

THE INTERNET AS MAGNIFYING GLASS: MARITAL STATUS AND ON-LINE SOCIAL TIES

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Abstract

The article investigates the relationship between real and virtual social spaces and the role marital status plays in mediating it. Marital status is used as an indicator for emergence of "loose connections" in American society. The study employs survey data collected from 1812 Los Angeles residents. Data analysis by logistic regression and analysis of variance indicates that although singles find the Internet more attractive, due to its social capabilities (e.g., making new friends), it is married individuals that benefit the most from having on-line ties. The general conclusion is that integration of Internet technologies in social life is steered by off-line social contexts. Singles, who have weaker social ties and lower level of commitment to formal and informal organisations, instinctively see the Internet as a social opportunity. Yet, they will be far less successful in taking advantage of this opportunity than married individuals are. Married individuals benefit from what appears to be the Internet's "magnifying glass" effect: strong personal bonds in reality are strengthened by making Internet friends.

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Introduction

The spectacular diffusion of computerised communication networks in the United States during the last decade has inspired a vivid debate about their potential for social renewal. Drawing on an already rich research literature, which for several decades had described the virtues of computer-mediated communication, especially its capacity to connect those that are less likely to participate in social life (singles, elderly, minorities), a number of engineers and enthusiasts (Barlow 1994; Licklider and Taylor 1968; Rheingold 2001) followed by a number of researchers and academics (Anderson et al. 1995; Hiltz and Turoff 1978; Sproull and Kiesler 1991; Watson 1997) have propagated the idea that computer-mediated communication can foster a new social covenant, which can rejuvenate formal and informal institutions through increased opportunities to communicate and connect with other people. Computer-mediated communication was believed to foster a new social form, virtual community, which is a superior type of human association. When the Internet¹ became the dominant on-line technology, it was immediately invested with the capacity to nourish new opportunities for more authentic dialogue between people, better understanding and renewed social engagement.

In the last several years, however, researchers inspired by a broader sociological perspective have questioned this "direct effects" proposition. They have advanced an alternative view: in order to understand what is unique about the Internet social scene we have to understand first the general social and cultural forces that surround it (Baym 1998; Fernback and Thompson 1995; Jones 1997). Their social-influence vision offers a more refined explanatory framework for the role of the Internet in mediating social interaction. The strong point of this vision is that it refuses to see the Internet as an external force. Rather, it views it as a social creation itself. Internet use and impact are the product of a number of factors: social, cultural and technological (Baym 1998; Contractor and Eisenberg 1990; Jones 1997). This scholarship, identified with the more general field of "social shaping of technology" (Dutton 1996), can be synthesised in the proposition that communication technologies are the product of social choices that predate them. The Internet, like any other medium, is rooted in social and cultural history and virtual community should be linked to socio-cultural forces, outside the domain of technology, *per se*.

Going beyond generalities, a number of theorists (Baym 1998; Fernback and Thompson 1995; Jones 1997, 451; Wellman 2001) have re-defined the social effects paradigm even further. For example Jones (1997) proposes the view that the Internet has become the new necessary frontier for maintaining the process of social mobility and cultural fragmentation built into the logic of mature industrial-capitalist societies. These societies have destroyed the aristocratic "vast enclosures" (Tocqueville 1958) of traditional society, in which individuals are kept apart by law and custom. In doing so, they have eased the "burden of respectability," of behaving in an ascribed way. Freedom is interpreted not as refusing subordination to other people's will but as the right to re-invent oneself and to maintain a larger and more flexible number of social ties (Bellah et al. 1996; Yankelovich 1981). In Jones' (1997) opinion the Internet is perceived as one of the possible mechanisms of reinventing oneself. On-line users' purportedly fluid identities reflect the as-

sumption and the desire that the new medium will be more hospitable to those who reject the right of reference groups to define who they are.

Fernback and Thompson (1995) agree with Jones regarding the increasingly popular view that virtual community is a new frontier for the self and community. To this they add that the Internet, as it continues the trend toward individuation and privatism specific to other modern media, redefines the meaning of community itself. This is now conceived in terms of weaker ties and a lower threshold of social commitment (Fernback and Thompson 1995). They also concur with Jones' observation that communities are private social choices, rather than ascribed realities. What defines American communities are private needs and individual goals, which produce weaker social ties (Wuthnow 1998).

Drawing on this body of theory we can conclude that those who will be attracted to the new medium the strongest will be those who not only participate in the modernist social game the most, but who also have the fittest social ties for this environment. These will be individuals who have weaker social ties and weaker anchoring to formal and informal social institutions (Wellman 2001).

The present article focuses on the relationship between the transformations in the nature and prevalence of various types of general off-line social arrangements and the social use of the Internet. The discussion focuses on a social institution that was particularly affected by the emergence of "loose connections" in American society: the nuclear family. Our goal is to understand if the transformations in the nature of the North American family have had any consequences on who uses the Internet for social purposes. More specifically, the study tries to understand if the emergence of a large group of singles in America shapes Internet use in one form or another.

The American Social Context in an Era of Social Transformation

The theoretical insights enumerated above suggest that understanding any social transformation related to the Internet should transcend the media effects paradigm and should be connected to more mundane developments in the social fabric of Western and more specifically American society. This is a period in American history when the amount of civic and social involvement is at an all time low (Putnam 2000). More importantly, at the same time, many formal and informal social organisations built around weak ties have proliferated. Wuthnow (1998) has documented the subtle but continuous transformation in the nature of social participation in America, from civic service clubs and organisations to small, low social cost and involvement groups. While the former required firm and long-term commitments, in terms of time, energy and values, the later have lower threshold of participation and involvement. The general trend goes, according to Wuthnow (1998), in the direction of "looser connections," that is, social ties rooted in personal satisfaction and self-fulfilment, which demand lower social involvement.

This transformation is profound and ranges over a wide gamut of social institutions. Among them is the nuclear family (Cherlin 1992; Popenoe 1993). The family is one of the most important formal social organisations, requiring a considerable amount of effort and commitment to be maintained. Redefining the meaning of

commitment and social involvement in the society as a whole has left clear marks on the nature, structure and function of the nuclear family (Myers 2000).

The General Social Survey (GSS) report on family reveals profound and dramatic changes in the marital arrangements of Americans. The most significant is the decline of marriage as a social institution. For example, married households with children, the single largest group in 1972, with 45% of households, represented in 1998 only one quarter of all American households (Smith 1999). In the same year, 1998, single households with no children represented 32% of all households, the largest single marital status group in the nation (Smith 1999). This group has known one of the fastest rates of growth rate in the last 25 years (Myers 2000; Yankelovich 1981), doubling its size.

According to Smith (1999) there are four possible immediate sociological causes for changes in the family structure. First, Americans marry later in life; during the last four decades the median age at first marriage increased from 23 to 27 years for men and from 20 to 25 years for women. Second, the divorce rate has doubled in the same period, from 10 to 20 divorces per 1000 women a year. In 1998, 34% of all married adults have divorced at least once, compared to 17% in 1972. Overall, the probability of a first marriage to end up in divorce is about 50% (Popenoe 2003). Third, although most divorcees under 50 eventually remarry, the time between marriages has increased and second marriages have an even higher rate of divorce than first-time marital unions (Popenoe 2003). Fourth, both the delay in age at first marriage and in remarriage is facilitated by an increase in cohabitation (Bumpass, Sweet and Cherlin 1991; Smith 1999).

All these facts point to a weakening social and material commitment on the part of marriage partners, especially males (Popenoe and Whitehead 2002). This points to a redefinition of marital and sexual unions as a collection of weak-tie, "loose connection" arrangements. Partly, this is the consequence of economic and social forces. As American society has become more complex and the economic structure more flexible, the family has become less and less a necessary economic unit of support (Cherlin 1992; Myers 2000). Yet, Jacques (1998) makes a more direct connection between the revolution in family life and the emergence of a new social and cultural outlook, which he calls post-modern. Families affected by it put a greater emphasis on valuing the autonomy of the marital partners, while the mating game and the family dynamic emphasise pleasure and enjoyment (Jacques 1998).

In consequence, marriage is conceived in terms of weak not strong ties, whose main role is to promote the individual self-fulfilment of the partners (Cherlin 1992). This puts the interests of the family as a unit on second place, after personal satisfaction. As early as 1981, two-thirds of Americans agreed with the statement that "parents should be free to live their own lives even if it means spending less time with their children" and that parents have the right to live well now "even if it means leaving less to the children" (Yankelovich 1981, 74). Some 82% of Americans agreed in 1985 that "parents who don't get along should not stay together because there are children in the family," compared to the 51% who agreed with this statement in 1951 (Myers 2000). Overall, the decline of the family is the combined effect of lower commitment and higher valuation of personal autonomy.

Decline in personal commitment, emphasis on autonomy and their consequences – increased rate of divorce and a greater number of singles – are only

specific manifestations of a deeper process in American society. They are part of the trend mentioned above, when talking about the expectations raised by the Internet "revolution." In essence, both on-line social expectations and off-line social ties are part of the more general paradigm shift that emphasises autonomy and which rejects the right of reference groups to define one's identity and life course. These are quite similar phenomena and part of the same "modern syndrome" described by Jones (1997) and Fernback and Thompspon (1995). Thus, taking a social shaping of technology perspective, we might conclude that the changes in the American social and cultural structure should be recognisable in the "virtual community" social vision. The assumption is that the Americans that find themselves in weak-tie situations, such as those who are not married (single), will find germane the promises of on-line social interaction, where participation is optional, exit and entry barriers are low, and identity is purportedly flexible.

It is not clear, however, if their stronger interest in the medium will translate into actual social relationships. In fact, following the perspective proposing that off-line social forces impinge on the way in which on-line social visions and bonds take shape, it might be that the strong connectors off-line (married individuals) are those who will benefit the most from on-line social ties because the two sets of relationships seem to overlap to a great extent.

A number of studies, although not looking at marital relationships directly, have shown that the Internet is used to facilitate people's pre-existent and real life social ties. A Pew study revealed that Internet connectors use the medium to maintain and reinforce their existing, off-line social network and preferences (Rainie and Kohut 2000). The Syntopia project concluded that most experienced Internet users maintain stronger connections with their friends and families, are more likely to be members of community organisations and to get involved in community affairs (Katz, Rice and Aspden 2001). Other researchers have shown that depressed and lonely people off-line remain depressed and lonely on-line (Cody et al. 1997). A study conducted in a Toronto neighbourhood intensely connected to the Internet found that Internet-access households are more likely to establish both strong and weak social ties in the neighbourhood (Hampton and Wellman 2000). More importantly, the same research concluded that connected residents know three times as many local residents, talk with twice as many, and are more likely to invite their neighbours to their homes than their non-Internet connected neighbours (Hampton and Wellman 2000).

How will the Internet affect the social lives of those found in strong (married) or "loose" (single) social ties arrangements? The social pay-offs for singles and married individuals, when using the Internet to bond with other people, will probably be quite different. If the Internet has a "magnifying glass" effect, then married individuals should be more successful at enhancing their array of social ties on-line because they have a larger social base off-line to build upon. Singles, whose social ties off-line are rather weak will probably benefit less from their on-line connections. A further supposition might be that since singles do not have the social capital or commitment necessary to participate in social life to the same extent married individuals have, they will try to compensate for this on-line. In the end, this discussion can be summarised as follows: social bonds in cyberspace will be mediated by one's social situation in the off-line world.

Hypotheses and Methods

Up to this point I argued that the Internet emerges as a social space at a time of resurgence of weak-ties and “loose connections.” Important themes of discourse about the social potential of computer-mediated communication emphasise autonomy, freedom to redefine one’s identity, and flexible social ties. Incidentally, these are part of the transformation that has led to the increase in the number of singles in American society. A way to link changes in the American social structure to developments on the Internet would be to look at the different way in which singles and married people imagine and use the medium for social purposes.

The first hypothesis, following the demonstration presented above, proposes that singles should value the idea of using the Internet for social interaction more, since the current discourse about the Internet’s ability to allow weak-ties relationships, personal expressivity and identity shifting are so much more in accord with the social circumstances of being single, which equally value autonomy and flexibility. Thus, the first hypothesis states that:

H1: Singles are more attracted by the social promises of the Internet than married people.

However, as argued above, the search for social ties on the Internet and being actually successful in establishing lasting bonds through new communication technologies are not the same things. The Internet can enhance social activity if people have pre-existing strong-tie social networks (Hampton and Wellman 2000; Wellman et al. 2001). In order to measure what appears to be a “magnifying glass” effect of the Internet – that is, its ability to reinforce existing social structures, rather than to dismantle them – one has to look at Internet users’ on-line and off-line social connections simultaneously. Since we are trying to learn not only if there is a connection between social networks in reality and on-line, but also if there is a displacement of real by virtual communities, the analysis will test the effect of connections to on-line groups on connection to people living in real communities.

Based on the assumption expressed in the theoretical discussion, that people who are married are more likely to be connected to the social context, we will expect that this group will have stronger connections both on and off-line:

H2: Higher likelihood of making personal connections on-line increases the number of personal friends in real life and is greater for married people.

Datasets and Research Strategy

The dataset used in this paper ($N=1812$) was collected in Los Angeles by a group of faculty and graduate students at University of Southern California, working for the Metamorphosis project, lead by the Principal Investigator, Professor Sandra Ball-Rokeach. The data was obtained using a spatially-focused random digit dialling survey of seven different ethnically marked Los Angeles neighbourhoods, whose representative ethnicities constitute 90% of the city population (Matei et al. 2001). One ethnic group was selected from each of the following Los Angeles residential areas: Westside, White, plurality of Jewish-origin residents; Crenshaw, African-American residents; East Los Angeles, Mexican-American residents; Pico-Union, Central-American residents; Koreatown, Korean; South Pasadena, White Anglo-Saxon residents; Alhambra-Monterey-Park, Chinese origin residents (Matei et al. 2001). The response rate for the Metamorphosis survey was 31%, which al-

though low and displaying the usual biases (toward female and older respondents), specific to phone surveys, still provides samples that are close to the general population of the neighbourhoods surveyed, as demonstrated by comparing key sample statistics with population parameters provided by the Census Bureau (Matei et al. 2001).

Measures

To refresh the point made in the literature review and in the hypothesis section, people more likely to believe in the social virtues of Internet communication (its ability to foster new friendships and social relationships) are also more likely to be disconnected from the larger social environment, more specifically to be single. Yet, they will be less successful in their quest for social ties, both on-line and off-line, than married people.

Single marital status includes, for the purposes of this study, all respondents not formally married, while the “married” category also includes the small number of people who indicate that they “live with a partner.”

To test the proposition that singles are more likely to perceive the Internet as a good social interaction medium, we measured the effect of marital status on likelihood of answering “yes” to the question: Are social reasons, like making new friends, one of the goals you use the Internet for? The respondents had the choice to indicate if this is true or not, alongside other options (to stay on top of events, to express yourself, etc.). About 10% of the respondents believe that they participate in on-line activities for social reasons.

The second analysis looks at the role played by marital status in mediating the relationship between on-line and off-line ties. For real life relationships, the question was formulated as: “how many neighbours do you know well enough to talk with them about a personal problem?” ($M=1.40$, $SD=2.83$). The variable was skewed left, a few respondents indicating an inordinate number of social connections. Upon analysing the histogram it was decided to normalise the variable by capping it at 5 (values greater than five were recoded as 5).

Social connectedness on-line was measured slightly differently, asking “have you ever met someone on-line that you consider a personal friend?” (19.6% respondents answered “yes”).

Analysis

Hypothesis 1 proposes that singles are more attracted by the social promises of the Internet than married people. Logistic regression analysis confirms the hypothesis, indicating that singles have 123% greater odds of declaring that their main goal for using the Internet are social reasons (including making new friends) than people who are married or who live with a partner (Model $df=1671$, $\chi^2=71.25$, $df=5$, $p<.01$. Marital status (single) $B=.80$, $SE=.28$, $Wald=8.37$, $p<.01$, $\exp(B)=2.23$). The logistic regression model includes basic socio-demographic controls: education, age, gender and generation of immigration to United States.

The second hypothesis (H2) proposes that personal connections in real and virtual spaces are interlocked and that singles are expected to have weaker social ties on and off-line. An analysis of variance (ANOVA) was performed using the Metamorphosis dataset.

The ANOVA model uses number of neighbours known in real neighbourhood to talk about a personal problem as dependent variable; has made or not a personal on-line friend and single versus married status as factors. The ANOVA model also includes, for control purposes education, age, gender and generation of immigration to United States.

As seen in Figure 1 and Table 1, the results support the hypothesis. Although both singles and married people who have met someone on-line they consider a personal friend are more likely to have friends in real neighbourhood (see Table 1 for means), singles are less likely to have personal friends in reality both when they have or when they haven't met someone on-line. This is further strengthened by the fact that presence of on-line social ties boosts far more the married people's chances of knowing people off-line, indicating an interaction effect between marital status and personal ties on-line, which is statistically significant $F(1, 335)=5.8, p<.05$.

Figure 1. The Role of Marital Status in Mediating the Relationship Between Real and Virtual Social Personal Connections

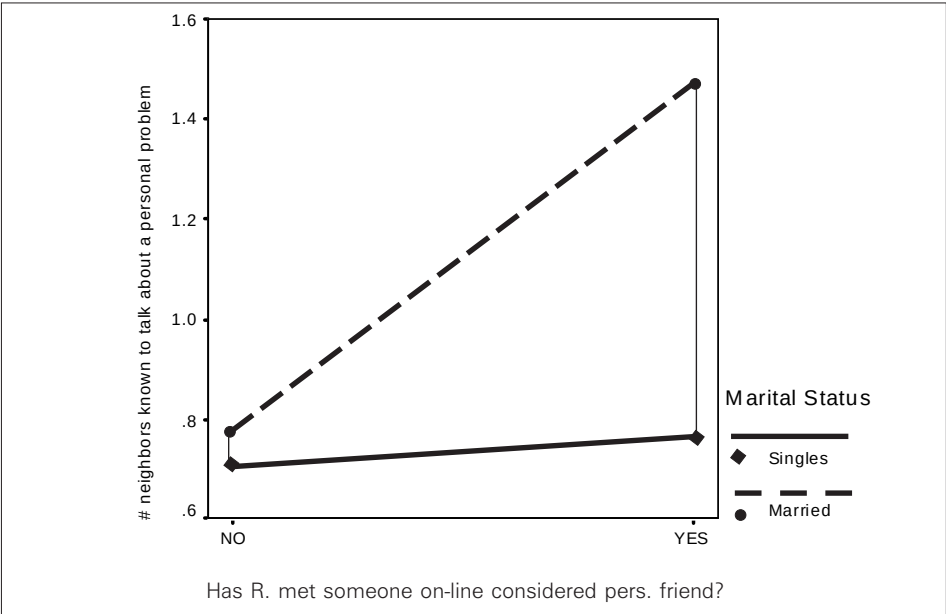


Table 1. Marginal Means for Number of Neighbors Known in Community to Talk About a Personal Problem

		Mean	Std. Error
Singles	Has not made a friend on-line	.70	.08
	Has made friend on-line	.76	.14
Married	Has not made a friend on-line	.77	.10
	Has made friend on-line	1.47	.20

Variables evaluated at covariates appeared in the model: Current age, $\underline{M}$ = 32.46; Educational level, $\underline{M}$ = Some college; Generation in the US, $\underline{M}$ = 3 generations; Gender = 54% male.

Conclusions and Discussion

The main goal of this paper was to investigate the relationship between connectedness to real and virtual spaces and the role of marital status – used as an indicator of emergence of weaker social ties in American society – in mediating it. The empirical findings presented above suggest that:

1. Singles are more likely to believe in the social potential of the Internet.
2. Having personal connections on-line is associated with having personal connections in one's physical community and married people have more connections both in reality and in cyberspace.
3. Married people who have made a friend on-line have the most numerous personal ties in the neighbourhood.

Based on this evidence, the more general conclusion is that integration of Internet technologies in social life is steered by off-line social contexts. Those whose social contexts are characterised by weak-ties and low commitment (singles) will instinctively see the Internet as a social opportunity. Yet, they will be far less successful in taking advantage of this opportunity than married individuals, whose connections off-line increase in density with likelihood of making friends on-line. Married individuals are the ones more likely to be affected by what appears to be the Internet's magnifying glass effect; their strong personal bonds are strengthened by the Internet. This is most clearly demonstrated by the interaction between marital status and on-line social ties. Singles who have made a friend on-line are far less likely to know people in the neighbourhood than married people with the same level of on-line participation.

A number of caveats and qualifications should be added to the picture, to make it complete. Using single marital status as an indicator of larger societal trends rests on an undeniable fact. Single marital status is the largest and fastest growing marital group in the US. Its growth was spurred by higher rates of divorce and replacement of marriage with weaker social arrangements, such as cohabitation. The sociological literature reviewed (Cherlin 1992; Myers 2000; Smith 1999; Wuthnow 1998) clearly indicates that the increase in the number of singles was associated in time and hastened by the general decline in social commitment to many other types of social institutions, formal and informal (e.g. political parties and civic organisations). These facts are all indicative of a trend toward social arrangements resting on increasingly autonomous individuals, connected to each other by weaker, looser connections. However, although singles are more emblematic and probably deeper affected by these processes, they are not the only ones. Married people can also be affected by them. Many of them can also be engaged in "loose connections" either at home or outside the home. Single and married individuals live, after all, in the same society and are both involved in the social process that lead to "loose connections." However, it is important to note that this study is conducted using probabilistic methods. That is, we consider singles as better representatives of the trend toward "looser connections" not because they are *uniquely*, but because they are *more likely* and in *greatest numbers and degree* affected by it. When we suggest that singles have a lower level of commitment and weaker social ties, this is done in relative, not absolute terms.

Also, the study does not offer an explanation for the initial cause that has produced the trend toward lesser commitment and looser connections. Sociologists

and political scientists are still debating the issue. Some of them find fault with the social and economic arrangements of the last several decades, which have forced people to move often and isolate themselves in residential enclaves, in search of material prosperity and status. Others point to the profound transformations in the American ethos, which is less interested in service and social participation and more fascinated by exploring the unknown territory of the self. These are all fascinating issues, which this paper did not propose to solve, but only to use as a background for our specific discussion about the social use of the Internet in everyday life.

In this context, it is worth repeating that one of the main aims of the paper is to prove the utility of studying the social effects of the Internet starting from the social context in which the medium is used rather than from its technical characteristics. Beside its more concrete findings, the study demonstrates that a communication technology research agenda emphasising the *social shaping* rather than the *social effects* of the Internet could be a very productive and useful enterprise.

The Metamorphosis study, which has provided the dataset used to test the core hypotheses of this paper, reflects an urban-metropolitan reality. Also, the relationship between social interaction in real spaces and in on-line groups uncovered here proposes a new way of looking at communication technology. The results should be considered tentative and incomplete until are further confirmed by other studies, conducted on larger nationally representative datasets.

Further research of the relationship between on-line and off-line social ties will certainly enrich our knowledge about the role of the Internet in American social life. It will be especially fruitful if more studies taking a social shaping of technology perspective will emerge. As the findings of this research seem to indicate, this is a productive line of inquiry, which can create a much-needed bridge between the study of real communities and on-line environments, until now observed in isolation.

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Note:

1. The Internet is used here and throughout the rest of the article as shorthand for those computer-mediated communication tools that are dedicated to social bonding. These include newsgroups, bulletin boards and "web groups" (Yahoo! Groups), chat facilities and other types of many-to-many communication.

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