

The Role of the Internet in Reconfiguring Marriages: A Cross-national Study¹

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Abstract

This study explores the role of the Internet in reconfiguring marriages, introducing couples that meet in person and later marry, through a set of online surveys of married couples in Britain, Australia, and Spain. The study found that a sizeable proportion of online married couples in each country first met their spouse online, usually through an online dating service, chat room or on instant messaging (IM). This was more the case for younger couples. Moreover, the study indicates that meeting online is likely to introduce people to others whom they would not be as likely to meet through other means. The Internet might well open people to more diversity in their choice of a partner, such as by introducing individuals with greater differences in age or education, but with more similar interests and values. These findings are preliminary, but suggestive of significant social trends and indirect implications of social networking in the digital age.

Keywords: Mate selection, Internet, marriage, online dating, social networks.

The Internet has the potential to change lives for better or worse by reconfiguring social networks, ranging from creating an expanded set of weak ties to introducing people to their next best friend or spouse. Cyberspace is not the utopian playfield some portrayed it to be (Rheingold, 1994; Turkle, 1995). While many increasingly look to the Internet as a place to meet people, others fear undesirable or unwanted approaches in chat rooms or over social networks. Nonetheless, there is evidence that a considerable number of people are meeting new people online and that they sometimes move on to meet one another face-to-face (e.g., McKenna, Green & Gleason, 2002; Whitty & Carr, 2006; Whitty & Gavin, 2001). The increase in the number of online dating sites adds to this evidence.

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This paper focuses primarily on findings from a large online panel of married couples, all of whom used the Internet, in Australia, Britain and Spain, where data collection was recently completed, but with some comparisons with a similar survey conducted in the US³. In particular, this paper examines the prevalence and patterns of Internet-enabled meeting and marriage across each of these countries. It focuses on who meets online and how this might be reconfiguring marriages in the network society. These findings will be further developed as surveys are conducted in other countries and the analysis broadened to other characteristics of couples.

Reconfiguring relationships

Theoretical assumptions underpinning many discussions of online relationships have tended to be technologically deterministic, and focused on the role of the Internet in reducing or enhancing social networks (Rice, Shepherd, Dutton & Katz, 2007). The question most often posed is whether or not the Internet isolates people or extends their social networks (Whitty, 2008 for an extensive discussion). Furthermore, researchers have been keen to learn whether ‘real’ relationships form online and if these move successfully offline (Whitty, 2008). Generally, survey research has failed to find a consistent relationship between Internet use and aspects of social relationships, such as sociability. If anything, those online have tended to be somewhat more sociable, despite early stereotypes of the isolated computer nerd (Rice et al., 2007; Walther, 1996). Our research has moved away from this focus on more or less connectivity to explore the degree to which people use the Internet to make new relationships and, thereby, reconfigure their social networks.

For example, bi-annual surveys of use and non-use of the Internet in Britain have examined those who create new ties through the Internet and under what conditions these online ties migrate to face-to-face settings (di Gennaro & Dutton 2007; Dutton & Helsper 2007). These surveys, the Oxford Internet Surveys (OxIS), collected data in 2005 and 2007, using a national probability sample survey of individuals aged 14 and over in Britain. OxIS showed that in 2007, almost a quarter of Internet users (23%) had met someone online who they did not know before. This was up from 20 percent in 2005. Not only did Internet users meet new friends online, about half of these individuals have gone on to meet one or more of these virtual friends in person (di

³ A survey conducted by eHarmony on recently married individuals in the United States.

Gennaro & Dutton 2007; Dutton & Helsper 2007). These findings demonstrate that the Internet plays an important role in reconfiguring the social networks of many users.

Socio-demographic characteristics, such as being single, shape patterns of Internet use and are related to the greater propensity of some individuals to make online social relationships (di Gennaro & Dutton 2007). However, the ways in which people choose to use the Internet, such as for chatting or communicating more generally, and as well as experience with the Internet, are most directly associated with who makes new connections over the Internet and who does not. For example, di Gennaro and Dutton (2007) showed that the dynamics of online friendships are driven more by the Internet user's idiosyncratic digital choices, such as to participate in a social networking site, than by any mechanistic social or technological determinism. Individuals choose to use the Internet in ways that enable them to meet others, such as by installing a Web camera. Meeting new friends is not strongly associated with any particular social group nor with the use of the Internet per se.

We have sought to extend this current research beyond 'friendship' to consider more concrete and intimate relationships by asking whether the same dynamics apply to marriage. Do individuals meet people online who they would not have otherwise met, and not only meet in person, but also develop a relationship that leads to marriage? Moreover, we were interested in learning what role has the Internet plays in introducing married couples. We also investigated whether couples that met online are more diverse or more homogeneous in their geographic and socioeconomic backgrounds compared with people who met offline. In addition to demographic differences, we were interested in other key aspects that might bring couples together, such as age, physical characteristics and similar interests. It may be that the Internet is enabling people to meet types of individuals that they do not have access to offline, or alternatively people look for the same types of matches both online and offline.

Meeting a future spouse

Despite the growth of online dating services, and much anecdotal evidence of couples meeting online, there was much doubt over the frequency and vitality of online match making. However, despite all the early negativity, researchers have found evidence that people do make friends and initiate romantic relationships in cyberspace and often these relationships progress offline (McKenna et al., 2002; Whitty 2008). While we are left in little doubt that people can and do form relationships online, we

know little about which role the Internet plays in intimate offline relationships. Obviously, this is important given that the Internet has become another mode of communication in many people's everyday lives.

Methods

This study collected data through online surveys of married couples who used the Internet in Australia, Britain and Spain. The samples of married couples were obtained through online panels of Internet users in each of the three countries. A total of 14,607 married individuals were approached to answer the survey. Once the first partner of a couple had completed the questionnaire their partner was contacted and asked to participate in the survey. The response rate was 29% in Australia, 40% in Britain and 33% in Spain. The participants were guaranteed anonymity, neither their partner nor third parties could identify them by their answers. Participants were able to drop out at any point during the survey and ask for their individual data to be removed from the database. None of the participants requested removal of their data. Couples received an incentive after both partners had completed the survey. Through this process we were able to obtain probability samples of online married couples in each country, 920 married couples in the UK, 748 couples in Australia, and 1002 couples in Spain, who used the Internet (Table 1). The UK sample was weighted to better reflect our estimates of online married couples in the UK, based on OxIS data on age and education. We did not have comparable data to weight the Australian and Spanish sample.

Related survey data from the US is referred to in this paper in order to provide further evidence about the generality of these findings, but it should be kept in mind that the US sample is focused on recently married individuals, and is therefore likely to capture a larger percentage of couples who had met online.

The three country surveys explore a number of other issues, such as how married couples use the Internet within their relationships, but this paper focuses primarily on data collected on who meets online and how this might be reconfiguring marriages in the network society.

Table 1

Samples of Married Couples Who Used the Internet in Australia, Spain and the UK

	Australia	Britain	Spain	US*
Fieldwork	November 2007	October 2007	November 2008	November 2007
Sample	Married couples who used the Internet	Married couples who used the Internet	Married couples who used the Internet	Recently married individuals who used the Internet
Individuals	1,496	2,401	2,186	10,675
Couples	748	949	1,002	N/A
Weighting	Unweighted	Weighted to Represent Married Internet Users	Unweighted	Weighted to Represent recently Married US residents between 20-54

**Note.* the US data is reported in this paper in order to provide further evidence about the generality of this study, but it should not be treated as comparable data, as the US sample has a different profile than the other samples.

The characteristics of individuals in each sample are compared in Table 2. On average, the survey sample in the UK was somewhat older (49 years v 41-42 years of age) and married longer (19 v 13 years) but with fewer children (1.6 v 1.9) on average than Australian couples but more (1.6 v 1.3) than Spanish couples. A sizeable proportion of married couples in the UK and Spain do not have children (24% and 23% respectively). Australian samples have a very similar profile to their Spanish counterparts in terms of age and length of marriage but they appear to be the most likely to have children among the three countries surveyed (Table 2). (Since the sampling procedures were not identical across the three countries, we have not made any claims of statistically significant variations across the national samples.)

Table 2

Composition of the Sample, Australia, Spain and the UK

Characteristic	Australia	Spain	UK	US
Mean Age	42 years	41 years	49 years	32 years
Mean Length Married	13 years	13 years	19 years	10 months
Number of Children	1.9	1.3	1.6	1.0
% Without Children	18	23	24	52

Results

The role of the internet in meeting partners

The findings of these surveys indicate that the Internet is indeed playing a significant role in introducing couples. In the UK, about 6% of married couples who use the Internet met their partners online and a similar proportion is reported in Spain (5%). In Australia, with younger married couples, the percentage was higher, 9%

saying they met their partner online (Figure 1). These are based on data for all couples who completed more than 90% of the survey.

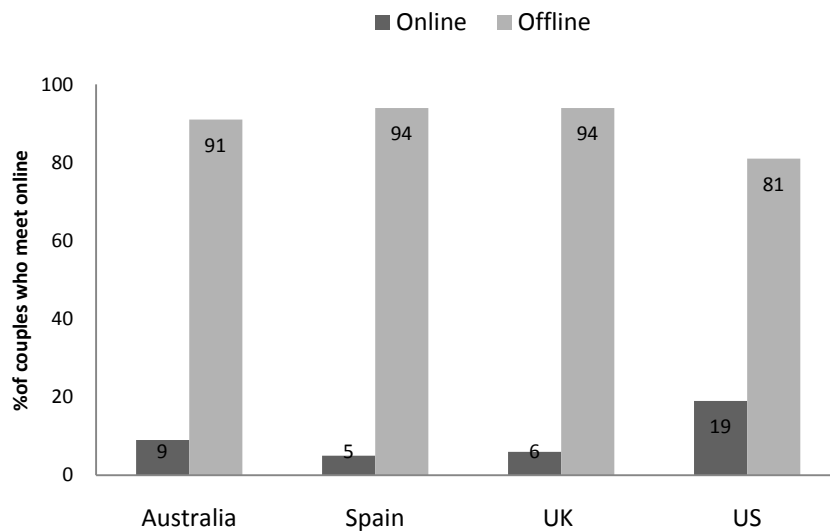


Figure 1. Couples who have met online in different countries (Australia, Spain, UK and US).

In all countries, the largest proportion of married couples that met online was middle aged, 26 to 55 years of age (Figure 2). In both Australia and Spain, the largest proportion of married couples who met online was between 26 and 35. In the UK, the largest proportion of those who met online was older, between 36 and 45,. This data is based on couples who met online (N=57 couples in UK, N=67 couples in Australia, N=50 couples in Spain).

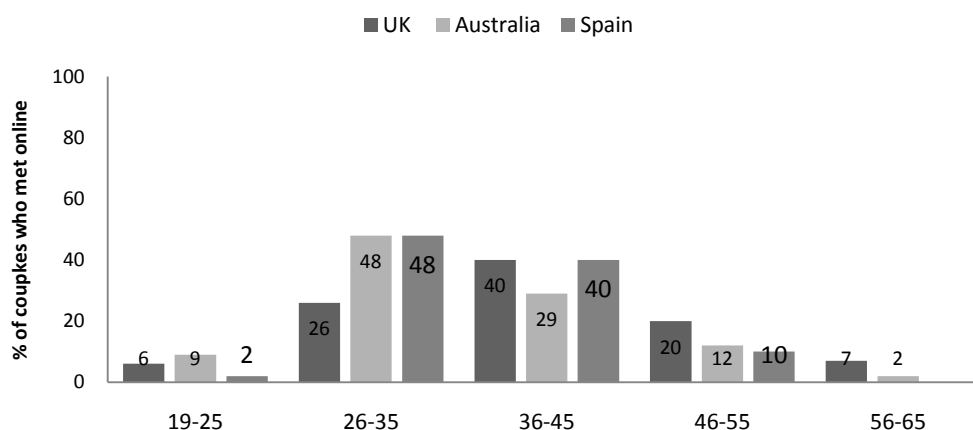


Figure 2. Age composition of couples who met online.

The size of the middle aged group reflects the larger proportion of married couples in this age bracket. In contrast, analyses which examined the percentage of

couples within each age group that met online (Figure 3) showed that younger people were more likely to have met their partner online. In the UK, a fifth (21%) of married individuals between 19 and 25 years of age met their spouse online, while in Australia, this figure was even higher, one-third (34%). In the US, the largest percentage of individuals meeting online (42%) could be found within the age group of 26 to 35 years. This is based on all individuals who completed more than 90% of the survey.

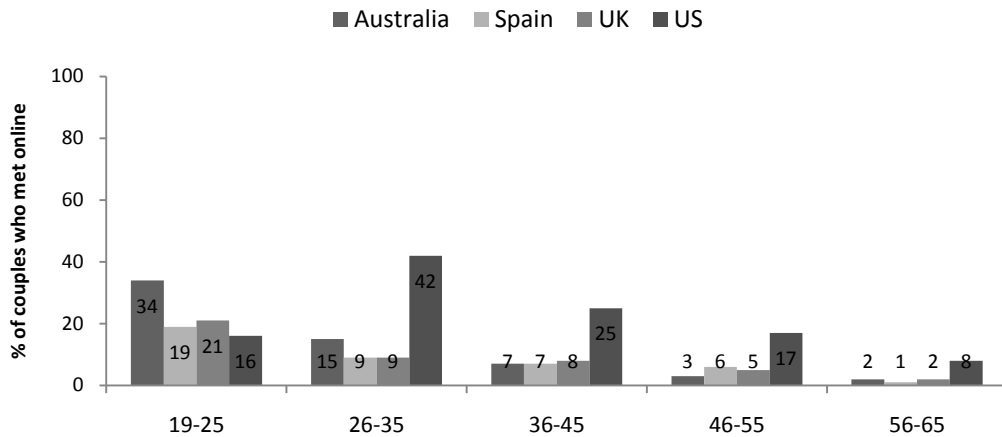


Figure 3. Couples who met online within different age groups (Australia, Spain, UK and US).

Where people meet in cyberspace

We asked those respondents who met their spouse online whether they met their future spouse through an online dating site, in a chat room, a social networking site, on e-mail or in a variety of other online spaces (Figure 4). In the UK, an online dating site was the most frequently mentioned as a place where the couple met online, by 34%. This was followed by online chat rooms (19%) and instant messaging (18%). In Spain, chat rooms were the most frequently mentioned (40%), followed by instant messaging (22%) and online dating sites (14%). All other locations were far less frequently cited, including social networking sites, mentioned by less than 5%. The pattern in Australia was similar to that of Spain, with most people meeting through chat rooms (26%), followed by an online dating site (18%) and instant messaging (23%). The pattern in the US was similar to that of the UK with most people meeting through an online dating site (49%), followed by chat rooms (13%) and instant messaging (12%). This was based on all individuals who completed more than 90% of the survey.

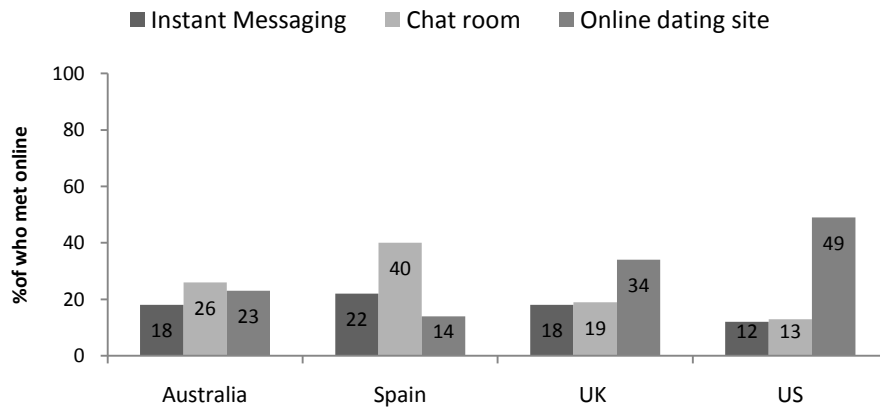


Figure 4. Place married couples met online (Australia, Spain, UK and the US).

These age distributions and meeting spaces, suggest that the frequency of couples meeting online is likely to increase in the coming years. Younger couples were more likely to meet online, and OxIS suggests that those growing up with the Internet are likely to take this medium as a more natural place to meet people, generally (Dutton & Helsper 2007). Also, social networking sites are becoming more prominent in linking people through common friends and social networks, and therefore likely to grow in their relevance to dating and partnerships.

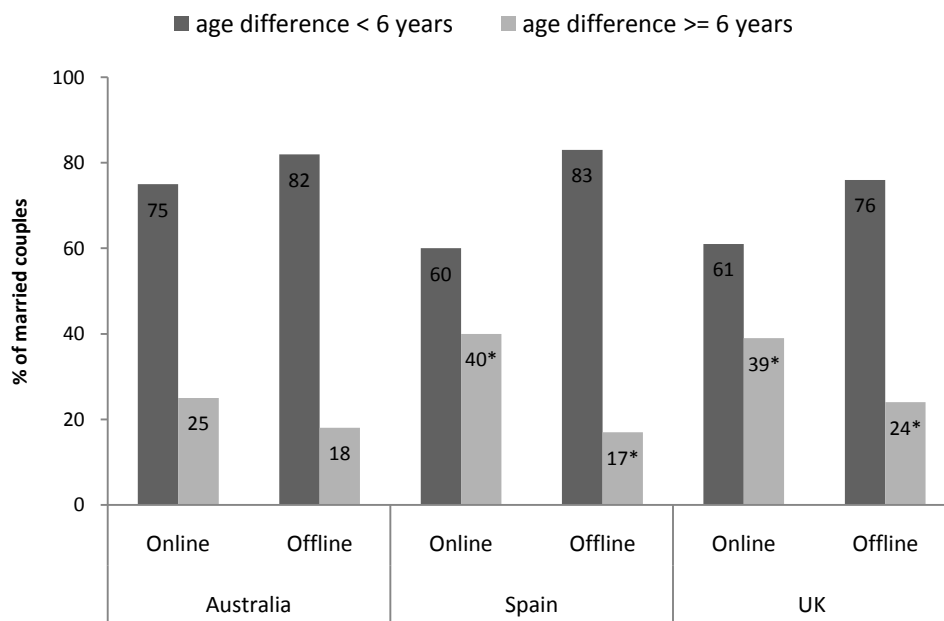
The differences across couples introduced online and offline

Given a sizeable, and possibly growing, proportion of couples that meet online, it is critical to ask whether individuals are likely to meet people online whom they might not meet through more traditional paths. We might predict that online media would provide less access to more traditional cues, such as age, and therefore enable people to initiate a relationship with someone whom they might not otherwise even strike a conversation. If this is the case, we should see differences between the characteristics of couples that met online, compared to those who met offline.

To explore this notion, we compared couples in each country on two basic attributes, age and educational background. We hypothesized that couples who met online would be less likely to be deterred by a person's age difference, since this may not be as apparent in some online settings and is not as driven by one's existing social networks, which are likely to be of similar socioeconomic status. Likewise, we expected couples who met in more traditional ways to marry individuals with similar educational backgrounds, since they would be more likely to be in similar social networks. In both

areas and in all three countries, individuals who met their spouse on the Internet showed a larger difference in age and educational background with their spouse than those who met offline.

Figure 5 shows that in Spain and Britain, couples that met online were most likely to have a difference in their age of greater than 6 years compared to their counterparts in Australia. In Spain, 40 percent of online couples had an age difference greater than 6 years, compared with 39 percent in the UK and 25 percent in Australia. However, within all three countries couples who met in more traditional ways were less likely to have a difference in their age of greater than 6 years (Figure 5). For example, only 17 percent in Spain reported that they had an age difference greater than 6 years. This was based on couples who answered more than 90% of the survey.

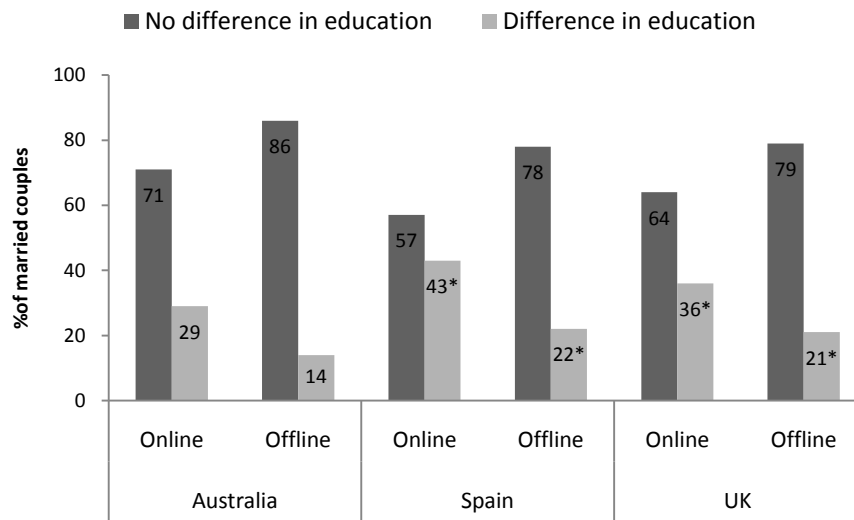


**The difference in proportions is significant, $p < .05$*

Figure 5. Age differences within couples who met online and offline (Australia, Spain & the UK).

Figure 6 illustrates the findings for educational backgrounds. Within each country, we compared couples in which both partners had a university degree, or who did not have a university degree, and those in which one partner had a university degree and one partner did not. The results suggest that couples who met online were more likely to have a difference in their educational backgrounds. In both the UK and Spain, more than a third (36 and 43 percent respectively) of online couples had a difference in their educational backgrounds, while only a fifth (21 and 22 percent respectively) who

met in other more traditional ways showed this difference. This is based on couples who completed more than 90% of the survey.



**The difference in proportions is significant, $p < .05$*

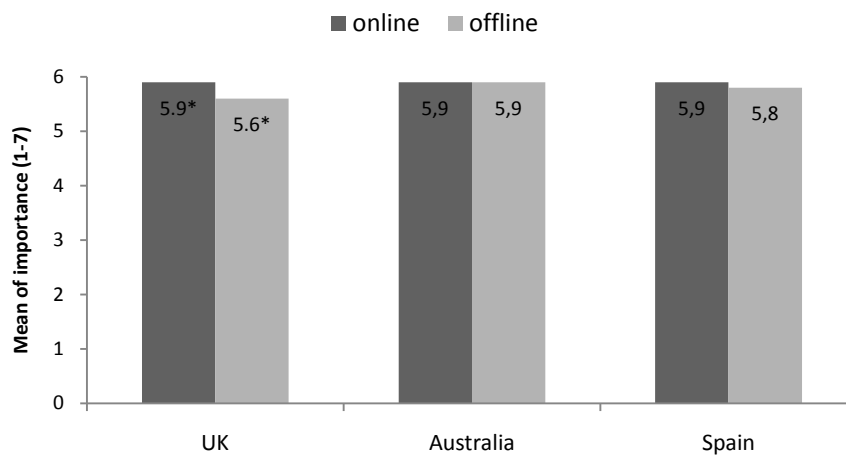
Figure 6. Educational differences within couples who met online and offline (Australia, Spain & the UK).

Different motivations or priorities

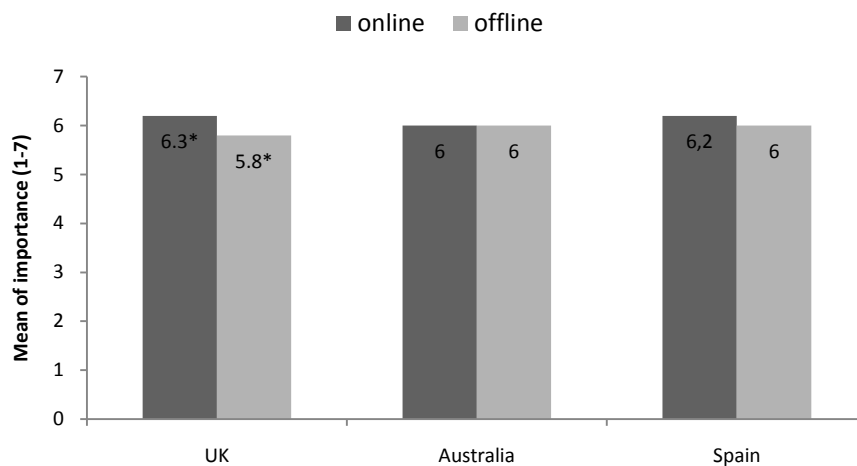
It could be that people who meet online are simply less interested in some attributes, such as age and education, than are people who prefer and tend to meet people in more traditional ways and that this lessened interest may apply to additional partner qualities, such as physical attraction. Since online couples spend time chatting and getting to know one another online, it could be that they place greater importance in qualities like personality and emotional attraction instead. We therefore asked individuals how important they rated a variety of attributes of their partner. (Individuals were asked how important they rated a variety of attributes of their partner on a 7-point scale.) These were grouped into three scales: the partner’s personality, emotional attraction, and physical attraction.

As Figures 7a through 7c show, those who met their partner online did not place less importance on physical attraction than did those who met each other in other ways. In fact, respondents in the UK and Spain who met their spouse online were likely to place more importance on all of these attributes – personality, emotional characteristics, and physical attraction – than were those who met their partner offline (Figure 7a, 7b, 7c, although the difference is not statistically significant in Spain). This was a substantively meaningful and consistent pattern in ratings. An alternative interpretation

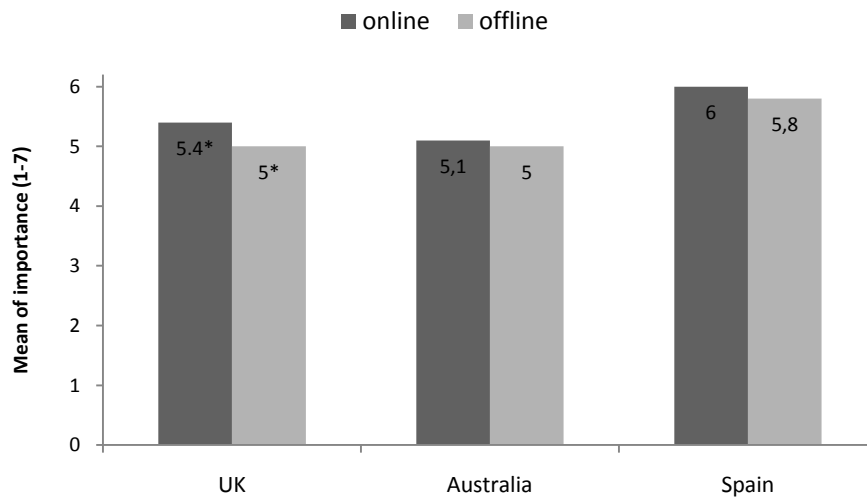
is that those who go online to meet their partner might be less selective about certain partner qualities, like similarity in age and education, and will be more selective, devoting more time to search for other attributes such as personality, emotional characteristics, and physical attraction. This is based on individuals who completed more than 90% of the survey.



**difference is significant between couples who met online and offline at $p < .01$*
 Figure 7a. Ratings of personality by individuals who met their partner online or offline.



**difference is significant between couples who met online and offline at $p < .01$*
 Figure 7b. Ratings of emotional attraction by individuals who met their partner online or offline.



*difference is significant between couples who met online and offline at $p < .01$
 Figure 7c. Ratings of physical attraction by individuals who met online and offline

Similarities and differences in interests

It could also be that online couples place more importance in finding people with similar interests, since many online meetings occur in chat rooms, gaming sites, and other areas where like-minded individuals might go. We therefore asked individuals how important they rated a variety of interests and activities. Again this is based on individuals who completed 90% the survey.

Table 3

Average value placed on interests and activities by couples who met online or offline

	UK		Australia		Spain	
	Online Mean(SD)	Offline Mean(SD)	Online Mean(SD)	Offline Mean(SD)	Online Mean(SD)	Offline Mean(SD)
Friendship	5.6(.94)	5.6(.92)	5.5(1.16)	5.7(.92)	4.3(1.16)	4.1(.98)
Going out	5.3(1.06)	5.1(1.01)	5.1(1.04)	5(1.01)	5.1(.1.01)	4.9(1.12)
Music and Entertainment	4.9(1.29)**	4.5(1.23)	4.8(1.15)	4.8(1.15)	4.7(1.28)*	4.4(1.13)
Socialising	4.7(1.30)	4.4(1.16)	4.4(1.37)	4.6(1.21)	3.8(1.06)	3.7(1.12)
Community involvement	4.6(1.18)**	4.1(1.03)	4.3(1.14)	4.3(1.07)	5(1.21)*	4.9(1.11)
Entertaining	4.5(1.44)**	4(1.38)	4(1.37)	4.3(1.40)	4.3(1.17)*	4.2(.106)
Religion	3.1(2.02)*	2.4(1.78)	2.7(1.94)	2.5(1.81)	4.7(1.24)*	4.4(1.34)

* difference is significant between couples who met online and offline at $p < .05$

** difference is significant between couples who met online and offline at $p < .01$

Note. Individuals were asked how important they rated a variety of interests and activities on 7-point of scales.

The study found that, within all three countries, the people who met their partner online or offline were not dramatically different in their interests, both categories of partner's value friendship, and going out. However, couples who met online were more likely to value a number of other activities, including 'music and entertainment', 'religion', 'community involvement' and 'entertaining' (Table 3). In the UK and Spain, those who met online were more interested in a wider variety of things, while in Australia, there was no difference between the interest levels of couples who met online or offline.

However, it may be that those who met online have more similar interests which could be one reason why age and educational backgrounds appear less determinative of relationships.

Table 4 shows that couples who met online, particularly in the UK, were less likely to have different interests from their partner. While statistically marginal, these differences between partners' interests, such as in 'socialising', tended to be larger for couples that met offline.

Table 4
Average difference in interests within couples who met online or offline

	UK		Australia		Spain	
	Online Mean(SD)	Offline Mean(SD)	Online Mean(SD)	Offline Mean(SD)	Online Mean(SD)	Offline Mean(SD)
Friendship	0.8(.91)	0.9(.77)	0.8(.92)	0.7(.81)	0.6(.69)	0.6(.73)
Going out	0.6(.72)	0.8(.83)	0.7(.83)	0.7(.81)	0.5(.67)	0.6(.72)
Music/Entertainment	0.8(.93)	1.0(.92)	1.0(1.03)	0.9(1.16)	0.8(.91)	0.7(.83)
Socializing	0.8(.96)	1.1(1.13)	1.0(1.22)	0.9(1.09)	0.7(.86)	0.6(.82)
Community involvement	1.0(1.16)	1.0(1.21)	0.9(1.24)	1.0(1.11)	0.7(.91)	0.7(.84)
Entertaining	1.0(1.05)	1.0(.92)	1.1(1.17)	1.0(1.23)	0.8(.96)	0.7(.89)
Religion	0.9(1.17)	1.0(1.29)	1.0(1.06)	0.8(.94)	1.0(1.12)	0.8(.97)

Note. Individuals were asked how important they rated a variety of interests and activities on

Discussion

This study of the role of the Internet in reconfiguring marriages, introducing couples that meet in person and later marry, was anchored in online surveys of married couples in the UK, Australia, and Spain. The findings of these surveys indicate that the Internet is indeed playing a significant role in introducing couples. We found that by 2007/2008, a sizeable proportion – about one in twenty couples – of online married couples in each country first met their spouse online, usually through an online dating service, chat room or on instant messaging (IM). Among all samples, the largest

proportion of married couples that met online was middle aged, 26 to 55 years of age. This was proportionately more prominent for younger couples, but many couples at all ages have met online. These age distributions and locations of meeting, suggest that the frequency of couples meeting online was likely to increase in the coming years. Related research on Internet use has found that individuals growing up with the Internet were likely to take this medium as a more natural place to meet people. Also, social networking sites were becoming more prominent in linking people through common friends and social networks and therefore likely to grow in their relevance to dating and partnerships.

Will this make a difference in the types of romantic potentials people meet, and therefore have major implications for the evolution of society – literally? Our preliminary findings from this study indicate that meeting online is likely to introduce people to others whom they would not be as likely to meet through other means. It opens people to more diversity in their choice of a partner, such as by introducing individuals with greater differences in age or education, but with more similar interests and values. The study found online couples in all three countries had a greater likelihood of having a spouse with a larger gap in their ages or educational background. The study also indicates within all three countries that people who met their partner online or offline were not dramatically different in their interests, both categories of partners' value friendship, and going out. However, couples who met offline were more likely to value a number of other activities, including 'music and entertainment', 'socialising', 'community involvement' and 'entertaining'.

This pattern of findings suggests that couples who meet online place greater emphasis in a variety of partner characteristics, suggesting that meeting someone online may be a more measured and selective way to find a partner – one reason these individuals may go online. Alternatively, it could be that interactions online are driven more by cognitions, rather than emotions, leading people to be more attentive to characteristics important to them and less influenced by characteristics not as relevant but more embedded in their present social networks, such as age and socioeconomic status.

These are early findings of a set of surveys being undertaken by the larger project, but clearly suggestive of significant social trends and indirect implications of social networking in the digital age. Based on these observations, we are planning to extend our analyses of the differences across couples introduced online and offline to other samples and to other characteristics of couples, such as their personalities. Also,

we are planning additional surveys in more countries to examine the degree that these findings can be supported in other contexts overtime. It will also be important to develop more qualitative studies that help develop and validate alternative explanations for the findings of this study.

References

- Di Gennaro, C., & Dutton, W. H. (2007). Reconfiguring friendships: Social relationships and the Internet. *Information, Communication and Society*, 10(5), 591-618.
- Dutton, W. H. (1999). *Society on the line: Information politics in the digital Age*, Oxford: Oxford University Press.
- Dutton, W. H. (2005). The Internet and social transformation: Reconfiguring access. In W. H. Dutton, B. Kahin, R. O'Callaghan & A. W. Wyckoff (Eds.), *Transforming Enterprise* (pp.375-397). Cambridge, MA: MIT Press.
- Dutton, W. H. & Helsper, E. (2007). *The Internet in Britain*. Oxford: Oxford Internet Institute, University of Oxford.
- McKenna, K. Y. A., Green, A. S., & Gleason, M. E. J. (2002), Relationship formation on the Internet: What's the big attraction? *Journal of Social Issues*, 58(1), 9-31.
- Rheingold, H. (1994). *The virtual community: Finding connection in a computerized world*. London: Secker & Warburg.
- Rice, R. E., Shepherd, A., Dutton, W. H., & Katz, J. E. (2007). Social interaction and the Internet: A comparative analysis of surveys in the US and Britain. In A. Joinson, K. McKenna, T. Postmes, & U. D. Reips (Eds.), *Oxford handbook of Internet psychology* (pp. 7-30). Oxford: Oxford University Press.
- Short, J., Williams, E., & Christie, B. (1976). *The Social psychology of telecommunications*. London: John Wiley & Sons.
- Sproull, L. & Kiesler, S. (1986). Reducing social context cues: Electronic mail in organizational communication. *Management Science*, 32 (11), 1492-1512.
- Turkle, S. (1995). *Life on the screen: Identity in the age of the Internet*. London: Weidenfeld & Nicolson.
- Walther, J. B. (1996). Computer-mediated communication: Impersonal, interpersonal and hyperpersonal interaction. *Communication Research*, 23(1), 3-43.

- Whitty, M. T. (2008). Liberating or debilitating? An examination of romantic relationships, sexual relationships and friendships on the net. *Computers in Human Behavior*, 24, 1837-1850.
- Whitty, M. T., & Carr, A. (2006). *Cyberspace Romance: The psychology of online relationships*. London: Palgrave.
- Whitty, M., & Gavin, J. (2001). Age/sex/location: Uncovering the social cues in the development of online relationships. *CyberPsychology & Behaviour*, 4, 623-630.
- Whitty, M. T., Helsper, E. J., & Dutton, W. H. (2008). Netiquette and Surveillance Among Married Couples. Paper presented at *OZCHI 2008*, December 8-12, 2008, Cairns, QLD, Australia.

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