

An Empirical Test of the Social Media User Typology Framework

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Abstract: *This study examined the differences between social media user types on a host of independent variables. User types were based on the Media-User Typology which explicates user types into five categories based on their media usage patterns. Several predictors of user type were included in logistic regression analysis to see the differences between each of the five categories of user type.*

Results indicate that significant differences in the "sporadic" and "advanced" user groups, but very little differences exist among the "lurker", "socializer", and "debater" groups. Members of the "advanced" group spend more time using social media, have a large number of followers. They are also more likely to meet someone they came across online in a face-to-face situation and drive while using social media.

Limitations in this study include the cross-sectional data employed in the study do not warrant a claim of any causal relationships between the independent and dependent variables. Moreover, the sample which had female to male ratio of 2:1 which could skew the results by showing more variance in the former compared to the latter.

Finally, all variables were based on self-reports. For example, the independent variable "time spent using social media" was measured by asking participants how much time they spend using social media on a typical day. Even though this question measures usage time accurately, uncertainty remains as to whether users are active all the time they are logged on to a specific application.

Keywords: *Social Media, Internet, Twitter, Typology.*

I. Introduction

The emergence of wireless communication technologies has forever changed the way we interact. These tools allow us to communicate with each other at levels unprecedented in modern history. More recently, advanced forms of Internet communication technologies known as "social media" (SM) have become immensely popular (Boyd and Ellison, 2006).

Among the more interesting trends is the appearance of online social networks, portals that enable individuals to create a system of relations with others. The virtual communities resulting from these social networks allow people to communicate with persons they would like to be acquainted with for a variety of reasons that they otherwise would not be able to meet. The most popular social networking media are microblogs such as "Twitter", instant messaging services such as "Whatsapp" and online photo-sharing, video-sharing portals such as "Instagram." "What is unique about online social networking is the ability to define one's own virtual space and interact in new ways. Studies have shown that users on many of these sites aren't looking to meet new people but to communicate with others who are already part of their social networks".

Fundamentally, online social media enable their users to connect with individuals who have common interests while allowing them to become independent communicators. The most popular social media such as Twitter and Instagram allow their users not only to show their social network in their profiles but also control most of the content of their personal pages where the users can post individual messages, share photos and videos, track friends and organize events. In other words, with the help of social media now anybody can obtain their own personal online portal and have it linked to others.

Although social media seem to be altering the way people utilize the Internet, little is known about how they influence people's socialization processes, feelings, communication habits and social displacement. Most of the studies on social media were related to issues like privacy and business models. Some research, which studied the effects of social media provides useful insights about how users' behaviors are shaped (Mehdizadeh, 2010; Mansson and Myers, 2011; Ryan and Xenos, 2011). However, little consideration is given to how psychological and social factors mold the user's experience. In addition, the majority of these studies focus almost exclusively on a single mode of delivery, the personal computer.

Social Media: A User Typology Framework

This study used a typology approach based on the Unified Media User Typology developed by Brandtzaeg (2010). Accordingly social media user type is based on

frequency of use, type of activity and social capital are as follows: (1) Sporadics (low level users of social media, 2) Lurkers (people who use social media, but do not contribute or interact, 3) Socializers (people who use social media mainly for social interaction with friends and family), 4) Debaters (people who use social media mainly for debating and discussion), and 5) Advanced (people who use social media frequently for almost all purposes, such as socializing, debating, and contributing). These types differ greatly from each other in terms of user activity and social roles within social media. Table 1 summarizes the criteria for defining user types by media behavior as explicated by Brandtzaeg (2010).

[Table 1 about here]

The typology is based on distinct user behavior, instead of their overt goals or motivations. The user types adopted in this typology are based on a series of logical arguments and empirical observations that identify the complete user typology (Doty and Glick, 1994). In addition, user types can (a) measure and define variations in media usage, (b) recognize the different requirements and motivations that users in different segments of society have for using social media or (c) understand how various user groups are likely to respond to different types of social media usage in terms of psychological and social implications (Barnes et al., 2007).

This exploratory study aims to investigate the empirical validity of the social media user typology. It seeks to answer the general question: Are there any differences between user types with regards to their social media usage patterns and their consequences? More specifically, the study aims to investigate some of the behavioral factors that come into play when an individual uses the social networking interface through a variety of delivery media such as intelligent mobile phones, tablets and moblets which differ significantly in terms of user experience from personal computers.

Furthermore, the study will focus exclusively on the heaviest users of social media today, young people between the ages of 18 and 25. Addressed will be issues related specifically to the behavioral indicators associated with different user types. Specifically we will look at time spent using social media, the number of people on each user's social network, whether the user identifies his real identity, or met someone in person and finally whether they use social media while driving. The latter being a surrogate measure of social media dependency.

II. Research objectives

The general aim of this study is see whether there are differences between different user types in terms of their behavioral patterns. It is in essence a preliminary empirical test of the Media-User Typology proposed by Brandtzaeg (2010). Specifically, we seek to answer the following research questions:

RQ1: Are there any significant differences among user groups in terms of the time they spend using social media?

RQ2: Are there any significant differences among user groups in terms of the length of experience they had with social media?

RQ3: Are there any significant differences among user groups in terms of the number of followers?

RQ4: Are there any significant differences among user groups in terms of whether they use their real identity while using social media?

RQ5: Are there any significant differences among user groups in terms of whether they met an online acquaintance in person?

RQ6: Are there any significant differences among user groups in terms of whether they use social media while they drive?

III. Method

Sample

A self-administered survey questionnaire was used for this study. Because young people constitute the core users of social media, the data were collected from a sample of purposively selected college students. College students enrolled in coursework in mass communication at a large state university in Kuwait were asked to participate in this study. The questionnaires were distributed over a period of three months starting in March 2013. The total sample size was 808. Arabic was the language used in the questionnaire.

Students were assured of anonymity and confidentiality, and participation was voluntary. The age of the participants ranged from 18 to 39 with 93% ranging between 18 to 25 years of age. The mean age of the participants in the study was 21 years. The participants were 239 (29.6%) male and 569 (70.4%) female. This gender distribution reflects the enrollment profile of the university student body which is 70% female. Finally, since this is a state university, the overwhelming majority were Kuwaiti nationals by law so there was no need to record nationality.

The self-administered questionnaires were distributed during regularly scheduled class sessions. The instrument consisted of both Likert scale questions used to measure the individual's perceptions, attitudes and behaviors as well as demographic questions and questions about media use patterns.

Independent Variables

Hours Spent Using Social Media Per Day

Respondents were asked a single question about the total number of hours spent using social media daily on an eight point scale: (1) less than two hours, (2) from two to 4 hours, (3) from 4 to 6 hours, (4) from 6 to eight hours, (5) from eight to 10 hours, (6) from 10 to 12 hours, (7) from 12 to 14 hours, (8) more than 14 hours.

Length of experience with social media

Respondents were asked how long they have been social media. They had eight options to choose ranging from “less than a year” to “More than six years.”

Number of “followers” and “following”

Respondent were asked to report the number of their followers and the ones they are following. This was an open-ended question and subjects were free to put any number that reflects their case.

Usage of real name

Respondents were if they generally use their real name while using social media. The response is a simple yes or no.

Meet someone in person

Respondents were asked if they met someone they first came in contact with online in person. The answer is a simple yes or no.

Drive while using social media

Respondents were asked if they typically use social media while driving. The answer, once again, is a simple yes or no.

Dependent Variable

Social media user type

First, respondents had to choose among five statements that best described the nature of their social media usage. The statements were based on the Media User Typology described earlier and they are listed in Table 2. Table 3 contains the sample frequency distribution of all five user types.
[Tables 2 and 3 about here]

Five groups were created by constructing a dummy variable for each group. A recoding of each of the five variables was performed so that for any individual, 1 was given if he or she was a member of a particular user group, otherwise a zero was assigned. The result was five distinct and mutually exclusive user groups ranging from “sporadic” to “advanced.”

IV. Results

Key descriptive statistics of social media use patterns of the sample

Before we get to the research questions I will present some descriptive statistics about social media use patterns so we may have a better understanding of the general parameters of the sample we are analyzing. This will help us to draw a better picture of social media landscape among young users in Kuwait.

Number of mobile phones

One may assume that under normal circumstances the average person owns one mobile phone. Some persons under certain conditions may own more than one mobile phone. For example, some companies give some of their employees a phone to be used for business communication only, especially if their job requires a great deal of traveling and contact must be assured at all times. However, you don’t expect that to be the case for college students. The numbers from our sample show this expectation to be erroneous. As table 1 indicates a full 51% of the sample own two mobile phones, and 7.5% own three phones or more. Compare that to the US for example where the average person has 1.57 phones.²⁹ However, that figure includes not only phones, but also other mobile devices such as tablets with 3G and 4G connections. In our sample participants were asked about mobile phones only.

Social medium used the most

When asked if they used social media 98.9% of the participants said yes. They were then asked about the social media app they used the most. In a separate question they were asked to choose which social media they used and they could choose all that apply. In this question, however, they were asked to choose only one

from the ones they listed. WhatsApp is the leader by far (43.1%), followed by Blackberry Messenger (21.2%), Instagram (17.9%) and Twitter (14%).

Type of device used the most to access social media

Participants were asked to choose one device only among a choice of three; mobile phone, laptop or tablet. Results show the mobile phone to be the overwhelming choice for accessing social media (96.5%). It is worth noting that all “intelligent” mobile phones such as the iPhone and Samsung Galaxy come with “Internet access anywhere” packages through mobile providers in Kuwait.

Using social media while driving

This may sound like a trivial matter, but it is not. In addition to the clear danger it represents, it is also a violation of traffic laws in Kuwait. Nonetheless, this variable could serve as a useful indicator of heavy reliance on social media. Participants were asked if they use social media while driving. The answer was a simple yes or no. Results show that a sobering 75.9% admitting to driving under the influence of social media. It is worth noting that the driving age in Kuwait is 18 years and from personal observation and judging by the traffic congestion around campus, almost all university students drive to school.

Main research questions

To answer the six research questions the author used logistic regression analysis. This statistical procedure is used for predicting categorical outcomes from continuous or categorical predictors. Logistic regression is essentially multiple regression but with an outcome variable that is categorical and predictor variables that are continuous or categorical (Demaris, 1985).

Table 4 shows results of five logistic regression models representing each of the user groups. The numbers are Z values associated with the underlying beta weights. The coefficients represent the magnitude, direction, and significance of the statistical relationships between the independent variables and group membership. Looking at the group “sporadic” we observe a significant relationship between being in this group and time spent using social media ($Z=17.95$, $p\leq.001$). This means that “sporadic” users spend significantly more time using social media compared to other groups. In addition, individuals in the same group are more likely to meet someone in person from the people they met first online.

[Table 4 about here]

“Lurkers” also spend more time online, but to a lesser degree than “sporadics” as indicated by the magnitude of the Z score ($Z=5.7$, $p\leq.001$). “socializers” showed no significant differences in any of their predictors. The same is true for “debaters” as none of the predictors showed any significance in this group.

Finally, the user group with the most significant predictors is the “advanced” group. This group was predicted by all independent variables save two. Accordingly, this group is more likely to be represented by females ($Z=4.73$, $p<.05$). It is second only to the “sporadic” group in terms of time spent using social media ($Z=13.07$, $p\leq.001$). Advanced users were more likely than any of the other groups to follow a lot of people through social media. They are also more likely to meet someone in person ($Z=4.40$, $p<.05$). Perhaps, more alarmingly, they are the most likely among all other groups to use mobile social media while driving ($Z=3.54$, $p<.05$).

V. Discussion

The most interesting finding is the fact that there is more variation on the periphery than in the middle. The groups with the most significant results are the least involved (sporadics) and the most involved (advanced). For example, the most casual users of social media, the sporadics, are the ones who spend the most time using social media followed by the advanced while the other groups showed no differences whatever. While the second outcome is intuitive the first one is puzzling. How can light, casual users spend more time using social media than the socializers or the debaters? One possible explanation is they have the social media device on, but they are not actively using it.

Equally interesting is the fact that light “sporadics” are more likely than the heavier “socializers” and “debaters” to meet someone in person they first met online. One possible explanation is they feel less inhibited or socially apprehensive because they are not involved in heated discussions or debate or take positions on issues that may make it unpleasant or maybe even unsafe to meet someone in person. However, this possibility diminishes somewhat given the fact that advanced users are also likely to meet someone in person albeit to a slightly lesser degree. But, it is worth noting that debaters who are the ones most likely to get involved in heated discussions are extremely unlikely to meet someone in person giving credence to the social apprehension notion.

Finally, across all groups none is willing to use their real name as their online persona. This finding may be culture specific since Kuwait is a conservative society and it is considered inappropriate to make one’s identity public to total strangers on the Internet unless one is a public figure. This is especially true for females who make up three quarters of our sample. One can also surmise that making a user’s identity public will lead

to less openness in discussing issues especially those with taboo overtones. Using a pseudonym gives users the protection required to voice more daring opinions without fear of social sanctions.

VI. Limitations

There are several limitations that might influence the generalizability of these findings. First, the cross-sectional data employed in this study do not warrant a claim of any causal relationships between the independent and dependent variables. Moreover, the sample which had female to male ratio of 2:1 could skew the results by showing more variance in the former compared to the latter. In fact, all results which showed gender differences were in favor of females. Perhaps a quota sample with equal numbers of males and females should have been used to insure that we don't get gender differences because of the uneven distribution.

Second, operationalizing some constructs might limit the scope of the study. All social and psychological variables in addition to the main independent variable were based on self-reports. For example, the main independent variable "time spent using social media" was measured by asking participants how much time they spend using social media on a typical day. Even though this question measures usage time accurately, uncertainty remains as to whether users are active all the time they are logged on to a specific application. Heavy and light users can be better analyzed in future studies by inquiring how many messages are sent or received each day.

Third, the operationalization of typical social media use provided a viable empirical portrait to examine the research questions, but might not precisely reflect the complexity of an individual's use patterns. It is probable that each individual uses several social media functions (e.g. Chat, post pictures, audio or video) each day. Researchers would benefit from developing tools for capturing the complexity of social media and user patterns.

Finally, the fact that data collected for this study of social media was limited to college students' use should be taken into consideration. Only investigating college students' social media usage might not completely explain the electronic social networking behavior. Future researchers are also strongly encouraged to attempt to replicate these findings by analyzing users of different social media platforms (e.g. Twitter, Instagram...etc.) separately to account for the different features they provide.

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Table 1 Social Media (SM) User Typology

User type	Frequency of use	Typical activity
Sporadic	Low use	No particular activity. The internet is rarely used for private purposes. Low interest, less experienced.
Lurker	Medium use	Lurking, time killing.
Socializer	Medium use	Socializing, keeping in touch with friends and family, and connecting with new acquaintances. Active social life, more spontaneous and flexible.
Debater	Medium use	Discussion and information acquisition and exchange. Purposeful action.
Advanced	High use	All (gaming, homepage design, shopping, programming, video, etc.)

Based on the work of Brandtzæg (2010)

Table 2 Measurement of Social Media User Type

User Type	Corresponding Statement
Sporadic	I use social media incidentally and sporadically.
Lurker	I use social media constantly, but only to observe what's going on without contributing.
Socializer	I use social media constantly to socialize with others.
Debater	I use social media constantly for serious discussions about public issues.
Advanced	I use social media constantly both for socializing and discussing public issues.

Table 3 Frequency Distribution of User Types

User Type	Frequency	%
Sporadic	102	12.6
Lurker	114	14.1
Socializer	189	23.4
Debater	32	4.0
Advanced	350	43.4

n=787

Table 4 Predicting Social Media (SM) User Type by Various SM Usage Patterns: Logistic Regression Analysis

Predictors	Sporadic	Lurker	Socializer	Debater	Advanced
Gender	.503	3.30	3.36	.105	4.73*
Hours spent using SM per day	17.92**	5.76**	1.86	.626	13.07**
How long using SM	.613	1.79	.138	.065	.120
Number of followers	.606	.019	3.12	2.13	1.87
Number following	.358	1.38	1.12	.528	6.94*
Use real name	1.44	1.92	1.47	.000	.541
Meet someone in person	5.02*	1.22	.209	.010	4.40*
Drive while using SM	.012	.859	1.07	.593	3.54*

Entries are Wald's Z values associated with beta weights. Coefficients represent the direction and significance of the statistical relationship. *p <.05, **p ≤.001, n=787