Meeting Online: The Rise of the Internet as a Social Intermediary

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Abstract

This paper explores ways in which the Internet is changing the market for romantic dating in the US. I utilize a new dataset, the How Couples Meet and Stay Together (HCMST) survey, Wave I. HCMST is a nationally representative study of American adults. Findings show a substantial difference between couple types in how couples met, with heterosexual couples relying more on social ties through family and friends, and same-sex couples relying more on the Internet. For all couple types, reliance on the Internet to meet romantic partners has been rising sharply in recent years, displacing neighborhood, family, and the workplace as venues for meeting partners.

Introduction and Motivation:

One of the fundamental questions about a new technology era, such as the modern Internet age, is how the new technology may reshape basic aspects of our social lives. Some scholars see the Internet as fundamentally reshaping our social lives (Wellman 2001; boyd and Ellison 2008). Other scholars see the Internet as merely reinforcing social connections and hierarchies that already exist (Putnam 2000; Calhoun 1998; DiMaggio et al. 2001).

The telephone, for example, is supposed to have increased Americans' abilities to stay in touch with their already existing circle of friends and family, but the telephone apparently did little to change *who* Americans were in touch with (Fischer 1994). Robert Putnam, who is highly skeptical of the Internet's ability to replace traditional social foci such as family and neighborhood, argues that the Internet will (like the telephone) simply provide a better means of keeping in touch with our pre-existing and ever-shrinking social networks (Putnam 2000 p.179).

The current interest in how the Internet might affect social life recalls the fundamental concern of early sociologists in determining how industrialization and urbanization were affecting social life in the late 18th and early 19th centuries. One of the central questions was how our important sense of neighborhood and local social ties might be destroyed by immigration away from the countryside and into the city. Research in the early and mid 20th century (Kennedy 1943; Davie and Reeves 1939; Clarke 1952; Bossard 1932; Marches and Turbeville 1953) discovered that people chose mates who lived close to them in the city, which was a key empirical result demonstrating that the city neighborhood *was* a community. The typical finding was that 30 percent of marriage licenses were granted to couples who lived within

roughly 5 blocks of each other, despite the low frequency of premarital cohabitation. As Bossard (1932 p.222) wrote, "Cupid may have wings, but apparently they are not adapted for long flights."

The literature on mate selection and residential propinquity in the US (Bossard 1932; Kennedy 1943; Clarke 1952) predates the Internet, and dates back to a time in American life before the independent life stage (Rosenfeld 2007), that is before young adults were attending college, traveling and postponing marriage. The literature on mate selection and propinquity made the simple assumption (which was appropriate at the time but is no longer appropriate) that the transition from young adulthood to marriage was simple and straightforward. Young adults in the post-1960 period are exposed before they marry to not one but several different communities: the community of origin (with its embedded secondary school), the college community, the online community of social networks of prior friends and their friends, the corporate work environment, the disparate communities they experience while traveling abroad, the urban neighborhood to which they may relocate for college or for work, and the potential networks of like-minded, or similarly interested persons who may be found online.

Although recent studies on how couples meet have been done in France and Holland (Bozon and Heran 1989; Kalmijn and Flap 2001), these studies use data that predates the recent era of Internet dating and social networking. Even less is known about the process of how couples meet in the US.

Data and Methods I: The Survey

This paper presents preliminary findings from wave I of the "How Couples Meet and Stay Together" (HCMST) survey (Rosenfeld and Thomas 2009). "How Couples Meet and Stay

Together" is a nationally representative survey of 4,002 adults, of whom 3,009 had a spouse or romantic partner. Response rate to the survey was 71%. The results below focus on the 3,009 partnered adults. Sociodemographic information about respondents was already known, and was appended to the file. Data, codebooks, frequencies and documentation are publicly available at http://data.stanford.edu/hcmst.

Respondents who previously had answered "yes" to the question "Are you yourself gay, lesbian, or bisexual?" were oversampled for the HMCST survey. Of the 3,009 partnered adults in the survey, 672 were individuals in the oversampled gay, lesbian, or bisexual (GLB) category. The oversampling rate was 7.8 times for the GLB category, or 6.4 times once weights for other demographic factors are taken into account. Of the 672 previously identified GLB adults with partners, 457 reported same-sex partners, and 215 reported different sex (heterosexual) partners. An additional 17 adults who had refused or answered "No" to the prior question about sexual identity reported that their main romantic partner was a same-sex partner yielding a total of 457+17=474 same-sex couples. The HCMST main survey asked separate questions about sexual identity, sexual attraction, and gender of the partner. In this paper I am primarily concerned with comparing same-sex couples (i.e. couples comprised of two women, or couples comprised of two men) to different-sex couples (i.e. male-female couples), regardless of the sexual identidy or gender sexual preference of the respondent.

The HCMST survey is an Internet survey, implemented by Knowledge Networks (KN) which means that respondents answer the questions online, at their leisure. KN panel participants are initially recruited into the panel through a nationally representative random digit dialing telephone survey, so the sample is nationally representative (Couper 2000; Tourangeau 2004). Respondents who don't have Internet access at home are offered Internet access and a WebTV in

exchange for participating regularly in surveys. Research on survey modes has shown that Internet surveys have substantial advantages in allowing respondents to answer questions at the time and pace most convenient to them (Fricker et al. 2005; Krosnick 1991). Comparisons of KN surveys with more traditional survey modes have shown performance by KN that equals the best existing survey modes (Schlenger et al. 2002; Berrens et al. 2003).

Other available datasets such as the CPS, NSFH, NSFG, NHSLS, and Add Health[1] provide a wealth of information about marriage, cohabitation, and divorce in the general case, but the existing data provide poor coverage of less traditional family types, such as interracial couples and same-sex unions. Because the less-traditional family types generally constitute a small percentage of all families, most surveys which do not oversample the less traditional couples have insufficient samples of less traditional couples.

[Table 1 here]

The Results

Table 1 shows weighted summary statistics for the HCMST survey wave I, by couple type. The average age is highest (48.4 years) for adults who are in heterosexual marriages. Heterosexual married couples have been together the longest, and have known each other for longer than other types of couples (more than 20 years on average).

Consistent with previous findings (Rosenfeld and Kim 2005), men and women in traditional different-sex marriages have the lowest rates of interraciality and the lowest rates of inter-religious unions. Gay men are most likely to have partners of a different race (23.0

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[1] In order, Current Population Survey, National Survey of Families and Households, National Survey of Family Growth, National Health and Social Life Survey, and National Longitudinal Study of Adolescent Health.

percent). Rates of inter-religious unions are similar for same-sex couples and for unmarried different-sex couples.

By several measures of connection to family origins, same-sex couples are substantially more detached from their families of origin than are different-sex couples. The percentage of parents who are reported to approve of the couple varies widely by couple type. Ninety four percent of adults in a heterosexual marriage report that their parents approve of their spouse. For same-sex couples the rate of parental approval is substantially lower, 56.8% for partnered gay men, and 59.2% for partnered lesbians. For partnered gay men who live with their partners, parental approval is a substantially higher 74.6% (not shown on Table 1). If we assume that live-in partners are more likely to be known to parents than are non-coresident partners, this suggests that some of the lack of parental approval for gay men and their partners might be due to closeted or short-term relationships that are unknown to the parents. For lesbians, parental approval remains low regardless of couple coresidence. Despite large differences in parental approval, adults with same-sex partners see a similar number of relatives each month, compared to adults with different-sex partners.

In HCMST, geographic mobility is measured in miles from the town the respondent grew up in to the ZIP code they currently reside in. Among adults with different-sex partners, geographic mobility tends to be larger for married than for unmarried couples because the married adults are older and have higher incomes. The median adult with an unmarried different sex partner lives only 10 miles from where they were raised. Married adults with different sex partners live a median distance of 50 miles from where they were raised. Gay men live a median of 150 miles from where they were raised.

[Figure 1 here]

How Couples Meet

Figure 1 shows the changing pattern, smoothed by local lowess regressions (Cleveland 1979), of how different-sex couples met over time in the US. For most of the period under study, meeting through friends was the most common way respondents met their partners. The percentage of different-sex couples whose first meeting was brokered by friends rose from about 20% in 1940 to almost 40% in 1990, before going into decline and dipping below 30% for the most recently formed couples. The pattern of couples meeting through or as coworkers is similar to the pattern of meeting through friends (though coworkers have always been less influential than friends), with a steady rise from 1940 and a peak around 1990 (at about 20%), followed by a steep decline after 1990.

According to Figure 1, several of the most traditional ways of meeting partners had monotonic declines from 1940 to 2009. Meeting through family was actually the most common way that elderly respondents who met almost 70 years prior to the survey in 2009 recalled meeting. By the early 1940s family had already been overtaken by friends as the primary way male-female couples met, and steady decline of family as a broker in relationship formation in the US has continued over 7 decades, declining from 25% of all male-female couples who met in 1940 to less than 10% of male-female couples who first met in 2007-2009. The decline of family of origin as a relationship broker in the late 20th century U.S. is consistent with the reported decline of parental control over young adults that for the same historical period (Rosenfeld 2007).

Along with the steady decline of family of origin as a relationship broker, primary and secondary school declined monotonically as a first meeting place for couples that eventually become romantically involved, from 22% of relationships in the late 1930s to less than 5% most recently. As Americans marry later and as the independent life stage of young adulthood has involved more Americans (Rosenfeld 2007), the social world of primary and secondary school has come to have much less lasting impact.

As family and grade school have become less influential in the mate selection process in the U.S., so too have residential neighborhoods and the church declined as well in their influence over the market for romantic partners. The declines of neighborhood and church are not as monotonic as the declines for family and grade school. From about 1960 to 1990, Figure 1 shows that neighborhood and church had a roughly steady influence over how couples met, with about 11% of (male-female) couples meeting as neighbors and about 8% meeting in or through houses of worship. After 2000, neighborhood and church went in to steep decline along with most of the other traditional ways of meeting romantic partners.

The Internet is the one social arena that is unambiguously gaining in importance over time as a place couples meet.[2] For couples who met in 1980 and before, the percentage who met online was essentially zero. Between 1980 and 2009, there was exponential growth in the proportion of respondents who met their partners online. For couples who met in the two years prior to the HCMST survey, the Internet was the second most likely way of meeting (just under 30%), after the intermediation of friends. With the meteoric rise of the Internet as a way couples meet in the past few years, and the concomitant recent decline in the central role of friends, it is possible that in the next several years the Internet could eclipse friends as the most influential

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[2] Bars and Restaurants showed some growth in the most recent years. Most of the increase in bars and restaurants and other public entertainment places is secondary to the growth of the Internet; couples who first meet online need a safe place to have a first face-to-face meeting, and the restaurants and bars provide this safe neutral meeting place.

way Americans meet their romantic partners, displacing friends out of the top position for the first time since the early 1940s.

Ninety-six percent of the couples in HCMST are either married or are unmarried couples with intimate physical relationships. The relationships, in other words, are not virtual or online-only relationships. By meeting online, or meeting through the Internet, I mean that the couple's relationship began with an online interaction, and then developed into a personal and physical relationship. Online meetings include meeting through web dating sites, through Internet classifieds, through online chat, through social networking websites, and through other types of online communications. If the couple had first met decades earlier, fell out of touch, then rediscovered each other through Facebook, that would be "meeting online" for our purposes, because the online interaction brokered the romantic relationship. Many couples who first meet and develop their relationship offline also communicate online, and those couples are *not* counted as meeting through the Internet.

The HCMST survey is thus far only a single wave cross-sectional survey; follow up surveys will be fielded in spring 2010 and spring 2011. If couple longevity depends on how couples meet, for instance if couples who met through family have greater longevity as a couple, this might also produce a pattern similar to the pattern in Figure 1 in which the percentage who met through family is lowest among the most recent couples and is highest among couples who met furthest in the past. In other words, it may not be possible to be certain, from a single cross-sectional survey, whether the apparent decline in various modes of meeting (through family, through workplace, through residential neighborhoods) is real, or whether these patterns are an artifact of differences in couple dissolution rates.

[Table 2 here]

Assessing the Possibility of Couple Dissolution Bias:

If couples that meet through family connections (or through the neighborhood, or in the office) stay together longer, that could partly explain the apparent decline over time in meeting through family (or meeting in the neighborhood, or in the office). One way to assess whether couples who have met originally through family, through the neighborhood, or in the office are likely to have longer couple longevity is to examine whether the respondent's reported relationship quality varies by how they met their partners. Table 3 shows clearly that relationship quality does not seem to depend on how the couple met. The average relationship quality (on a scale of 1-5 with 5 being "excellent" and 1 being "very poor"[3]) is 4.47 for all couples (with a standard deviation of 0.75). Couples who met through family connections have a slightly lower reported mean relationship quality of 4.41, and couples who met online have a slightly higher mean relationship quality of 4.48, but none of the differences are statistically significant. In order to explain the patterns in Figure 1, relationship quality would have to be much *higher* for couples meeting through family than for couples meeting online.

Controlling for other factors, including relationship duration, race, coresidence, and parental approval does nothing to change the fact that relationship satisfaction appears to be unrelated to how a couple met (results available from the author). The lack of correlation between self-reported relationship quality and how couples met is evidence against the

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[3] The variable relationship quality is based on variable q34 of the HCMST main survey, with the scale reversed so that higher scores mean better quality.

possibility of couple dissolution bias by how couples meet.[4] Table 2 suggests, therefore, that the patterns of change in how couples meet observable in Figure 1 may in fact be real changes over time in the pattern of how couples meet, and not the product of couple dissolution bias.

[Table 3 Here]

Table 3 presents a further effort to assess whether the way couples meet has changed over time. Table 3 compares the results from the 2009 HCMST to the results from an identically worded question from the 1992 National Health and Social Life Survey (NHSLS). Columns 1 and 2 compare the two surveys, for adult respondents, reporting on how they met their current (for HCMST) or most recent (in the case of NHSLS) cohabiting spouse or unmarried cohabiting partner. The comparison of NHSLS and HCMST is consistent with Figure 1 in several important respects. First, the percentage of respondents who were introduced to their spouse or partner through family was 15.6% in 1992, and declined significantly to 12.4% in 2009. Second, the percentage of respondents who were introduced to their partner or spouse by classmates also declined, from 7.3% in 1992 to 4.9% in 2009. The declining influence of family and classmates continues into column 3, which represents the subset of respondents from HCMST who met their partner within 10 years prior to the HCMST main survey.

According to Table 3, the percentage of respondents who met their partners through co-workers or neighbors may appear to have gone up between 1992 and 2009, but these trends disappear when comparing the 1992 NHSLS data to the 2009 HCMST respondents who met their partners within 10 years of the HCMST wave 1 survey. It is important to remember that the

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[4] There are other factors which do have an important effect on relationship quality, for instance parental approval of the respondent's relationship, respondent race (black respondents report lower relationship quality), and religious differences (respondents in interreligious relationships report lower relationship quality).

average couple in HCMST met 20 years prior to the survey in 2009 (see Table 1), meaning the average couple in HCMST met in the late 1980s, or early 1990s. Prevalence samples of couples, such as HCMST and NHSLS are necessarily windows into the past. If the 1992 NHSLS sample met an average of 20 years before 1992,[5] that would mean the average couple in the NHSLS met in the early 1970s.

To the extent that the Internet may have displaced some other traditional ways of meeting romantic partners, this change would be somewhat masked in the comparison between NHSLS (Table 3, column 1) and HCMST (Table 3, column 2) because all of the NHSLS and most of the HCMST couples met before the Internet became influential. The last column, the HCMST respondents who met their partners within 10 years prior to 2009, includes only couples that were formed during the Internet age. What we see in a comparison of the HCMST couples formed during the Internet age, and the 1992 NHSLS is a sharp rise in percentage of respondents who introduced themselves to their partner (from 31.7% to 44.2%) and a sharp decline in the percentage of respondents who were introduced to their partners by friends, by family, or by neighbors.[6] These trends over time in how couples meet derived from comparing the 1992 NHSLS and the 2009 HCMST are consistent with what we observe in Figure 1, and the comparison of the first two columns of Table 3 presumably negates the effect of couple dissolution bias since both samples contain couples covering the full range of couple longevity.

[Table 4 here]

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[5] NHSLS does not provide data on when the respondents first met their current or most recent partners.
[6] The rise in responses who selected "Other" as an answer to the question could be, in part, a function of the different survey methodologies employed. NHSLS was a face-to-face survey, and the survey takers may have discouraged "other" as an insufficiently specific answer.

How Couples Meet, by Couple Type

Table 4 shows substantial differences in how couples met, by couple type. The results in Table 4 are derived from an open-text question, q24 in the HCMST survey, "How did you first meet partner_name." The unstructured text answers were coded independently by 3 coders, and then final codes were based on a reconciliation of the independent codes (see website documentation for more details).

The most common way heterosexual Americans meet their spouses and partners is through their friends. Between 35% and 40% of American adults with different sex partners met their partner through the intermediation of either their own friends or their partners' friends. The percentages for all categories of "how couples meet" don't add up to 100 percent because the categories overlap and most respondents mention several categories. Same-sex couples are less likely to have met through friends, with 19.7% of gay men and 26.0% of lesbians reporting having met through friends.

Table 1 showed that adults in same-sex unions have, by some measures, weaker ties to their families of origin. Table 4 shows that adults with same-sex partners are much less likely to have met their partner through the intermediation of family. If we examine the second row of Table 4, we see that 0.1% of partnered gay men and only 7.7% of partnered lesbians report that they met their current partner through a family connection, whereas 22% of women married to men and 17.4% of men married to women met their spouse through a family tie. If we limit the family ties only to the respondent's own family (see row 3 of Table 4), the difference between same-sex couples and different-sex couples is even more dramatic, with less than 1% of lesbian women and gay men reporting that they met their current partner through their own family.

Social and geographic distance from the family of origin is one of the fundamental factors in same-sex couple formation (Rosenfeld 2007; Bérubé 1990; Weston 1991).

If friends and family, two mainstays of the social world, play less of a role for gays and lesbians than for heterosexual adults, what other social contexts or avenues or groups make up the difference? Table 4 shows that same-sex couples have a remarkably higher rate of meeting through the Internet, 27.3% for gay men and 24.1% for lesbian adults, compared to less than 5% for married heterosexual adults. Some part of the difference is due to age and length of relationships. The average heterosexual married couple met more than 24 years prior to the 2009 HCMST survey, i.e. 1985. The Internet is the sum of many technological innovations which had hardly any functional utility and certainly less broad penetration in 1985 compared to 2009. Same-sex couples have relationships that are of more recent initiation than the relationships of different-sex married couples, so it is perhaps not surprising that same-sex couples have a higher likelihood of having met online. In order to see if the Internet is used differentially by different types of couples, we must control for when the couple met (see below).

[Table 5 here]

How Couples Meet, by Couple Type, Part II

Literature on mate selection has always assumed that the context of how couples meet was an important determinant of what kinds of couples would exist. The combination of exposure to potential mates and the interference of others (such as one's parents) have always been assumed to have important effects on couple formation (Kalmijn 1998; Blau and Schwartz 1984). While parental interference was always assumed to favor same-race, same-religion,

heterosexual unions (Rosenfeld 2007), hard evidence has been lacking in the past to document the connection between parental involvement and couple type.

I have already shown in this paper that same-sex couples are much more likely than heterosexual couples to meet online, and that same-sex couples are substantially less likely to meet through family. Table 5 shows that the over-representation of same-sex couples among those who meet online, and the under-representation of same-sex couples among those who meet through family, both remain significant even after other factors are accounted for (comparisons are made via a series of logistic regressions). In this section I discuss whether meeting online is associated with other types of nontraditional unions such as interracial unions, interreligious unions, and unions between partners whose parents come from different social classes.

According to Table 5, interracial couples are slightly less likely than same-race couples to have met online (18% compared to 20%), but the difference is not statistically significant. Interracial couples are significantly less likely to have met through family connections (13.4% compared to 18.7%), and that difference remains significant after controlling for age and how long ago the couple first met.

Like same-sex couples, interreligious couples (most of which are unions between people raised as Protestants and people raised as Catholics) are over-represented among those who met their partners online (23% met online compared to 16% for same-religion couples), and interreligious couples are underrepresented among those who met their partners through family connections 15.8% met through family connections compared to 19.5% for same-religion couples). Partners from different class backgrounds (indicated by respondent's mother and partner's mothers' educations differing by 4 years or more) are no more or less likely to meet

online, and only slightly less likely to meet through family connections (and this difference is not statistically significant).

The Rise of the Internet as a Way of Meeting Partners, Part II

Table 6 shows the rise the Internet as a way to meet partners over time in the U.S. For couples who met within 2 years prior to HCMST Wave I survey in the winter of 2009 (that is for couples who first met in 2007-2009), 23.4% of the different sex couples, and an even more striking 61% of the same-sex couples met online. Of the 170 million partnered adults in the US at the time of the survey, 11.8%, or 20.1 million individuals first met their partners during 2007-2009 (within two years of the HCMST Wave I survey).

Even with the oversampling of self-reported GLB adults in the survey, there are still substantially more different-sex couples than same-sex couples in the data (adults with a same-sex main partner are 15.6% of the unweighted dataset and 1.8% of the weighted US partnered adult population). The smaller sample size of same-sex couples in the dataset (only 72 same-sex couples in the dataset met within 2 years of the survey) means that measures of meeting through the Internet are subject to more noise and wider confidence intervals for the same-sex compared to the different-sex couples. Note how, in Table 6, the percent of different-sex couples who met online rises monotonically from 0.2% for couples who met at least 31[7] years prior to the survey to 23.4 percent for the most recent couples. For same-sex couples, who have smaller sample size, the measure of Internet meeting is noisier and does not rise monotonically. The 95% confidence interval for online meeting for same-sex couples who met in the last two years would be 53% to

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[7] The date of first meeting is not necessarily the time when the Internet was used to bring the couple together. In some cases people meet their partners, subsequently fall out of touch for years, and rekindle a romance years later. So it is possible for couples who first met before the Internet existed to have used the Internet to make themselves a couple.

79%, with a mean of 61%. Different-sex couples, with their larger sample size, have narrower

confidence intervals.

The rise of the Internet as a virtual community with its own rules (Correll 1995), entirely

outside of traditional family supervision and the historical constraints of geographic propinquity

constitute a special benefit for certain individuals. Individuals are especially likely to find the

Internet useful if they are seeking harder to find types of partners (Schwartz and Graf 2009) or if

they are seeking relationships that may be subject to some social stigma or parental disapproval

Does the KN Survey over-estimate Internet meeting?

The KN survey is an online survey, which means all respondents filled out the survey

over the Internet. Might the KN survey methodology lead to an over-estimate of how many

couples in the US rely on the Internet to meet their partners? The answer is possibly yes, but

probably not by very much. It is important to remember that individuals are recruited to the KN

panel over the phone. Of the 3,009 partnered adults in the HCMST survey, 68% had Internet

access at home before they joined the KN panel. This is statistically indistinguishable from the

65% of American households who had Internet access at home in 2009, according to the latest

data from the Current Population Survey. Research on the KN panel has shown that households

that join the KN panel and are given a WebTV to take surveys, do not change their other Internet

usage very much (Dennis, Callegaro and DiSogra 2009). Within the HCMST survey, the 68% of

respondents who already had Internet access at home (prior to joining the KN panel) are the

respondents who are over-represented among those who met their partners online. Only 3% of

the respondents who did not have Internet access at home prior to joining the KN panel report

meeting their partner online, compared to 9% of those who did have prior Internet access. For

couples who met within the two years prior to the HCMST survey, the period during which

respondents may have been part of the KN panel, 27% of those with prior Internet access met

their partners online compared to 20% for respondents who did not have prior Internet access at

home.

One way to estimate a lower bound for percentage of Americans who met their partners

online is to assume that individuals who did not have Internet access at home when they joined

the KN panel would not have (had they not been given Internet access by KN) used the Internet

to meet their partner. These values (see Table 7) are lower, but only modestly lower, than the

values from Table 6. For instance, for respondents who met their partner in the last two years, the

percentage who met online is reduced from 23.4% to 19.2% (for different-sex couples) and from

61% to 54% (for same-sex couples). Assuming that KN respondents who did not have Internet

access at home would not have met their partner online is probably an under-estimate of the real

percentage of respondents who met their partners online, because some people who do not have

Internet access at home do use the Internet from work or from public places that provide Internet

access, such as libraries.

Age and Meeting Online

It might be natural to suppose that most of the people who meet their partners online

would be young. Respondents in their early twenties at the time of the HCMST survey would

have grown up with the Internet, whereas respondents in their 30s and 40s at the time of the

survey would have grown up mostly before the Internet had high penetration in American

households. These assumptions about age and Internet use for meeting partners are not correct.

Table 8 shows that, among heterosexual adults who met their romantic partner within 10 years, the group most likely to have met their partner online is the middle- aged group; persons age 35-44 at the time of the HCMST survey, of which 22.9% met their partner online. The youngest respondents, age 18-24 at the time of the survey, were in fact the least likely to have met their partner online (only 12.6% did so). One reason the young, despite their habituation to Internet use, may not be as likely to have met their partners online is that the young have ample exposure to age-appropriate and educationally-appropriate potential partners in secondary and post-secondary school. Unpartnered middle aged persons, on the other hand, may feel constrained by a lack of appropriate or reasonable partners at work, in the neighborhood, or available through other more traditional settings.

Discussion:

In the golden age of sociological study of how people met their spouses, the 1930s and 1940s, the literature focused on the local neighborhood. In part, the mid-century research on the neighborhood's role in couple formation relieved anxiety about the loss of community in a modernizing and urbanizing world.

In the post-1960 era, many social, demographic, and technical changes have undermined the local community's role as the (presumably) central locus for match making. Young adults are marrying later, traveling more, and gaining more post-secondary education (usually while living away from the neighborhood of origin). In previous work (Rosenfeld 2007), I have described how this independent life stage fosters a rise of interracial and same-sex unions. Data from the HCMST survey show that family, residential neighborhoods, the workplace, and primary schools

have all been declining in importance as places where Americans first meet their romantic partners. The Internet, on the other hand, is rapidly rising as a meeting place for new couples. The Internet is now second only to the community of friends as the arena in which new couples are most likely to meet.

The Internet has several fundamental advantages over the kinds of services for personal advertising and matchmaking that existed in the pre-Internet era. The first fundamental advantage of the Internet is *search*. If one put an ad in a newspaper or magazine looking for a mate or partner, the desired mate or partner would have to come across that specific issue of the newspaper or magazine. In the Internet era, one person with minimal effort can search across thousands or even millions of individual personal ads.

The efficiencies of Internet searching are especially important for individuals searching for something uncommon (Schwartz and Graf 2009). Same-sex couples make up less than 2% of all couples in the US, and outside the big cities the percentage would be substantially lower (Rosenfeld 2007; Gates and Ost 2004). It is not surprising, therefore, that gays and lesbians, with a relatively small and difficult to identify target population of interest, would find the search capacities of the Internet to be an even more important resource for identifying potential mates.

In in-depth interviews conducted to supplement the HCMST survey, interviewees explain how the Internet became important in their search for partners. One lesbian woman living in the south had no way that she knew of to find other gay women nearby. She had tried the one gay bar and the one gay church that she knew of, with mostly disappointing results. When she discovered America Online, and realized she could search personal ads in her own ZIP code, she was able to identify a new pool of potential partners that she could not otherwise have met. The gay bar plays a large role in the social history of lesbians and gays in the US (Chauncey 1994;

D'Emilio 1998; Kennedy and Davis 1993), but gay bars were not always safe or pleasant, and the bars inevitably reached only a small percentage of the local gay and lesbian communities. Compared to the gay bar, the Internet provides a substantially safer, potentially more discreet, and more anonymous way to meet people.

Although computer mediated communication lacks the visual cues of face-to-face communication, the asynchronicity of computer mediated communication can provide some advantages as well. Users of Internet dating and social networking sites have greater control over their personal presentation than is usually possible in face-to-face social situations (Hancock, Toma and Ellison 2007; Walther 1996). Adults whose dating preferences require discretion (including those seeking same-sex partners) might be especially advantaged by the greater control the Internet provides.

The third important advantage of the Internet as an intermediary in couple formation relates to the broad and immediate dissemination of personal information. This advantage would be equally beneficial to gay and straight adults. One of the most common stories of couple formation is a first meeting when at least one of the two persons was unavailable, usually because of a relationship with someone else. One of the vital functions of the social network of friends has always been to transmit social news, for instance news that someone who was previously partnered is suddenly available (due to a breakup with their former partner, perhaps). In order for your friends to bring you timely news of the new availability of a person of interest, your friends have to gather the news themselves and they also have to know that you are interested in this person in the first place. The network of friends can be a slow way to get news about the relationship status of others. One of the simple but important aspects of social networking websites such as Facebook, is that individuals broadcast their relationship status

instantly to all their friends and contacts. For one of our interviewees, an attractive and personable straight woman living in California, the first thing she does after a relationship break-up is update her status to "single" on the social networking websites. Within minutes, hundreds of her friends, acquaintances, and friends of friends know that she is single, and she usually does not spend more than a day or two in the single status.

The various social uses and technical capacities of the Internet provide individuals with new resources in the meeting and mating markets. Use of the Internet as a way of meeting romantic partners has been rising sharply in recent years. The Internet seems to be especially important to gays and lesbians, who are less able to rely on friends and especially less able to rely on family connections to meet potential partners. The rise of the Internet as a way of meeting romantic partners in the US is impressive. For all American couples who met within 2007-09 period, online was the second most likely way to meet, after meeting through friends, and ahead of meeting through family, meeting as coworkers, meeting in church, meeting at a bar, and other traditional ways of meeting.

Not only is the Internet growing as an intermediary for meeting romantic partners, but there is substantial evidence that the couples who meet online are different from the couples who meet offline. Couples who meet online are much more likely to be same-sex couples, and somewhat more likely to be from different religious backgrounds. The Internet is not simply a new and more efficient way to keep in touch with our existing networks; rather the Internet is a new kind of social intermediary that may reshape the kinds of partners and relationships we have.

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Table 1: Individual and Couple Characteristics by Couple Type

	men and women in heterosexual marriages	men and women in unmarried heterosexual partnerships	men partnered with men	women partnered with women
Individual attributes				
respondent Age	48.4	39.7	42.6	40.6
pct respondents with college degree	28.8	23.6	42.4	47.1
Couple or household attributes				
Respondent's mean household Income ($2008)	65,700	53,100	69,200	63,000
Pct Interracial	10.8	19.1	23.0	16.8
Pct Interreligious	38.0	47.9	47.2	44.6
Pct Respondents parents (one or both) approve of union	89.6	65.0	56.8	59.2
Mean number of noncoresident relatives that Respondent sees each month	4.3	4.7	4.3	3.5
Median distance moved (in Miles) from the place where respondent was raised	50	10	150	100
Pct of couples that are coresident	94.4	37.5	63.8	79.7
Mean number of children in respondent's household	0.62	0.34	0.11	0.25
Mean how long ago first met (years)	24.6	9.1	11.5	10.4
Mean how long in relationship (years)	23.3	6.7	10.6	9.4
Weighted number of Individuals in the US	119,950,000	46,700,000	1,900,000	1,450,000
unweighted N	1832	703	242	232

Source: From How Couples Meet, Wave I. Respondents are age 19 and higher, weighted with weight2. Averages are weighted. Interracial couples differ among the 5 racial categories (white, black, American Indian/Native American, Asian, Other). Interreligious couples differ among the 5 religious categories (Protestant, Catholic, Jewish, Other, and non-religious). When using a couple weight based on the 2008 American Community Survey, for coresident couples only, the rate of interraciality would be 6.9% for married heterosexual couples, 13.7% for unmarried heterosexual couples, 10.9% for gay male couples, and 9.1% for lesbian couples.

Table 2: Relationship Satisfaction Does Not Depend on How the Couple Met.

	Mean Relationship Quality (1-5 scale, 5 is best)
Met Through Family	4.41
Met Through Friends	4.48
Met Through or As Neighbors	4.48
Met Online	4.48
Met Through or As Coworkers	4.51
All Couples	4.47 (SD=0.75)

N=2,865, excludes 28 respondents whose partners were already deceased, and excludes 108 respondents who did not have a physical or sexual relationship with their partners. Means weighted by weight2.

Table 3: Comparing 2009 How Couples Meet to 1992 National Health and Social Life Survey

Q: Who Introduced You to Partner_Name? Choose All That Apply	1992 NHSLS pct	2009 HCMST pct	2009 HCMST (met within 10 years of survey) pct
Family	15.6	12.4**	9.2***
Friends	40.3	33.8***	30.0***
Co-workers	5.8	8.1**	6.7
Classmates	7.3	4.9**	1.4***
Neighbors	0.7	1.7**	1.8
Introduced Self or Partner			
Introduced Self	31.7	35.6*	44.2***
Other	1.6	9.9***	11.5***
N	1,367	2,349	610

*** P<.001; ** P<.01; * P<.05, two-tailed tests.
Note: Statistical tests compare columns 2 and 3 (HCMST) with column 1 (NHSLS). Tests are two sample t-tests with unequal variance, standard deviations assume Bernoulli distribution. NHSLS data weighted by RWEIGHT, HCMST data weighted by weight2.
For NHSLS, Questions are SPINTA1-SPINTG1, referring to respondent's most recent spouse or unmarried cohabiting partner. For HCMST, questions are q33_1 to q33_7, with sample limited to coresident current partners.

Table 4: How Americans Met their Spouses and Current Partners (percentages)

How Couple Met	Men married to Women	Unmarried Men partnered with Women	Women married to Men	Unmarried Women partnered with Men	Men partnered with Men	Women partnered with Women	Stat Sig.	Stat Sig same-sex couples vs. Hetero	Stat Sig men vs. women
Met Through Friends	36.8	33.1	36.3	38.3	19.7	26.0	***	***	
Met Through Family	17.4	14.0	22.0	15.0	0.1	7.7	***	***	**
Met Through Respondent's Own Family	9.0	7.9	15.5	10.9	0	0.8	***	***	***
Met as Coworkers	19.3	11.3	16.1	15.4	12.7	22.8	***		
Met at Bar, Club, or Restaurant	20.7	15.7	16.7	18.0	26.7	11.4	***		*
Met through Internet	4.5	13.8	3.6	10.0	27.3	24.1	***	***	
Met Through Work as Client	9.5	7.6	8.4	10.4	2.1	4.0			*
Met in Primary or Secondary School	13.6	8.7	13.5	7.8	0	6.5	***	***	
Met in College	8.6	5.6	9.7	7.0	9.1	10.9	**		
Met through Church	7.0	2.9	9.5	2.6	1.5	1.3	***	***	
Met in Social Group, not Church	5.3	6.8	4.9	6.8	13.2	16.7	***	***	
Met in Neighborhood	9.6	5.7	11.0	12.1	10.9	4.7	**	**	
Blind Date	4.3	2.9	3.8	2.9	4.9	0.5	***	***	
Private Party	13.5	14.0	11.1	9.5	11.6	12.9			
In Public Place	5.9	14.3	9.1	10.2	5.9	4.7	***		
N	939	307	848	377	234	229			

Source: From How Couples Meet, Wave I, variables derived from question 24 (open text answer box: "How did you meet partner_name).
N=2934, which excludes 49 refusals and 26 respondents who responded but did not provide a meaningful answer to Q24. Respondents are age 19 and higher. Averages are weighted by weight2. Unless otherwise specified, Friends, Family, and Coworkers can belong to either respondent or partner. Percentages don't add to 100% because more than one category can apply.
Statistical Significance compares across all 6 groups, whereas GLB vs. Hetero and men vs. women compare across 2 groups.
*** P<0.001; ** P<0.01; * P<0.05

Table 5: Do different types of couples meet in different ways? Comparisons with controls.

	Pct met online (met within last 10 years)	Odds Ratio	Adjusted Odds Ratio	Pct met through either family	Odds Ratio	Adjusted Odds Ratio
Heterosexual Couples	19			18.2		
Same-Sex Couples	42	3.12**	2.27***	3.5	0.16**	0.19**
Same Race Couples	20			18.7		
Interracial Couples	18	0.87	0.88	13.4	0.67*	0.72*
Same Religion Couples	16			19.5		
Interreligious Couples	23	1.55**	1.30	15.8	0.77*	0.81*
Mothers Have Similar Educational Background	20			18.3		
Mothers' Educations Differs by 4 years or More	20	1.03	1.27	16.4	0.88	0.87

*** P<0.001; ** P<0.01; * P<0.05

Source: From How Couples Meet, Wave I, met via Internet indicated either on open-text q24 or itemized list q32. Respondents are age 18 and higher. Averages are weighted. Years ago (when met) refers to time before the How Couples Meet survey, Wave I; survey was conducted in winter, 2009. Interracial couples differ among the 5 racial categories (white, black, American Indian/Native American, Asian, Other). Interreligious couples differ among the 5 religious categories (Protestant, Catholic, Jewish, Other, and non-religious). Odds ratios and adjusted odds ratios derived from separate logistic regressions. For met online, adjusted odds ratios are adjusted for the following: whether the respondent had Internet access at home before joining the KN panel, respondent age, and how long ago (within 10 years) the couple first met. For met through family, adjusted odds ratios are adjusted for the following: respondent age, and when the couple met.

Table 6: The rise of the Internet as a way of meeting partners:
Percentage of couples who met via the Internet by recency of first meeting

| When the Couple First Met | Percentage who met online | | | N of same-sex couples | Couple Distribution of When First Met (weighted percent) |
	Different-Sex Couples	Same-Sex Couples	Total US (weighted Avg)		
within 2 years (2007-2009	23.4	61	25.1	72	11.8
3-5 years ago (2004-2006)	20.3	17	20.2	58	7.8
6-10 years ago (1999-2003)	10.9	24	11.2	91	16.8
11-15 years ago (1994-1998)	3.9	3	3.9	85	14.3
16-20 years ago (1989-1993)	2.2	2	2.2	55	10.5
21-30 years ago (1979-1988)	0.7	1	0.7	65	14.2
31+ years ago (1978 and earlier)	0.2	0.4	0.2	46	24.6
Total	7.1	26.5	7.3	472	100%
unweighted N	2,522	472			

Source: From How Couples Meet, Wave I, met via Internet indicated either on open-text q24 or itemized list q32. Respondents are age 19 and higher. Averages are weighted by weight2. Years ago (when met) refers to time before the How Couples Meet survey, Wave I; survey was conducted in winter, 2009

Table 7: A lower bound for use of the internet as a way of meeting partners:
Percentage of couples who met via the internet by recency of first meeting, assuming
respondents who did not have internet access at home cannot have met online.

| When the Couple Met | Percentage who met online | | | N of same-sex couples | Couple Distribution of When First Met (weighted percent) |
	Different-Sex Couples	Same-Sex Couples	Total US (weighted Avg)		
within 2 years (2007-2009	19.2	54	20.7	72	11.8
3-5 years ago (2004-2006)	17.5	15	17.8	58	7.8
6-10 years ago (1999-2003)	10.1	21	10.4	91	16.8
11-15 years ago (1994-1998)	3.9	3	3.9	85	14.3
16-20 years ago (1989-1993)	1.5	2	1.5	55	10.5
21-30 years ago (1979-1988)	0.6	1	0.6	65	14.2
31+ years ago (1978 and earlier)	0.2	0.4	0.2	46	24.6
Total	6.0	22.8	6.5	472	100%
unweighted N	2,522	472			

Source: From How Couples Meet, Wave I, met via internet indicated either on open-text q24 or itemized
list q32. Respondents are age 18 and higher. Averages are weighted. Years ago (when met) refers to
time before the How Couples Meet survey, Wave I; survey was conducted in winter, 2009

Table 8: Age dependence for meeting online: Adults with different-sex partners who met their partners within 10 years prior to the survey.

Respondent Age	Percentage who met online	Statistically significant difference from the average
18-24	12.3	*
25-34	16.4	
35-44	22.9	**
45-54	17.0	
55 and older	18.6	
Total	17.0	
N	921	

Source: From How Couples Meet, Wave I. Averages are weighted.

Figure 1: The Changing Way Americans Meet Their Partners
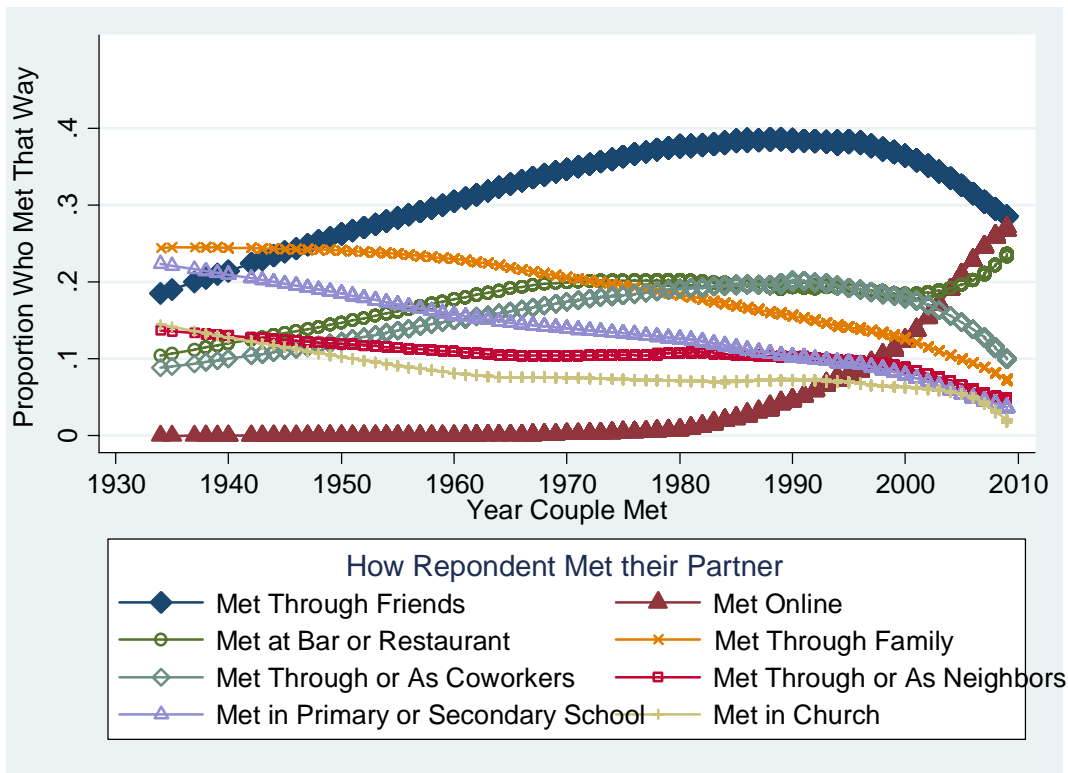
Source: From How Couples Meet, Wave I, variables derived from question 24 (open text answer box: "How did you meet partner_name"). N=2,535. Respondents are age 19 and higher, including heterosexual couples only. Data smoothed with lowess regression, bandwidth=0.8. Unless otherwise specified, Friends, Family, and Coworkers can belong to either respondent or partner. Percentages don't add to 100% because more than one category can apply.