
Had content liked	10.67	28.88		0.00	1.00		31.23	126.82
Private Messages								
Sent a private message	8.31	10.56		0.00	1.00		31.34	31.66
Received a private message	9.12	14.09		1.00	2.00		29.80	50.56
Commenting								
Commented on a friend's content	15.68	26.16		0.00	2.00		36.31	53.32
Received comment	15.22	24.67		0.00	2.00		38.05	65.54
Posting								
Posted a status update or wall post	5.68	11.16	*	0.00	2.00		13.57	24.77
Received a wall post	2.82	4.29		0.00	1.00		7.89	11.95
Photo Tagging								
Tagged a friend in a photo	1.31	2.48		0.00	0.00		5.39	8.35
Was tagged in a photo	1.62	2.21		0.00	0.00		4.56	5.29
Groups								
Added someone to a group	0.28	0.08		0.00	0.00		2.02	0.50
Was added to a group	0.25	0.24		0.00	0.00		0.81	0.78
Poking								
Poked a friend	0.69	1.04		0.00	0.00		5.16	8.32
Was poked	0.71	1.03		0.00	0.00		5.42	8.37
Hiding								
Hid a friend from newsfeed	0.02	0.14		0.00	0.00		0.20	0.89

People are liked more than they like

Use of the "like" button is among the most popular activities on Facebook. A third of our sample (33%) used the like button at least once per week during this month, and 37% had

content they contributed liked by a friend at least once per week. However, the majority of Facebook users neither liked content, nor was their content liked by others, in our month of observation.

Use of the like button is unequally distributed. Because of the intensive activity of the 30% of power users, the people in our sample pressed the like button next to friends' content on an average of 14 occasions during the month and received feedback from friends in the form of a "like" 20 times during the month.

This discrepancy is a function of two things. First, an intensive subset of Facebook users are heavily engaged with the use of the "like" button. Nearly 5% of our sample pressed the like button next to content on friends' walls on over 100 occasions in a month. Second, the average number of received likes is skewed as a result of a small number of people who are extremely well "liked" – their content was especially popular over the month. That is, their content receives a very high number of likes from friends. About 3% of our sample had content liked by their friends on over 100 occasions in the month (one user received well over 1,000).

It is not clear from our sample if the same Facebook users remain popular over time (what might be termed "preferential attachment" [2]), or if the popularity of Facebook users and their content rises and falls over time depending on the "stickiness" [3]of their content. We suspect that it is some of both.

People receive more messages then they send

Facebook allows users to send private messages to each other. During this time period among these Facebook users, there is an absence of reciprocity in how people use personal messages. In general, people receive more messages than they send. Over half of Facebook users in our sample (54%) did not send a private message in the month, but 59% did receive a message. A subset of 27% of Facebook power users sent a personal message at least once per week (39% of Facebook users received at least one message per week). As a result of these power users, in the month of our analysis, the Facebook user in our sample on average received nearly 12 private messages, and sent just over nine.

More feedback than updates

Status updates are broadcasts posted to one's own Facebook profile that appear in friends' newsfeeds. In our sample, status updates are a far less frequently used activity than either commenting on others' content or using the like button. Facebook users in our sample on average contributed about four comments for every status update that they made. On average,

users make nine status updates per month and contribute 21 comments. Some 33% of Facebook users here updated their status at least once per week. Still, half of our sample made no status updates in the month of our analysis.

Women make significantly more status updates than men; the average female in our sample made 11 status updates, while the average male made six.

More likely to be tagged than to tag a friend in a photo

Tagging friends in photos uploaded into Facebook is not a frequent activity of most Facebook users in our sample over the time that we were able to observe. Only 12% of our sample tagged a friend in a photo in the month of our analysis. However, while few do the tagging, 35% of users were themselves identified and tagged in a photo by a Facebook friend.

To join or be joined

As with photo tagging, in our sample over the time period of one month, the act of joining a Facebook group was practiced by a small minority of users. Only 4% of our sample added a friend to a group in the month, while some 11% were added to a group by another Facebook user. However, Facebook groups may be an example of an activity that, while having a relatively low incidence over a short time period, may have broader impacts. Study of voluntary groups has shown that while most people belong to few groups, membership can be strongly predictive of many political, civic, and civil activities [4, 5].

Give a comment, receive a comment

There were some Facebook activities where people were as likely to give as they were to receive. Unlike use of the "like" button, there is a trend toward balance in the tendency to receive comments and post comments on friends' content. More than half our sample (55%) commented on a friend's content at least once in the month, and 51% received comments from a friend. A large segment of users, a little over 20%, contributed or received a comment every day. The average of 21 comments given on friends' content was nearly identical to the average of 20 that were received. Again, there are some extreme users as well, about 5% of our sample contributed and received over 100 comments in the month of our observation.

Poke them back

Among the least commonly practiced Facebook activities is the use of the "Poke" button. Only 6% of users poked a friend, while 7% were poked in the month. While uncommon, some

Facebook users are frequent pokers. Five participants from our sample poked nearly once a day, being poked themselves a nearly equal number of times.

When "friends" are not friends after all

Facebook users have the ability to unsubscribe from seeing content contributed by specific friends on their newsfeed. Data on our sample of Facebook users suggest that this featured is used by a small minority of Facebook users. In our sample, only 12 respondents, or less than 5% of Facebook users, hid another user from their feed in the month of our observations. Nine users hid a single friend, and three blocked more than one friend.

Facebook users underestimate their number of Facebook friends

Much of our knowledge about the impact of social networking sites is based on survey data [6]. We assess the accuracy of this data by comparing people's reported Facebook behavior to their actual use of the Facebook service as revealed in the log data. As part of our phone survey, we asked participants to report on the size of their Facebook friends list. Compared with what people reported in the survey, the actual number of Facebook friends that people have tends to be slightly larger.

When we compare the size of people's Facebook networks as they reported on the survey with their actual friend count, we found that the average respondent underestimated by about 18 friends. Those in our sample reported on the phone survey they had an average of 227 friends, but Facebook logs show that this sample of people actually has an average of 245 friends. The correlation between actual Facebook friends and the number reported on the survey was very high.[2] This suggests that individual survey responses are generally consistent with the size of actual Facebook friends lists.

However, while highly correlated with actual size, we note that roughly one-third (32%) of respondents were still more than 50% wrong in their self-reports – that is, they over or underestimated their number of friends by more than 50% of the actual size. We did not find any tendency for people with larger Facebook friends lists, or those who had been on Facebook longer, to be any more or less accurate in their reports than those with smaller networks or those who started using Facebook more recently.

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[2] Pearson Correlation 0.926; sig 2-tailed < .0001

Friendship numbers drive Facebook activity

When we looked at the relationship between the size of people's friends lists and how often they participate in various Facebook activities, the relationship was universally in one direction. The more Facebook friends people have, the more they perform every activity on Facebook.

Those who have more Facebook friends tend to send and accept more friend requests, receive more friend requests, and have more friend requests accepted. They "like" their friends' content more frequently, and are "liked" more in return. They send and receive more private messages, send and receive more comments, post and receive wall posts more frequently, tag and are tagged in more photos, and are added to more groups (see Appendix A: Table 1).

The time passed since people first started using Facebook is associated with more frequent posting, commenting, and photo tagging

There is no evidence in this sample that veteran users of Facebook suffer from Facebook fatigue. There is a weak to modest, positive relationship between length of time using the site and frequency of using the "like" button, commenting on friends' content, posting status updates or wall posts, and tagging friends in photos. Similarly, the longer members of our sample had been using Facebook, the more likely they were to have their content liked by a friend, receive a comment, receive a wall post, or have themselves tagged in a photo.

Somewhat surprisingly, there is no relationship between how long people have been using Facebook and how frequently they get or send friendship requests. There is however, a weak relationship between length of time using Facebook and likelihood of hiding a friend's content on the Facebook newsfeed.

For a detailed look at these correlations, see Table 1 in Appendix A to the report.

Most users have a good sense of how they use the Facebook service

Survey participants were asked to self-report the frequency that they participate in a number of common Facebook activities. We asked survey participants how often they clicked the "like" button, how often they sent private messages, how often they posted a status update or a comment on someone else's wall, and how often they commented on another user's content. The response categories that we provided included "several times a day," "about once a day," "3-5 days a week," "1-2 days a week," "every few weeks," "less often," and "never."

Using data that participants agreed to share from their Facebook accounts, we paired data on actual use of Facebook with the response categories we provided in the survey. This allowed us to explore the accuracy of self-reported survey data, and to better understand how aware Facebook users are of how often they use the Facebook service.

In general, most self-reports of Facebook activity were accurate, or close to actual usage. For each activity, one quarter to one third of participants correctly identified the category of use that matched their actual use. An additional one quarter to one third of users were off by only one category. There was no statistical difference between the proportion of users who self-reported that they did an activity "several times a day" or "about once a day," and actual use, across all activities we measured on the survey. With the exception of commenting, the same was true for those who reported doing activities "3-5 days a week" (see Appendix A: Table 2).

There was a consistent tendency among the least-frequent users of Facebook activities to overstate their actual use of the service (consistent with other studies of survey response that have found a tendency for respondents to overstate behavior [7]). This category of user is either less aware of their use, systematically misinterpreted survey questions, or tended to bias their response toward more frequent activity (possibly in the belief that it was a more socially acceptable response). For example, 22% of survey respondents who reported that they "like" the content contributed by their Facebook friends in the month they were interviewed never did so. Infrequent Facebook users may have interpreted a survey question about whether they use the "like button" to mean whether they actually approved of or "liked" (sic) their friends' content in the general sense of the term – not reporting on their actual use of the "like button."

There is a strong, positive relationship between actual use and reported use of the "like" button[3] and for commenting on other users' content[4]. The relationship was more moderate, but still positively correlated for less frequent activities, such as private messaging[5] and status updates or wall posts[6]. This suggests that self-report data is generally consistent with actual use, especially for the most popular Facebook activities – such as use of the "like" button.

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[3] Spearman's Rho 0.599; sig 2-tailed < .0001
[4] Spearman's Rho 0.525; sig 2-tailed < .0001
[5] Spearman's Rho 0.359; sig 2-tailed < .0001
[6] Spearman's Rho 0.416; sig 2-tailed < .0001

Part 3: The Structure of Friendship

Some information on the use of social networking sites is extremely difficult or impossible to collect as part of a phone survey. For example, information on the structure of people's online friendship networks, such as the number of friends of friends, or how densely connected are a person's friends (i.e., if a person's friends have all friended each other). Such measures, while difficult to collect in a survey, are important in understanding how use of Facebook is related to different social outcomes. For example, measures such as social cohesion (density) in people's personal network of relations is a strong predictor of things like trust and social support – the ability of people to get support when they are in need or seeking help making decisions [8].

In this section we look at measures of Facebook use that we could only obtain from logs of people's actual use of Facebook. Specifically, we examine how these measures relate to people's everyday experiences outside of Facebook in terms of the amount of social support they receive, trust, and political participation.

A friend of a friend is ... probably not your friend on Facebook

As the common saying goes, a friend of a friend is a friend. But on Facebook this is the exception rather than the rule. When we explored the density of people's friendship networks, we found that people's friends lists are only modestly interconnected. A fully connected list of friends would have a density of 1 (everyone knows everyone else). The average Facebook user's friends list has a density of only .12 (SD=.07). There was a maximum density of .42 (see Appendix A: Graph 1).

As an example of what this means, if you have 10 friends, the number of possible friendship ties among everyone in your network is 45 (possible ties=n*(n-1)/2). If you were an average Facebook user from our sample, with 245 friends, there are 29,890 possible friendship ties among those in your network. Our density measure of .12 means that for the average user with 245 friends, 12% of the maximum 29,890 friendship linkages exist between friends.

A network density of .12 is low in comparison to studies of people's overall personal networks. A 1992 study found a density of .36 between people's offline social ties [9]. We suspect that Facebook networks are of lower density because of their ability to allow ties that might otherwise have gone dormant to remain persistent over time.

There are a number of factors that predict how densely connected a friends list is likely to be.

The longer people have been using Facebook[7], and the more Facebook friends they have[8], the less dense their friendship networks tend to be. This is consistent with research on other social networks which have found an inverse relationship between network size and density [10].

We expect that new Facebook users typically start with a core group of close, interconnected friends, but over time their friends list becomes larger and less intertwined, particularly as they discover (and are discovered by) more distant friends from different parts and different times in their lives. For instance, for most people there is not much chance that Facebook friends from their high school graduating class will know their current work colleagues.

Your friends have more friends than you

In our sample, the average Facebook user has 245 friends. However, when we look at their friends, the average friend has a mean of 359 Facebook friends.

The vast majority of Facebook users in our sample (84%) have smaller sized networks of friends than their average network size of their Facebook friends.

The finding that your friends have more friends than you is a near universal feature of Facebook use. It is especially likely to be true for people who have the smallest friends lists. In our sample it was only those participants who had among the 10% largest friends lists (more than 780 friends) that had more friends than their average friend.

The difference in size between a person's Facebook friends list and that of their average friend is not trivial. The average friend of a Facebook user in our sample has 4.3 times as many friends as the person from our sample. Even the median Facebook user from our sample with a network of 111 friends – the Facebook user who falls in the middle of our sample – sees their average friend as having a friends list that is nearly two and a half times larger than their own (2.4 times larger).

How can it be that people's friends almost always have more friends than they do? This little known phenomenon of friendship networks was first explained by a sociologist Scott Feld [11]. Not just on Facebook, in general and off of Facebook, people are more likely to be friends with someone who has more friends than with someone who has fewer.

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[7] Pearson Correlation -0.205; sig 2-tailed < .01
[8] Pearson Correlation -0.263; sig 2-tailed < .001

Facebook users can on average reach more than 150,000 other Facebook users through friends.

A related dimension of this analysis is how many people the average person can "reach" through friends of his or her friends. Again, the average Facebook user in our sample has 245 friends, and their average friend has 359 friends. We also know that the average friends list is interconnected such that 12% of a user's friends friends are already their friends.

An overly simple calculation would lead us to believe that the average Facebook user in our sample can reach 77,400 people through their friends and their friends of friends (calculated as 245 *(359*1-.12)). However, this calculation overestimates the reach of most people's Facebook networks. The relatively small number of Facebook users who have very large friends lists disproportionately inflates this average, both because their networks tend to be so large and because their networks tend to be less dense on average. In our sample, the reach at 2-degrees of separation is estimated to be as high as 7,821,772 people (for a Facebook user that had a very large friends list that was not very interconnected). Facebook users from our sample on average can reach 156,569 other Facebook users through their friends of friends. The median user can reach 31,170 people through friends of friends.

Group membership and photo tagging is related to knowing more different types of people

In our national phone survey, we measured the diversity of people's overall social networks (not just the diversity of their friends on Facebook) in terms of the variety of people they know from different social positions – a broad measure of diversity, not specifically a measure of contact with different racial or ethnic groups, or political perspectives.

In our June report on *Social Networking Sites and Our Lives* [1], we reported that internet users had relationships that tended to be more diverse than non-users. However, we did not find a relationship between frequent use of Facebook and the diversity of people's overall social networks. That is, we found that frequent and non-users of Facebook knew a similar mix of people as other internet users.

With this new data on how our sample actually used Facebook, we are revisiting the diversity of people's overall social networks to explore how more detailed measures of Facebook use might be related to the breadth of people that one is likely to know. That is, we want to know, are people who use Facebook in certain ways more likely to be sheltered in their exposure to people of different backgrounds and experiences?

Our measure of diversity in our phone sample was based on the well-researched insight that people who know a lot of different types of people have better access to information and resources. We asked respondents in our sample if they knew anyone in 22 different occupations that ranged in occupational prestige.[9] It is worth restating that our measure of diversity encompasses not just people's Facebook friends, but all the different types of people they know.

Based on this sample, we found similar patterns to the ones from our phone survey. The same demographic characteristics in our survey that predicted more diverse social networks still predict social mixing when it comes to examination of server logs showing how they used Facebook (see Appendix A: Table 3).

- Education is a strong predictor of having a diverse social network. The longer people remain in school, the more diverse people they tend to know.
- Age is a weak but significant predictor. Older people tend to know more people from different backgrounds.

Few Facebook activities are correlated with the diversity of people's overall social network. Those relationships that we did find are based on statistically significant, but substantively weak correlations, each sharing only about 2% of the variance with network diversity.

- Those who were added to a Facebook group by one of their friends during the month of our observation tend to know more diverse people overall.
- Those that tag their friends in photographs uploaded to Facebook also tend to know more diverse others.

These findings are consistent with our broader knowledge of relationships. Group membership on Facebook, as well as group membership offline, is associated with knowing people from a greater variety of backgrounds. As we have hypothesized elsewhere [12], photo sharing and tagging on Facebook likely has as much to do with increased exposure to diverse others as it does with increased awareness, by seeing just how diverse existing friends already are. In other words, people who share photos online tend to belong to more diverse groups and they enjoy taking pictures of those groups.

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[9] This list of occupations is based on the work of Nan Lin, Yang-chih Fu, and Chih-jou Jay Che, at the Institute of Sociology, Academia Sinica.

Tagging friends in Facebook photos is related to having more close friends

Sociologists study social networks in a variety of ways. One important dimension is to examine people's core relationships: those people with whom people discuss important matters. These "core ties" can be people we interact with online, offline, or most likely both. In our June 2011 report, and elsewhere, we have reported that internet users tend to discuss important matters with more people than those who do not use the internet [12, 13]. As part of our report on *Social Networking Sites and Our Lives* [1], we found that frequent Facebook users tended to have even more close relationships than those who do not use Facebook.

Facebook activity logs provide the unique opportunity to explore what it is about Facebook that might be associated with having more close ties.

As in our June 2011 report, we find that being female and having more years of education is associated with having more close ties. The only specific Facebook activity that we found to be associated with having more core ties was the act of tagging Facebook friends in photos (see Appendix A: Table 4). However, while statistically significant, the correlation is especially weak. Correlated at .12, photo tagging and core network size share only 2% variation in common. We don't know what it is about tagging that is related to core ties. It may be that those with more close relationships see those relationships more in-person, and thus have photos to upload of these close friends, or it may be that the act of tagging people in photos increases a sense of intimacy or awareness.

Facebook use in general is associated with higher social trust, but no specific Facebook activities in particular are tied to trust

In our *Social Networking Sites and Our Lives* [1] report we found that internet users, and heavy Facebook users in particular, were more trusting than other people. That is, in response to the question "Generally speaking, would you say that most people can be trusted, or that you can't be too careful with people?", they were more likely to respond that most people can be trusted. Through the use of Facebook logs, we had hoped to narrow down what it was about using Facebook that was related to higher levels of social trust.

As in our June report, we found that those who were older and had higher levels of education were more likely to be trusting. However, data from Facebook on the structure of people's friends list (e.g., density), and their participation in specific activities, such as frequency of commenting, did not reveal an association with trust. Frequent Facebook users are more

trusting, but it does not appear to be related to their everyday activities on the site (see Appendix A: Table 5). It maybe that those people who select to use Facebook frequently are more trusting by nature – to begin with – or it may be that use increases trust, or there maybe something else about how people use Facebook that is related to higher trust that we were not able to capture in our data.

Making friends on Facebook has a weak, but positive relationship to higher levels of social support

People receive a range of different types of support on and off of the internet. They get emotional support, such as advice; companionship, such as spending time with someone; and more tangible support, such as help when they are sick. In our report on *Social Network Sites and Our Lives* [1], we found that internet users, and Facebook users in particular received more social support – not just online but from all their relationships combined.

In our survey, we measured support using the MOS Social Support Scale [14] which included measures of "total support," "emotional support," "companionship," and "instrumental aid."

Activity logs of how people actually use Facebook provide further evidence of the positive relationship between Facebook use and social support (see Appendix A: Table 6). Those Facebook users who received more friend requests and accepted more of those friend requests tended to report higher levels of total support. It is interesting to note that sending friend request that were not reciprocated was not associated with more or less support.

Posting status updates is associated with higher levels of emotional support

When we break down our measure of social support into subscales for companionship and instrumental aid, the relationship between friending and support largely disappears. However, the relationship between receiving and approving more friendship requests remained positive, although still weakly correlated, for emotional support. In addition, those people who made more status updates and wall postings also reported higher levels of emotional support (see Appendix A: Table 7). We suspect that the relationship between making frequent status updates and higher levels of emotional support is the result of feedback that people receive from their Facebook friends in response to their posts. It may also be the result of the positive emotional benefit that is often attributed to simply writing about daily problems [15].

Having more friends and being added to groups is associated with attending political meetings

One of the most substantive and perhaps surprising findings from our report on *Social Networking Sites and Our Lives* [1] was the strong relationship between the use of Facebook and various forms of political participation. We found that heavy Facebook users were much more likely to attend political rallies and meetings, to try to influence someone they know to vote for a specific candidate, and to vote or intend to vote.

Data on use of specific Facebook activities adds further clarification to our original findings.

A wide range of activities on Facebook were found to be associated with attending political meetings (see Appendix A: Table 8). Although the relatively weak relationship, the number of activities associated with attending political meetings is very high. Those users who have more friends, have more friends of friends, were either added to a Facebook group or added someone else to a group, sent more personal messages, received more wall posts, tagged a friend in a photo, or were tagged themselves in a photo, were more likely to report that they attended a political meeting or rally.

Those added to Facebook groups are more likely to try to persuade someone to vote for a specific candidate

Other political activities, such as voting and trying to influence others to vote for a specific candidate, are associated with a more specific set of Facebook activities.

Participation in Facebook groups, either by being added to a group or adding someone else, was weakly associated with trying to influence someone to vote in a specific way (see Appendix A: Table 9).

While we did find that Facebook users are more likely to vote in general [1], we did not uncover any specific Facebook activity that was associated with a higher likelihood of voting. Rather, we found that some activities were weakly associated with not voting – such as having a friend request accepted (see Appendix A: Table 10).

We do not have a complete explanation for why Facebook users in general are more likely to vote, but we found that this tendency is slightly lower among those who have more friend requests accepted or post links on the site.

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Methodology

Some of this report is based on the findings of a national survey on Americans' use of the internet and computer logs of how people use Facebook as provided by Facebook, Inc.

Facebook logs data: To obtain computer logs of Facebook usage, at the end of our survey participants were asked if they would volunteer to allow Facebook to share computer logs of their use of the Facebook service. Participants who agreed volunteered their email address to be matched with Facebook computer logs. A total of 269 survey respondents gave permission for Facebook to provide data on their use of the service. This represents 12% of those who agreed to participate in the national survey. In some cases, where noted in our analysis, Facebook was not able to generate specific measures for all participants and the number of cases may be lower.

Survey methodology: The survey results in this report are based on data from telephone interviews conducted by Princeton Survey Research Associates International from October 20 to November 28, 2010, among a sample of 2,255 adults, age 18 and older. Interviews were conducted in English. A combination of landline and cellular random digit dial (RDD) samples was used to represent all adults in the continental United States who have access to either a landline or cellular telephone. Both samples were provided by Survey Sampling International, LLC (SSI) according to PSRAI specifications. Numbers for the landline sample were selected with probabilities in proportion to their share of listed telephone households from active blocks (area code + exchange + two-digit block number) that contained three or more residential directory listings. The cellular sample was not list-assisted, but was drawn through a systematic sampling from dedicated wireless 100-blocks and shared service 100-blocks with no directory-listed landline numbers. The final data also included callback interviews with respondents who had previously been interviewed for 2008 Personal Networks and Community survey. In total, 610 callback interviews were conducted – 499 from landline sample and 111 from cell sample.

A new survey sample was released daily and was kept in the field for at least five days. The sample was released in replicates, which are representative subsamples of the larger population. This ensures that complete call procedures were followed for the entire sample. At least 7 attempts were made to complete an interview at a sampled telephone number. The calls were staggered over times of day and days of the week to maximize the chances of making contact with a potential respondent. Each number received at least one daytime call in an attempt to find someone available. The introduction and screening procedures differed

depending on the sample segment. For the landline RDD sample, half of the time interviewers first asked to speak with the youngest adult male currently at home. If no male was at home at the time of the call, interviewers asked to speak with the youngest adult female. For the other half of the contacts interviewers first asked to speak with the youngest adult female currently at home. If no female was available, interviewers asked to speak with the youngest adult male at home. For the cellular RDD sample, interviews were conducted with the person who answered the phone. Interviewers verified that the person was an adult and in a safe place before administering the survey. For landline or cell callback sample, interviewers started by asking to talk with the person in the household who had previously completed a telephone interview in the 2008 survey. The person was identified by age and gender. Cellular sample respondents were offered a post-paid cash incentive for their participation. All interviews completed on any given day were considered to be the final sample for that day.

The disposition reports all of the sampled telephone numbers ever dialed from the original telephone number samples. The response rate estimates the fraction of all eligible respondents in the sample that were ultimately interviewed. At PSRAI it is calculated by taking the product of three component rates:

- **Contact rate** – the proportion of working numbers where a request for interview was made
- **Cooperation rate** – the proportion of contacted numbers where a consent for interview was at least initially obtained, versus those refused
- **Completion rate** – the proportion of initially cooperating and eligible interviews that were completed

Thus the response rate for the landline sample was 17.3 percent. The response rate for the cellular sample was 19.9 percent.

Following is the full disposition of all sampled telephone numbers:

Table A1:Survey Sample Disposition

Landline Fresh	Landline Callback	Landline Total	Cell Fresh	Cell Callback	Cell Total	
22057	1996	24053	12685	476	13299	**T** Total Numbers Dialed
1078	28	1106	198	6	204	**OF** Non-residential
959	19	978	32	0	32	**OF** Computer/Fax
12	1	13	0	0	0	**OF** Cell phone
9930	372	10302	4856	84	4940	**OF** Other not working
1331	37	1368	163	4	167	**UH** Additional projected not working
8747	1539	10286	7436	382	7957	Working numbers
39.7%	77.1%	42.8%	58.6%	80.3%	59.8%	Working Rate
444	12	456	54	1	56	**UH** No Answer / Busy
1874	222	2096	1780	71	1851	**UO**$_{NC}$ Voice Mail
53	113	166	9	1	10	**UO**$_{NC}$ Other Non-Contact
6376	1192	7568	5593	309	6040	Contacted numbers
72.9%	77.4%	73.6%	75.2%	80.8%	75.9%	Contact Rate
276	85	361	592	44	636	**UO**$_R$ Callback
4774	585	5359	3631	140	3771	**UO**$_R$ Refusal
1326	522	1848	1370	125	1633	Cooperating numbers
20.8%	43.8%	24.4%	24.5%	40.5%	27.0%	Cooperation Rate
263	15	278	262	11	273	**IN1** Language Barrier
		0	447	1	448	**IN2** Child's cell phone
1063	507	1570	661	113	912	Eligible numbers
80.2%	97.1%	85.0%	48.2%	90.4%	55.8%	Eligibility Rate
53	8	61	26	2	28	**R** Break-off
1010	499	1509	635	111	884	**I** Completes
95.0%	98.4%	96.1%	96.1%	98.2%	96.9%	Completion Rate
14.4%	33.4%	17.3%	17.7%	32.1%	19.9%	Response Rate

Appendix A: Additional Tables

Table 1: Correlations of Time on Facebook and Friend Count with Frequency of Participation in Facebook Activities.

	Friend Count	**Days on Facebook**
Friending		
Accepted a friend request	.745***	0.128
Had friend request accepted	.606***	0.12
Sent a friend request	.676***	0.125
Received a friend request	.764***	0.133
Liking		
Liked a friend's content	0.312***	0.155*
Had content liked	.359***	.157*
Private Messages		
Sent a private message	.243***	0.093
Received a private message	.295***	0.088
Commenting		
Received a comment	.402***	.258***
Commented on a friend's content	.548***	.310***
Posting		
Posted a status update or wall post	0.453***	.361***
Received a wall post	.402***	.258***
Photo Tagging		
Tagged a friend in a photo	.296***	.275***
Was tagged in a photo	.295***	.254***
Groups		
Added someone to a group	.198**	0.095
Was added to a group by someone	.415***	0.13
Poking		
Poked a friend	.203**	0.128
Was poked	.188**	0.121
Hiding		
Hid a friend from newsfeed	0.001	.144*

Note: *p<.05, **p<.01, ***p<.001

Table 2: Comparison of Proportions, Accuracy of Self-Reports of Facebook Data.

	Liking			Message			Post status			Commenting		
	Actual	Self-report	Diff. of Prop.	Actual	Self-report	Diff. of Prop.	Actual	Self-report	Diff. of Prop.	Actual	Self-report	Diff. of Prop.
Several times a day	12.4	16.2		7.1	4.1		9.7	6.7		21.6	28.4	
About once a day	2.6	10.5		3.7	6		2.6	5.2		3	4.1	
3-5 days a week	9.4	8.3		7.8	7.1		11.2	9		7.5	14.6	**
1-2 days a week	8.3	13.9	*	8.6	16.8	**	10.1	13.1		8.6	16.4	**
Every few weeks	3	8.6	**	4.5	19.8	***	5.6	17.5	***	2.6	4.9	
Less often /never	64.3	42.5	***	68.3	46.3	***	60.8	48.5	**	56.7	31.7	***
N	266	266		268	268		268	268		268	268	

Note: * p<.05 ** p<.01 *** p<.001

Graph 1: Density of Facebook Friend Networks. (N=193)
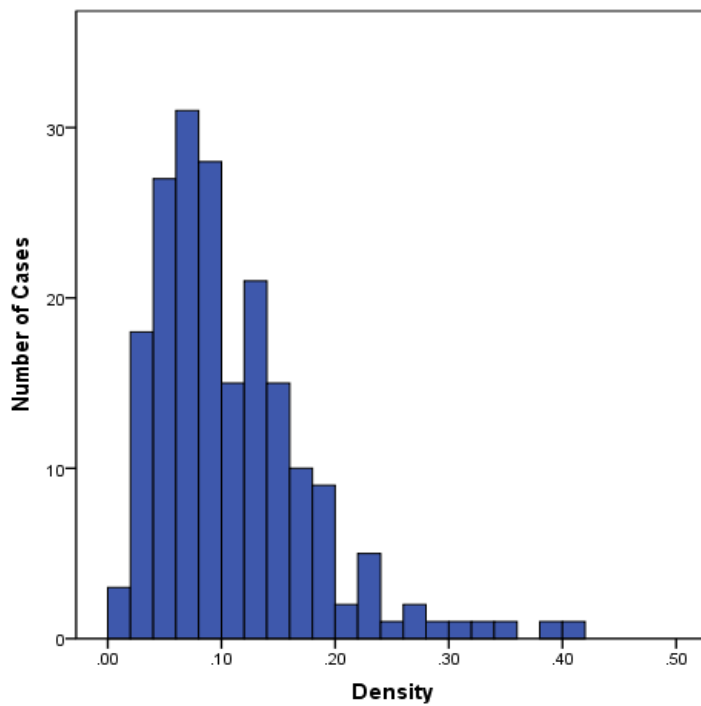
Table 3: Correlations of Network Diversity with Frequency of Participation in Facebook Activities.

	Correlation		N
Demographics			
Age	0.045	*	268
Education	-0.198	***	268
Female	-0.01		269
Facebook Friends			
Friend count	0.045		204
Density	-0.108		193
Two degree friends	-0.01		203
Activity			
Accepted a friend request	-0.028		269
Had friend request accepted	-0.046		269
Sent a friend request	-0.041		269
Received a friend request	-0.024		269
Liked a friend's content	-0.011		269
Had content liked	0.041		269
Sent a private message	0.058		269
Received a private message	0.004		269
Commented on a friend's content	0.043		269
Received a comment	0.082		269
Posted a status update or wall post	0.063		269
Received a wall post	0.057		269
Tagged a friend in a photo	0.147	*	269
Was tagged in a photo	0.144		269
Added someone to a group	0.046		269
Was added to a group by someone	0.149	*	269
Poked a friend	0.053		269
Was poked by a friend	0.059		269
Hid a friend from newsfeed	-0.049		269

Note: *p<.05, **p<.01, ***p<.001

Table 4: Correlations of number of Core Ties with Frequency of Participation in Facebook Activities.

	Correlation		N
Demographics			
Age	0.106		263
Education	0.279	***	263
Female	0.146	*	264
Facebook Friends			
Friend count	-0.071		203
Density	0.042		192
Two degree friends	-0.079		202
Activity			
Accepted a friend request	-0.096		264
Had friend request accepted	-0.077		264
Sent a friend request	-0.089		264
Received a friend request	-0.098		264
Liked a friend's content	0.043		264
Had content liked	0.023		264
Sent a private message	-0.053		264
Received a private message	-0.073		264
Commented on a friend's content	0.069		264
Received a comment	0.067		264
Posted a status update or wall post	0.09		264
Received a wall post	0.027		264
Tagged a friend in a photo	0.123	*	264
Was tagged in a photo	0.073		264
Added someone to a group	0.032		264
Was added to a group by someone	0		264
Poked a friend	0.044		264
Was poked by a friend	0.045		264
Hid a friend from newsfeed	-0.079		264

Note: *p<.05, **p<.01, ***p<.001

Table 5: Correlations of Social Trust with Frequency of Participation in Facebook Activities.

	Correlation		N
Demographics			
Age	0.246	***	268
Education	0.26	***	268
Female	-0.043		269
Facebook Friends			
Friend count	0.049		204
Density	0.044		193
Two degree friends	0.06		203
Activity			
Accepted a friend request	0.004		269
Had friend request accepted	-0.019		269
Sent a friend request	-0.001		269
Received a friend request	0.004		269
Liked a friend's content	-0.061		269
Had content liked	0.056		269
Sent a private message	-0.062		269
Received a private message	-0.007		269
Commented on a friend's content	-0.034		269
Received a comment	0.003		269
Posted a status update or wall post	-0.048		269
Received a wall post	-0.054		269
Tagged a friend in a photo	0.03		269
Was tagged in a photo	-0.069		269
Added someone to a group	0.033		269
Was added to a group by someone	0.018		269
Poked a friend	0.024		269
Was poked by a friend	0.021		269
Hid a friend from newsfeed	-0.092		269

Note: *p<.05, **p<.01, ***p<.001

Table 6: Correlations of Social Support with Frequency of Participation in Facebook Activities.

	Correlation		N
Demographics			
Age	-0.074		268
Education	0.103		268
Female	-0.001		269
Facebook Friends			
Friend count	0.109		204
Density	-0.117		193
Two degree friends	0.041		203
Activity			
Accepted a friend request	0.131	*	269
Had friend request accepted	0.116		269
Sent a friend request	0.103		269
Received a friend request	0.132	*	269
Liked a friend's content	0.07		269
Had content liked	0.015		269
Sent a private message	0.052		269
Received a private message	0.074		269
Commented on a friend's content	0.09		269
Received a comment	0.021		269
Posted a status update or wall post	0.107		269
Received a wall post	0.105		269
Tagged a friend in a photo	0.026		269
Was tagged in a photo	0.052		269
Added someone to a group	0.008		269
Was added to a group by someone	0.052		269
Poked a friend	-0.036		269
Was poked by a friend	-0.036		269
Hid a friend from newsfeed	0.073		269

Note: *p<.05, **p<.01, ***p<.001

Table 7: Correlations of Types of Social Support with Frequency of Participation in Facebook Activities.

Variable	Tangible Correlation	Positive Interaction Correlation	Emotional/ Informational Correlation		N
Demographics					
Age	-0.042	-0.085	-0.071		268
Education	0.089	0.027	0.177		268
Female	-0.045	-0.052	0.05		269
Facebook Friends					
Friend count	0.068	0.097	0.108		204
Density	-0.115	-0.074	-0.102		193
Two degree friends	0.021	0.028	0.047		203
Activity					
Accepted a friend request	0.092	0.109	0.132	*	269
Had friend request accepted	0.095	0.095	0.109		269
Sent a friend request	0.09	0.078	0.095		269
Received a friend request	0.091	0.115	0.132	*	269
Liked a friend's content	-0.024	0.115	0.095		269
Had content liked	-0.066	0.04	0.054		269
Sent a private message	-0.02	0.09	0.07		269
Received a private message	-0.001	0.098	0.094		269
Commented on a friend's content	0.023	0.087	0.111		269
Received a comment	-0.033	0.031	0.046		269
Posted a status update or wall post	0.027	0.089	0.139	*	269
Received a wall post	0.09	0.1	0.089		269
Tagged a friend in a photo	-0.033	0.065	0.041		269
Was tagged in a photo	-0.002	0.101	0.053		269
Added someone to a group	-0.046	0.083	0.01		269
Was added to a group by someone	-0.017	0.067	0.077		269
Poked a friend	-0.092	0.024	-0.015		269
Was poked by a friend	-0.091	0.023	-0.016		269
Hid a friend from newsfeed	0.051	0.063	0.073		269

Note: *p<.05, **p<.01, ***p<.001

Table 8: Correlations of Attending Political Rallies/Meetings with Frequency of Participation in Facebook Activities.

	Correlation		N
Demographics			
Age	0.155	*	268
Education	0.192	**	268
Female	-0.057		269
Facebook Friends			
Friend count	0.157	*	204
Density	0.069		193
Two degree friends	0.138	*	203
Activity			
Accepted a friend request	0.037		269
Had friend request accepted	0.086		269
Sent a friend request	0.084		269
Received a friend request	0.05		269
Liked a friend's content	0.087		269
Had content liked	0.023		269
Sent a private message	0.128	*	269
Received a private message	0.09		269
Commented on a friend's content	0.07		269
Received a comment	0.073		269
Posted a status update or wall post	0.095		269
Received a wall post	0.13	*	269
Tagged a friend in a photo	0.142	*	269
Was tagged in a photo	0.148	*	269
Added someone to a group	0.217	***	269
Was added to a group by someone	0.156	*	269
Poked a friend	0.042		269
Was poked by a friend	0.046		269
Hid a friend from newsfeed	-0.035		269

Note: *=p<.05, **=p<.01, ***=p<.001

Table 9: Correlations of Trying to Influence Another's Vote with Frequency of Participation in Facebook Activities.

	Correlation		N
Demographics			
Age	0.185	**	268
Education	0.222	***	268
Female	-0.087		269
Facebook Friends			
Friend count	-0.032		204
Density	0.003		193
Two degree friends	-0.063		203
Activity			
Accepted a friend request	-0.034		269
Had friend request accepted	-0.079		269
Sent a friend request	-0.081		269
Received a friend request	-0.045		269
Liked a friend's content	-0.012		269
Had content liked	0.057		269
Sent a private message	-0.02		269
Received a private message	-0.048		269
Commented on a friend's content	-0.009		269
Received a comment	0.042		269
Posted a status update or wall post	-0.001		269
Received a wall post	-0.015		269
Tagged a friend in a photo	0.043		269
Was tagged in a photo	0.045		269
Added someone to a group	0.124	*	269
Was added to a group by someone	0.137	*	269
Poked a friend	0.089		269
Was poked by a friend	0.09		269
Hid a friend from newsfeed	0.062		269

Note: *p<.05, **p<.01, ***p<.001

Table 10: Correlations of Voting with Frequency of Participation in Facebook Activities.

	Correlation		N
Demographics			
Age	0.381	***	265
Education	0.277	***	265
Female	-0.004		266
Facebook Friends			
Friend count	0.008		201
Density	0.137		190
Two degree friends	0.036		200
Activity			
Accepted a friend request	-0.027		266
Had friend request accepted	-0.124	*	266
Sent a friend request	-0.108		266
Received a friend request	-0.024		266
Liked a friend's content	0.027		266
Had content liked	0.048		266
Sent a private message	0.028		266
Received a private message	0.02		266
Commented on a friend's content	-0.004		266
Received a comment	0.036		266
Posted a status update or wall post	-0.004		266
Received a wall post	-0.007		266
Tagged a friend in a photo	0.064		266
Was tagged in a photo	-0.011		266
Added someone to a group	0.064		266
Was added to a group by someone	0.078		266
Poked a friend	0.031		266
Was poked by a friend	0.033		266
Hid a friend from newsfeed	0.049		266

Note: *p<.05, **p<.01, ***p<.001