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Netiquette within married couples: Agreement about acceptable online behavior and surveillance between partners

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ABSTRACT

The internet has become an integral part of many people's everyday lives. It is unclear what its role is in maintaining intimate offline relationships and whether the use of the internet might cause conflicts between partners about what constitutes acceptable online behavior. An online survey of 920 married couples in the UK who used the internet investigated whether partners have similar netiquettes. There were high levels of agreement between married partners about the unacceptability of online infidelities; similarly they agreed more than two random individuals about the acceptability of entertainment activities which, in excess, might be addictive. Partners further showed high correspondence in surveillance behavior. Women were more concerned about their own and their partner's behavior and were more likely to monitor their partner's online activities. These findings suggest that a netiquette is developed and consciously or subconsciously negotiated within intimate relationships. Nevertheless, traditional gender differences as regards risk perception still hold; women are more likely to problematies their own and their partners behaviors.

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1. Introduction

Ever since the beginnings of the internet researchers have questioned its utility in developing and maintaining psychological healthy friendships, romantic relationships and sexual relations. Early researchers were fairly sceptical about the benefits of online relationships (Kraut et al., 1998; Sproull & Kiesler, 1986). Those who subscribed to the 'cues-filtered out perspective', for instance argued that due to fewer non-verbal and paralinguistic cues, there is diminished feeling of social presence. That is, an individual's selfperception is reduced and deindividuation is encouraged. In the absence of typical social context cues, such theorists contended that communication can become increasingly uninhibited and aggressive (e.g., as evident in flaming). However, despite all the early negativity researchers across the globe have found ample evidence that people do make friends and initiate romantic relationships in cyberspace and often these relationships progress offline (Dutton & Helsper, 2007; 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 (Tong & Walther, in press). Obviously, this is important

This study was interested to learn more about how married couples perceive the use of the internet within their relationships. We wanted to learn more about couple's expectations of each others' online activities and if some online activities were seen as taboo. There is very little known about how partners evaluate online activities and whether this has become something that is part of marital conduct and evaluation. Furthermore, we were interested in how couples use the internet to monitor each others' online activities. These aspects are important in light of an increase in online counseling and matchmaking services as well as an increased awareness of excessive internet use and the impact this has on people's lives and interactions with others. This study will further our understanding about whether internet use has become an important area of negotiation and defining intimate relationships.

There is a dearth of research on married couples' use of the internet, especially with regards to their use of it to develop and

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given that the internet has become another mode of communication in many people's everyday lives. The widespread integration of ICTs into interactions with others could mean that partners have started to establish (unspoken) rules of conduct or etiquettes about online behavior. We label these rules about what is acceptable and not acceptable *online netiquette*.

^{1.1.} Married couples' use of the internet

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maintain their relationships. We know even less about couple's expectations of each other's internet usage.

Sipior, Ward, and Marzec (2002) reported that in the US married couples with children aged 17 or younger use the internet the most. Likewise, in the UK adults with children in the household have greater interest, awareness and skills in relation to technologies including the internet (Dutton & Helsper, 2007; Ofcom, 2006). This is likely due to a filter down process whereby ICT savvy children who use the internet motivate their parents to do the same or because parents acquire ICTs because their children need them for school and end up using them themselves (VanRompaey, Roe, & Struys, 2002). Most of the studies which interview married individuals therefore discuss how the internet is used to manage relationships between parents and children (Gross, 2004; Livingstone & Bober, 2004) but do not address how parents use the internet within their adult relationships.

There is evidence that people develop and maintain intimate relationships with others through the use of the internet. For example, Wolak, Mitchell, and Finkelhor (2003) found that 14% of 1501 10–17 year olds reported close online friendships and 2% claimed to have established online romances. Whitty and Gavin (2001) found that individuals form friendships in chat rooms and perhaps more interestingly that some of these participants preferred that they remain online (see also Whitty & Carr, 2006a). Helsper, Dutton, and Whitty (2008) report that in the UK 6% of married internet users have met their partner online. The most likely meeting places for these couples were online dating sites (32%), instant messaging (20%) and chat rooms (17%).

1.2. Married couples in the offline world

There is extensive psychological research on the characteristics of married couples in the offline world. Contrary to the popular belief that opposites attract, most research finds that in general it is those who are similar that form long-lasting romantic relationships (Condon & Crano, 1988; Sprecher, 1998). The similarity between partners is not due to assimilation between the partners over the duration of the marriage but to 'selective mating' or 'assortative selection' at the meeting stage (Feng & Baker, 1994; Galbaud du Fort, Kovess, & Boivin, 1994; Price & Vandenberg, 1980). That is, these similarities already exist at the very beginning of the relationship instead of developing over the course of the relationship. In establishing a romantic relationship, similarity of interests, attitudes and values are seen as more important attributes than similarity in socio-demographic characteristics (Sprecher, 1998). This similarity does not restrict itself solely to attitudes and values, as behavioral patterns also often coincide. The literature on addiction has shown that people who abuse substances or report addictive behaviors are more likely than others to have a long term relationship with someone who has the same type of problematic behavior (Grant et al., 2007; Homish, Leonard, & Cornelius, 2007; Ladd & Petry, 2002; McLeod, 1993a; Olmsted, Crowell, & Waters, 2003; Schuckit, Smith, Eng, & Kunovac, 2002; Shaw, Forbush, Schlinder, Rosenman, & Black, 2007). Homish and Leonard (2005) showed, for example, that similarity between partners in the level of alcohol consumption was related to greater marital happiness, particularly in young couples.

When evaluating a partner's behavior or values an individual often sees their partner as more similar to themselves than they actually are. This projection heuristic leads to '...a strong tendency for spouses to use their own feelings as a reference for predicting their partner's feelings' (p.1, Sillars, Pike, Jones & Murphy, 1984; see also Ruvolo & Fabin, 1999). Since projection leads to a greater perceived similarity between the partners and greater similarity is related to marital happiness, projection can strengthen a relationship. Studies have found a positive relationship between marital

adjustment and accurately understanding the attitudes, views and expectations of one's partner (Ickes, Dugosh, Simpson, & Wilson, 2003). However, seeking out information about one's partner is not always good for a relationship. Ickes et al. (2003) found that dating partners who are highly motivated to acquire relationship-threatening information are more likely to break up. Afifi, Dillow, and Morse (2004) found similar results but suggest that these results are "affected by the communication directness with which that motivation is enacted" (p. 445).

Previous research thus suggests that partners within a marriage are likely to have the same values and behavioral patterns (McLeod, 1993a, 1993b). We thus could expect partners within married couples will have similar ideas about what types of online behavior are acceptable, what type of internet user their partner is and what the norms are for monitoring behavior.

1.3. Gender differences and online activity

Based on existing research about offline relationships it is clear that partners within married couples show high levels of similarity in their values and attitudes and it would be logical to extend this argument to online behaviors and attitudes about the internet. Notwithstanding these high levels of similarity, married couples are made up of two individuals and the individual characteristics of the partners will likely lead to different approaches to the internet. Thus while partners in married couples are likely to be more similar to each other than they are to people outside their relationship, differences within this unit will exist. One characteristic that distinguishes partners within a marriage is gender and the literature does suggest that men and women use the internet differently (Jackson, Ervin, Gardner, & Schmitt, 2001; Selwyn, 2007; Tsai & Lin, 2004; Warner & Procaccino, 2007). The biggest differences can be found in breadth of use, with women showing a narrower use of the internet than men (Ono & Zavodny, 2003; Wasserman & Richmond-Abbott, 2005). Moreover, research has found that women are more likely to have lower computer self-efficacy and less positive internet attitudes (Durndell & Haag, 2002; Hargittai & Shafer, 2006: Imhof, Vollmeyer, & Beierlein, 2007). This corresponds to lower confidence levels of women in other technical and hard science related areas (Bandura & Locke, 2003; Lucey, Melody, & Walkerdine, 2003). The lower confidence levels that women report has been shown to be largely independent from their actual skill level and to be instead related to perceptions of what men and women are supposed to be good at or what they are supposed to like doing (Busch, 1995; Durndell & Haag, 2002; Selwyn, 2007).

Most activities that have been associated with internet addiction (i.e., gambling, gaming and pornography), are undertaken more frequently by men than women. Livingstone and Helsper (2007) surveyed 1511 children and their parents and found that young men tended to take more contact and content risks online and used the internet more often for purposes, such as pornography, gaming and gambling. Other studies regarding online transactions show that men are less concerned about online risks. Garbarino and Strahilevitz (2004) found that women estimated privacy and economic risks in online transactions to be more likely than men. This corresponds to offline behavior in which men have been found to be greater risk takers and less worried about the social consequences of this behavior (Traeen, Nilsen, & Stigum, 2006). Women have repeatedly been shown to have higher levels of worry and concern than men in a wide range of circumstances (Lewinsohn, Gotlib, Lewinsohn, Seeley, & Allen, 1998; McCann, Stewin, & Short, 1991; Robichaud, Dugas, & Conway, 2003; Stavosky & Borkovec, 1988). Notwithstanding these differences in risk taking and worry offline, research by Dutton and Sheppard (2006) showed that women did not differ from men in their perception of the online risks related to privacy. The Dutton and Sheppard (2006) study

might differ from the other research because this study focused on generalized instead of on personalized, every day risks related directly to individuals or their significant others.

1.4. Unacceptable online behaviors

There is evidence to suggest that men and women believe that their partner should not engage in certain types of online activities. In fact, some online activities are deemed by many to be acts of infidelity (Mileham, 2007; Whitty, 2003a, 2005; Whitty & Quigley, 2008). In Whitty's survey of 1117 individuals it was found that behaviors such as cybersex (defined as two or more individuals engaging in private discourse about sexual fantasies, typically accompanied by sexual self-stimulation) and 'hotchatting' (defined as an online interaction that moves beyond light-hearted flirting) were believed by the majority of participants to be acts of infidelity. Parker and Wampler's (2003) study found that interacting in adult chat rooms and engaging in cybersex were rated by undergraduate students as acts of betrayal.

Emotional online betrayal, such as falling in love or self-disclosing intimate details about oneself or one's partner online are also seen by many to be serious relationship transgressions (Whitty, 2003a, 2005). As with research on offline infidelity and jealousy, gender differences have been reported as regards to which acts men and women believe are more severe or upsetting. Whitty (2005) found that women, more than men, mentioned emotional betrayal in their stories of cyber-infidelities. She also found that women were more likely than men to write that they would end the relationship if they found out their partner was having an internet affair. Parker and Wampler's (2003) study, which considered sexual online activities, found that women viewed these activities more seriously than men did. Whitty's (2003a) study further found that overall women were more likely than men to believe that online sexual acts were an act of betrayal. In this current study, we were also interested in examining what types of online behaviors men and women considered to be inappropriate. In addition to considerations of acts of infidelity, we investigated expectations in regards to the amount of time each other spent online, and whether other activities that have been linked to internet addiction such as gaming, shopping and gambling were perceived to be acceptable. To round up the picture of perceptions of online behaviors within intimate relationships, we wanted to examine surveillance of online behavior within the couple and the gender differences therein.

1.5. Hypotheses in relation to netiquette

The aim of this paper is to understand whether partners within married couples have similar ideas about netiquette. This is similar to what social psychologists would refer to as social scripts or rules within relationships, but in this case refers to rules or social scripts with regards to internet usage. The little research that has been conducted on netiquette has, in the main, focused on work relationships. For instance, Whitty and Carr (2006b) examined the types of emails that workers deemed appropriate to send and receive in the workplace. However, at present, we know little about the rules that couples negotiate with regards to online communication. Therefore, to examine whether or not partners within married couples develop a similar set of ideas about internet use. A related aim is to understand if differences in netiquette can be explained by gender differences, in other words, do husbands and wives have different ideas about what is acceptable behavior in a partner?

Based on the literature two hypotheses were developed about the acceptability of online activities within intimate relationships. These are necessarily descriptive in nature since little research exists about the establishment of netiquettes in married couples. However, based on offline relationship literature one can assume that married couples develop (unspoken) rules about what type of behavior is acceptable and assume that these are shared amongst both partners (Murray, Holmes, Bellavia, Griffin, & Dolderman, 2002).

H1. Partners within married couples share similar views about what types of behaviors are acceptable and not acceptable online.

Based on the literature that shows that women have higher levels of concern about behaviors that might be considered inappropriate or risky (e.g. Robichaud et al., 2003), and because previous research shows that women are more likely to regard online infidelity as serious problems (Parker & Wampler, 2003; Whitty, 2005) we further hypothesize that:

H2. When there is disagreement within a couple about internet use that could be considered problematic (i.e. excessive use, online infidelity or addictive online activities), women are more likely to than men to consider this behavior problematic.

1.6. Monitoring spousal behavior

Given that men and women, in the main, expect their partners to be monogamous it is perhaps not surprising that some people from time to time monitor their partner to ensure their fidelity. This is sometimes referred to in the literature as 'mate guarding'. Buss (1988), for example, identified male 'mate guarding' behaviors, including taking their partner away from a social gathering where other men are present, dropping by unexpectedly to check on their partner, and insisting that their partner stay at home rather than going out and potentially meeting other men (see also Buss & Shackelford, 1997). Most of this research is focused on male mate guarding and extremer forms of mate guarding that involve abuse. After a review of the literature we found no gender comparative studies on the issue of everyday, lower-level surveillance activities. There is even less clarity about these types of behavior online.

Previous research does show that, in general, individuals are often motivated to uncover information about their spouse, sometimes even when the information is relationship-threatening. The internet presents individuals with a new tool to check on a spouse's activities and hidden thoughts or feelings (Whitty, 2003b; Whitty & Carr, 2006a). If computers are left unattended or if one knows a spouse's password then emails can be checked and browser history can be monitored. In this study, we examined whether men and women monitor their spouse's online activities.

1.7. Hypotheses in relation to monitoring

If certain behaviors are considered problematic within a relationship it is plausible to assume that in some couples this will lead to partners monitoring each other's activities. Other research on positive and negative behaviors' and attitudes' suggests that like marries like (Buu, Puttier, Zucker, & Fitzgerald, 2006; Feng & Baker, 1994; Homish & Leonard, 2005; Homish et al., 2007; Mascie-Taylor, 1987, 1989; Price & Vandenberg, 1980; Russell & Wells, 1991; White & Hatcher, 1984). A review of the literature suggests that there is no research that examines similarities and differences in surveillance behaviors within intimate relationships. Therefore, based on findings as regards other behavioral similarities, we ten-

tatively hypothesize that the levels and types of surveillance behavior are similar in both partners in the couple.

H3. Individuals within married couples have similar patterns of monitoring their partner's behavior.

As a consequence of the dearth of offline research on monitoring between partners, there is also little known about the gender differences in surveillance and no research, that we are aware of, which deals with this issue in relation to the internet. We decided to follow the reasoning proposed earlier for gender difference in the evaluation of different online activities. We expect women to be more concerned about a wide range of online behaviors than men. As a consequence, we expect women to be more likely to take action to mitigate this feeling by monitoring their husband's behavior. Therefore, we predict that:

H4. When there is a discrepancy between couples in terms of surveillance, women are more likely to monitor their husband's behavior than men are to monitor their wives.

The paper thus focuses both on the existence of a shared netiquette in married relationships and on the gender differences that one might find in the evaluation and surveillance of partner behavior.

2. Method

The 'Me, My Spouse and the Internet' study collected data in October and November 2007 through an online survey with married couples who used the internet. An independent market research company, ICM Research, contacted its panel of internet users to draw a representative sample of the UK population. The panel consists of 100,000 individuals recruited through a nationally representative telephone omnibus survey in the UK which runs twice weekly among 1000 adults. Other sources are also used to recruit panellist, such as recruitment via other websites. Through these methods ICM has constructed a panel that consists of a representative sample of the UK population.

A total of 6012 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 study. The response rate was 40% and the final sample consisted of 2401 individuals who completed more than 90% of the survey and 992 couples in which both partners completed the questionnaire. Each person was 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 process and ask for their individual data to be removed from the database. Couples received an incentive after both partners had completed the survey. This incentive was the equivalent of £20 and consisted of a contribution towards an account that panelists opened when they started participating in the panel, whenever the account reaches £50 the panelist is send a check for the same value.

The data were weighted based on the OxIS surveys' (Dutton & Helsper, 2007) estimates of married internet users in Britain; age and income levels were used to construct the weight. Because the survey aimed to research heterosexual couples the sample of couples consisted of 50% men and 50% women. The sampling strategy used was designed to ensure the sample was representative of the British internet using population. In the final sample, 34% had finished or was currently in basic (secondary) education, 36% had further education and 27% in university education. On average the individuals had 1.6 children, 24% had no children. The average

age of the participants was 49 years old and had been married on average for 19 years.

2.1. Measures

The final survey built on a survey conducted earlier in the US by eHarmony, an online matchmaking company, who developed the survey to measure marital happiness, including questions related to marital satisfaction and psychological characteristics of the participants. For the study described in this paper questions were added in relation to internet use and the role of the internet in marital relationships. This paper will focus on two issues; that of netiquette and surveillance. Since husbands and wives were interviewed, statistics were used that are appropriate for matched pairs sampling procedures. McNemar's test was used for comparison of contingency tables and paired t-tests were used for scale comparisons. When comparing proportion scores for two different items, a normal z-test for equal proportions was used. When using kappa to test agreement between partners about the acceptability of online behaviors we considered a kappa above .21 to indicate 'fair' agreement (Landis & Koch, 1977; Sim & Wright, 2005). Instead of just ordinary kappa to estimate agreement, we used maximum kappa as an indicator of highest possible level of agreement to correct for the high skew in the scales.

2.2. Netiquette

Netiquette in this paper is operationalised as the (unspoken and spoken) rules about acceptable and unacceptable online activities. Social psychologists would use the term 'social scripts' developed between couples (see, for example, Fitness, 2001); however, given that we were only referring to rules about online activities we opted to use the phrase 'netiquette'. Netiquette was measured in relation to general internet use (that is the time spend online) and specific online behaviors (that is different types of online infidelity and entertainment related behaviors).

The question about netiquette in relation to general use asked: 'Do you ever feel that you spend too much time on the Internet?' Participants were also asked to evaluate their partner's behavior through the question 'Do you feel that your partner spends too much time on the Internet?'.

In order to measure the concept of netiquette in each partner we asked the participants to evaluate ten specific behaviors through the question 'How would you feel if your partner engaged in the following activities on the Internet?'. The answer alternatives were 'unhappy', 'don't care' and 'happy' for all these activities. The ten activities could be subdivided into emotional infidelity ('falling in love', 'sharing personal information', 'disclosing intimate details about themselves', and 'communicating relationship troubles to others'), sexual infidelity ('cybersex', 'flirting', and 'looking at pornography') and other potentially problematic behaviors ('gambling', 'gaming' and 'shopping').

2.3. Surveillance

To measure partner surveillance we asked respondents 'Have you ever checked up on your partner's activities without them knowing, by doing the following?' They were asked to answer this question for six different types of monitoring activities: 'Reading their emails', 'Reading their SMS', 'Checking their browser history', 'Reading their IM logs', 'Using monitoring software', and 'By pretending to be another person'.

3. Findings

In this section, the answers of both partners are analysed to understand if similar netiquette and surveillance patterns exist between partners. Simple descriptive analyses demonstrate whether two partners were similar (partner similarity) in their ideas and behavior and whether or not the image their partner had of them corresponds to the image that they had of themselves (partner congruence).

3.1. Netiquette: Internet use

Table 1 shows that in over half of the couples the partners had similar perceptions about how much time they spent using the internet. The most common occurrence was that both partners within the couple thought that their own use was unproblematic (45%). In 12% of the couples both partners evaluated themselves to spend too much time online. This means that in total 57% of the couples consisted of partners with similar (self-evaluated) patterns of internet use. In 43% of the couples there were dissimilarities, with one of the partners evaluating their own behavior as problematic, while the other partner evaluated their own behavior as unproblematic. The wife's evaluation of her own use and the husband's evaluation of his own use were not significantly related $(\chi^2_{(1)} = 1.66, p = .11, McNemar p = .34)$. This indicates that there was no significant partner similarity; that is, a person who perceived their own behavior as problematic was just as likely to have a partner who considered their own behavior as unproblematic as they were to have a partner who considered their own behavior as problematic.

If these self-evaluations were correct this would mean that in just under half of the couples in our sample one of the partners had difficulties managing the time they spent online while the other partner did not. To understand whether there is conflict in the perceptions that partners have about the time spent online in their relationship it is useful to examine the level of agreement between partners about the behavior of one of the partners. If a person, who is perceived by their partner to be spending too much time online, does not agree with their partner's evaluation this could be a potential source of conflict.

Table 2 indicates that partners in most cases agreed over whether or not one of the partners had a problem with the time they spent online. There was agreement about the behavior of the husband in 77% of the cases and agreement about the behavior of the wife in 75% of the cases. McNemar's test for equivalence in matched pairs indicates that there was agreement between husbands and wives over the time the husband spent online ($\chi^2_{(1)} = 225.23$; p < .01; McNemar p < .01). Similarly, there was agreement between spouses about the evaluation of the time the wife spent online ($\chi^2_{(1)} = 175.33$; p < .01; McNemar p < .01). The conclusion is therefore that there was partner congruence when evaluating both the wife's and the husband's behaviors.

Table 1Similarity in partners' perceptions of the time they spend online.

		Husband		
		'I spend too much time online' (%)	'I do not spend too much time online' (%)	
Wife	'I spend too much time online' 'I do not spend too much time online'	12 20	23 45	

Base. Weighted data for all couples that completed the questionnaire (N = 920). Note. χ^2 not significant (McNemar's p = .34).

In addition, there was a significant relationship between the evaluation of the extent of time management problems of the wife and the husband (McNemar $\chi^2_{(6)}$ = 20.08, p < .01). When a husband and wife thought a husband's behavior was problematic they also tended to agree that the wife's behavior was problematic (in 5% of couples) and, similarly, when both thought that a wife's behavior was unproblematic they also agreed that the husband's behavior is unproblematic (31% of couples).

Nevertheless, a z-test of two proportions shows that there were more married couples which judged the time the husbands spent online as problematic (24%) than couples who judged the time the wife spent online problematic (18%) (z = 3.16; p < .01).

When the partners disagreed about the extent to which the time spent online was problematic, the gender of the evaluator and not the gender of the evaluatee was important in understanding the nature of the disagreement. Table 2 shows that in 15% of all couples the husband said he did not spend too much time online while his wife did think he had a problem. This equated to 63% (N = 127) of the couples who disagreed about the amount of time the husband spend online (24% of total; N = 209). When the partners were evaluating the wife's behavior, in only 8% of all couples the wife thought her use was unproblematic while the husband thought she did use the internet too much. This equated to 33% (N = 72) of the couples who disagreed about the wife's behavior (25% of total; N = 228). In twice as many couples (16%) the wife thought she spent too much time online when the husband did not think she had a problem. The proportion of women that were more concerned about their own behavior than their husband and the proportion of women that were more concerned about their husband's behavior than their husbands was not significantly different (z = -0.87; p = .39). Thus, women viewed their own and their husband's behavior as more problematic than their husband did.

3.2. Netiquette: specific activities

Descriptive statistics (see Table 3) show that the highest percentage agreement between partners was found for those activities that have been labeled 'infidelity' (see, for example, Whitty, 2005). In 90% of couples both partners were unhappy for the other partner to fall in love with someone else online, and 84% of couples both were unhappy for the other engaging in cybersex. For the other infidelity online behaviors the level of agreement ranged between 69% of couples who were unhappy (flirting online) to 79% of couples unhappy with the behavior (disclosing intimate details about themselves). Only in the case of potentially addictive online behaviors were there couples in which both partners were happy about the other engaging in a specific activity.

More couples disagreed about the level of acceptability of their partner engaging in entertainment or potentially addictive activities than about the acceptability of online infidelity. The largest number of couples disagreed about the acceptability of looking at sexual material (59% agrees, 36% disagrees), followed by high disagreement about online gaming (56% agrees, 35% disagrees), gambling (67% agrees, 19% disagrees) and shopping (53% agrees, 32% disagrees). In addition, a high percentage of couples did not care whether or not their partner undertook the entertainment related behaviors (i.e. gambling [11%], gaming [37%], and shopping [23%]).

An examination of the average evaluations of the acceptability of the different behaviors through t-tests shows that infidelity related to falling in love and disclosing intimate details were not evaluated significantly different by partners (see Table 3). There were significant differences in their evaluations of cybersex (t = 3.15; p < .01), sharing personal information (t = 6.16; p < .01) and communicating relationships troubles (t = 3.80; t < .01). As regards entertainment related behaviors there was a significant dif-

Table 2 Partner congruence about the time spent online by one of the partners.

		Husband's time online		Total (%)		
		Husband thinks HTO problematic (%)	Both think HTO unproblematic (%)	Both think HTO problematic (%)	Wife thinks HTO problematic (%)	
Wife's time online (WTO)**	Husband thinks WTO problematic	1	5	1	0	8
	Both think WTO unproblematic	5	31	13	9	57
	Both think WTO problematic	2	9	5	2	18
	Wife thinks WTO problematic	1	8	4	3	17
	Total	9	53	24	15	100

Base. Weighted data for all couples that completed the questionnaire (N = 920).

Table 3How would you feel if your partner engaged in the following activities on the Internet? ('unhappy', 'don't care', 'happy', 'don't know').

	Partners within	Partners within a married couple				
	Are both unhappy (%)	Both don't care (%)	Are both happy (%)	Both don't know (%)	Disagree about acceptability (%)	
Fell in love with someone else ($t_{(861)} = -0.73$; $p = .47$)	90	0	0	6	4	
Cybersex with someone other than yourself** $(t_{(863)} = 3.15; p < .01)$	84	1	0	8	6	
Disclosed intimate details about themselves with someone of the opposite sex ($t_{(826)} = 1.34$; $p = .18$)	79	2	0	10	9	
Shared personal information about you with someone of the opposite sex** $(t_{(822)} = 6.16; p < .01)$	73	2	0	10	15	
Flirted online with someone other than yourself $(t_{(805)} = 3.74; p < .01)$	69	4	0	12	15	
Communicated their relationship troubles with someone of the opposite sex $(t_{(778)} = 3.80; p < .01)$	70	1	0	15	14	
Gambling** $(t_{(788)} = 3.37; p < .01)$	55	11	1	14	19	
Shopping $(t_{(873)} = -0.56; p = .57)$	0	23	36	5	36	
Viewed 'adult' sites (e.g. sexual content) $(t_{(779)} = 3.74; p < .01)$	36	16	1	15	32	
Games $(t_{(835)} = 1.41; p = .16)$	5	37	15	9	35	

Base. Weighted data for all couples that completed the questionnaire (N = 920).

Note. t-Test calculated on three point scale (unacceptable-acceptable) excluding 'don't know' category.

ference between husbands' and wives' evaluations for gambling and viewing adult sites but not for gaming and shopping. Thus, percentage and average agreements give a contradictory picture as regards similarity in netiquette between husbands and wives.

'True' agreement is better measured through kappa (Sim & Wright, 2005). Due to the very high occurrence of the 'unacceptable' evaluation as regards infidelity behaviors as indicated by the prevalence index (see Table 4), finding high percentage agreements is not extraordinary for these activities. That is, the chance that anyone considers these acceptable is very low and thus two individuals are bound to agree that the behavior is unacceptable independent of them being in a relationship. In these types of cases, kappa gives a better indication than percentage agreement

of whether the agreement within the couple is greater than the agreement between to random individuals.

Table 4 shows the kappas related to the agreement between partners about the acceptability of infidelity and entertainment activities. Kappa takes into consideration the distribution of evaluations within the population and thus indicates whether two raters agree more than would be expected based on the distribution within this population. Table 4 shows that most entertainment behaviors obtained agreement scores ranging from 'fair' (sexual material; kappa = .32 and gaming; kappa = .31) to 'moderate' (gambling; kappa = .44). The agreement scores were lower for infidelity behaviors, ranging from 'fair' for cybersex (kappa = .33), flirting (kappa = .29), and disclosing intimate details about themselves

Table 4Agreements in kappa for: 'How would you feel if your partner engaged in the following activities on the Internet'?

	Kappa	c.i.	$Kappa_{max(prop)}$	Prevalence index	Bias index
Fell in love with someone else	.20	.0436	0.90 (.22)	0.96	0.00
Cybersex with someone other than yourself	.33	.3851	0.74 (.45)	0.92	-0.01
Disclosed intimate details about themselves with someone of the opposite sex	.28	.1739	0.90 (.31)	0.88	0.00
Shared personal information about you with someone of the opposite sex	.19	.1128	0.60 (.32)	0.80	-0.01
Flirted online with someone other than yourself	.29	.2037	0.80 (.36)	0.78	-0.01
Communicated their relationship troubles with someone of the opposite sex	.11	.0318	0.67 (.16)	0.81	-0.01
Gambling	.44	.3851	0.86 (.51)	0.62	0.00
Shopping	.29	.2334	0.98 (.30)	-0.38	0.00
Viewed 'adult' sites (e.g. sexual content)	.32	.2738	0.66 (.48)	0.41	-0.03
Games	.31	.2536	0.94 (.33)	-0.11	0.00

Base. Weighted data for all couples that completed the questionnaire (N = 920).

Note. See Sim and Wright (2005) for a description of the calculation of the confidence interval (c.i.), and kappa max and proportional kappa.

^{**} χ^2 (McNemar) significant at p < .01.

^{**} t-Test difference significant at p < .01.

(kappa = .28) to only 'slight' agreement for the other infidelity behaviors. Thus partner agreement for entertainment related behaviors was statistically stronger than partner agreement for infidelity related behaviors. The proportionality of kappa under kappa max takes into consideration the marginals, that is the highest possible agreement based on all the answers given, and is thus appropriate considering the skewed structure of the data. When using the maximum kappa as an indicator of the highest possible 'true' agreement between two individuals, proportionally, gambling (.51), cybersex (.45), and viewing adult sites (.48) continue to have the highest real levels of agreement and the emotional infidelities the lowest levels of agreement (see Table 4). The bias index shows that not only do the within couple evaluations correlate highly they also tend to be a similar in level.

It was hypothesized that when the couples disagreed it was likely that the wife would be more concerned about the behavior than her husband. Table 5 shows the percentage of couples in which either the husband or the wife was happy for their partner to undertake a certain activity while their partner was either unhappy or did not care if they undertook that same activity.

When partners disagreed about the acceptability of online activities it was most frequently the wife who was the least happy with her partner undertaking this activity. These differences are largest for the (stereotypically) 'male' behaviors (gaming, gambling, and looking for sexual material). For example, in 25% of the couples the men were happy for their wives to look at sexual material while their wives were 'unhappy' or 'don't care' about what their husband did. On the other hand only 7% of couples showed the reverse relationship, in these couples the women were 'happy' for their husband to undertake these types of activities while their husbands said they would be 'unhappy' or 'don't care' about their wives undertaking these behaviors. The z-tests for two proportions shows that these gender differences were significant for all infidelity behaviors except for falling in love and disclosing intimate details about the self (see Table 5). As regards the entertainment behaviors, only gambling and looking at sexual material showed significant gender differences, while for games and shopping wives and husbands were equally concerned.

3.3. Monitoring

The previous sections discussed how both partners evaluated online activities undertaken by their partners. Since there was some disagreement about what was considered appropriate and since some online behavior of the partner was considered unacceptable it would not be strange for partners to check up on each other's behavior.

Table 6 shows that surveillance patterns in husbands and wives were significantly related ($\chi^2_{(1)} = 132.85$; p < .01; McNemar

Table 6Level of monitoring behavior between husband and wife**.

	Level of monitoring	Wife		
		None (%)	At least one type (%)	
Husband	None At least one type	56 9	19 17	

Base. Weighted data for all couples that completed the questionnaire (N = 920). ** χ^2 (McNemar) significant at p < .01.

p < .01). Overall 73% of partners within a couple had similar monitoring behavior (kappa = .37), in 56% of the couples none of the partners undertook any monitoring behavior and in 17% of the couples both partners used at least one of the six types of surveillance on their partner.

Table 7 examines the gender differences for the individual surveillance activities. This gives insight into which activities were most likely to be undertaken.

Table 7 shows that husbands' and wives' monitoring activities were similar. The activities that were most frequently undertaken were reading emails (10% of couples both did this and in 22% couples one of the partners did this; $\chi^2_{(1)}$ =108.42; p < .01; McNemar p < .01), reading SMS messages (10% of couples both did this and 20% one of the partners; $\chi^2_{(1)}$ =146.47; p < .01; McNemar p < .01), and checking the partner's browser history (4% of the couples both did this and in 16% one of them did; $\chi^2_{(1)}$ =54.77; p < .01; McNemar p < .01). Kappa scores confirm that agreement between partners was 'fair' for the surveillance behaviors.

Percentage discrepancies in behavior between the two partners within the couple were greatest for reading emails, reading SMS, and checking browser history, these were also the three behaviors that were undertaken most frequently. *z*-Tests for two proportions (see Table 7) suggest that when only one person within the couple monitored their partner, it was significantly more likely to be the wife checking up on the husband than the husband checking up on the wife.

4. Discussion

The first aim of this paper was to understand whether partners in married couples showed similarities in their idea of netiquette (i.e. similar social scripts as to what is acceptable internet behavior). This was measured through their views on time spent online and through their evaluation of specific activities which might be considered problematic as regards emotional or sexual infidelity and addiction. Research about offline attitudes, values and problematic behavior has shown that married partners tend to be more similar to each other than to other people (Feng & Baker, 1994;

Husband and wife comparison of the levels of acceptance of the partner undertaking different online activities.

	If partner would undertake behavior			p
	Husband happier than wife (%)	Wife happier than husband (%)		
Viewed 'adult' sites (e.g. sexual content)	25	7	-10.53	**
Games	19	16	-1.69	0.0
Shopping	17	19	1.12	0.2
Gambling	12	7	-3.66	**
Shared personal information about you with someone of the opposite sex	11	4	-5.70	**
Communicated their relationship troubles with someone of the opposite sex	10	5	-4.07	**
Flirted online with someone other than yourself	10	5	-4.07	**
Disclosed intimate details about themselves with someone of the opposite sex	5	4	-1.03	0.
Cybersex with someone other than yourself	4	2	-2.51	*
Fell in love with someone else	2	2	0.00	1.

Base. Weighted data for all couples that completed the questionnaire (N = 920).

^a z- and p-values for the comparison between couples where husbands are happier and wife's are happier about behavior undertaken.

Proportions significantly different at p < .05.

Proportions significantly different at p < .01.

Table 7Have you ever checked up on your partner's activities without them knowing, by doing the following?

	Partner who has monitored				z^{a}	р	k
	Husband (%)	Wife (%)	Both (%)	Neither (%)			
Reading their emails**	8	14	10	69	4.11	**	.33
Reading their SMS text messages**	7	13	10	70	4.29	**	.39
Checking their browser history**	6	10	4	79	3.16	**	.24
Reading their Instant Message logs	2	4	2	92	2.51		.31 ^b
Using monitoring software	1	1	0	98	0.00		.16 ^b
By pretending to be another person	1	1	0	98	0.00		.31 ^b

Base. Weighted data for all couples that completed the questionnaire (N = 920)

- ^a z- and p-values for the comparison between only husband and only wife as monitors.
- b Contingency table contains cells with counts smaller than 5, kappa and χ^2 cannot be interpreted.
- ** Proportions significantly different at p < .01.

Grant et al., 2007; Low, Cui, & Merikangas, 2007; Luo & Klohnen, 2005; Mare & Schwartz, 2006; Murray et al., 2002; Sakai et al., 2004; White & Hatcher, 1984). This paper investigated whether the same principle is valid for online behavior. We hypothesized that people with online behavioral problems would be likely to marry people who perceive themselves to have the same problems or for both partners to be without problems. The findings suggest that there is no significant similarity between married partners as regards the time they spent online. Just over half of the partners within the married couples shared a similar evaluation of how much time they spent online.

Another argument within the relationship literature is that marital satisfaction depends not only on how similar the partners are but also on how good they are at evaluating their partner's behavior in a way that corresponds to that partner's self-evaluation (Acitelli, Kenner, & Weiner, 2001; Sillars et al., 1984). This type of agreement about the behavior of one partner was labeled congruence (as opposed to similarity) between the partners' evaluations. While there was no partner similarity in the time each spent online, there was congruence between the partners in the evaluation of the time one of the partners spend on the internet.

In H1 we predicted that partners within married couples share similar views about what types of behaviors are acceptable and unacceptable. The findings on time spent online lead to the conclusion that H1 was supported, since the partners seem to have developed similar ideas about how acceptable the online behavior of one of the partners was. On the other hand, we would have to reject H1 if it is interpreted as two partners showing similar behavioral patterns. There were many couples in which only one of the partners was perceived to have a problem with the time they spent on the internet.

The second hypothesis (H2) stated that when couples did disagree women would be more inclined to find online behaviors unacceptable than men. H2 was supported since women tended to evaluate the time that was spent online as more problematic than men. Thus while there was high agreement about the extent to which the individuals within the couple engaged with the Internet, when there was disagreement it was almost always the women who evaluated their own and their partner's behavior as more problematic. The fact that it did not matter whether this disagreement was about the husband or the wife's behavior suggests that women have a different interpretation of what constitutes excessive internet use compared to men. The literature about risk perception and risk taking might be of use in this context given that men have consistently been shown to have lower perceptions of risk and are more prone to taking risks than women in similar situations (Byrnes, Miller, & Schafer, 1999). Online there are examples of the same effect, for example, women perceive a higher level of risk in online purchasing compared with men (Garbarino & Strahilevitz, 2004). Similarly, Youn (2005) and Staksrud and Livingstone (2009) showed that young women are more concerned about protecting their online privacy than boys. This pattern is reflected in our findings in that men were less likely to consider their own behavior and that of others problematic. Men were indeed more likely than women to think online behaviors were acceptable which could be considered an implicit endorsement of the activity.

Interesting results emerged when we examined which types of activities individuals would feel happy or unhappy for their partner to engage in. Previous research found that individuals typically regard online acts of infidelity as significant as offline acts of infidelity (Mileham, 2007; Parker & Wampler, 2003; Whitty, 2003a, 2005, in press). Hence, it makes sense that in the majority of couples in our study both partners said that they would be unhappy if their partner was engaging in such activities online. Falling in love with someone online and engaging in cybersex with someone else topped the list of being unacceptable. It is important to point out that one of the limitations of this study was that individuals (e.g. men and women) might have interpreted terms such as cybersex and hot chatting differently since participants were not given a definition or examples of these activities. So the findings should be qualified by stating that they hold for people's varying interpretations of infidelity and other potentially problematic behaviors.

We also investigated whether partners agreed on the acceptability of other behaviors that have been considered addictive or involved financial risks. Online gambling was perceived by over half of all couples to be an activity they would be unhappy about their partner engaging in, whilst only 1% stated they would be happy about their partner engaging in online gambling. The analyses showed that there is more evidence for a shared netiquette between partners as regards these entertainment behaviors than for behaviors that were associated with infidelities. A tentative conclusion would be that netiquettes about online entertainment behaviors are established within the intimate relationship while netiquettes about infidelity are based in broader societal norms held in similar ways by everyone.

H1, which argued that partners develop similar ideas about netiquette, can thus be supported for addictive or entertainment related activities, but should be rejected for most of the behaviors consisting of online infidelity.

In our analysis, we also compared whether the husband or wife were more likely to deem certain online activities more acceptable. We found that husbands were happier than wives were for their partner to view 'adult' web sites (with sexual material). This may be because women are far less likely to view online pornography compared to men (Dutton & Helsper, 2007; Livingstone, Bober, & Helsper, 2005; Weiser, 2000). Therefore, men might be able to make the sure bet that their partner will not view pornography and so the potential for this to happen does not perturb them. In comparison, women might deem it more likely that their partner will engage in this activity and thereby give it a more severe rating. An alternative explanation may be that men approve of their partners viewing pornography more than women do because they see this differ-

ently. Other research also suggests that women are more likely to require mental exclusivity of their partner whereas men are less likely to require this type of fidelity of their partner (Cramer, Manning-Ryan, Johnson, & Barbo, 2000; Shackelford & Buss, 1996; Whitty, 2003a, 2005). Since this study did not examine offline sexuality and infidelity it is unclear if men are less accepting of non-Internet based infidelities than of the online equivalents. Future research should look at gender differences in evaluations of, for example, both online and offline sexual encounters to understand whether gender differences vary according to the medium (e.g. face-to-face vs. Internet) on which these types of undesirable behaviors take place. A third explanation is that in the evaluation of netiquette related to online relationships and entertainment the same processes take place as for the evaluation of the time spent online. Women might consider a certain type of behavior not only less acceptable in their husbands but also in themselves. thus evaluating an activity as problematic independent of which partner undertakes it. Of course, we cannot lose sight of the fact that in an overwhelming majority of couples both partners were unhappy about their partner engaging in this form of communication.

No matter what the explanation for these gender differences might be these findings suggest that H2 was supported for netiquette as regards specific activities; when partners disagree about the acceptability of emotional and sexual infidelity or other potentially problematic online behaviors it tends to be the wife who is more concerned about the behavior than the husband. This supports earlier research by Whitty (2003a) that showed that women were more upset by online infidelity than men. Future research should investigate how marital happiness relates to dissimilarities in partners' social scripts to understand whether or not the internet has come to play an important role in how we experience intimate relationships. It seems women are not only more upset about this behavior when they are the victims, but also feel more strongly that this type of behavior is generally unacceptable.

After having established that most but not all partners within married couples share the same netiquette about activities that might harm the relationship, the second aim of this paper was to understand whether partners developed similar patterns of surveillance of each other's behaviors by using the internet to monitor what the partner is doing online. The findings show that there are surprisingly high levels of surveillance but that the types of surveillance used are quite limited. In around a third of the couples at least one person checked their partner's emails or read their partner's SMS messages without them knowing and in a fifth of the couples at least one the partners had checked their spouse's browser history. While checking emails can be argued to have happened accidentally when the partner left their email open, two other frequently undertaken surveillance behaviors are more clearly intentional. Reading SMS messages is a relatively heavy intrusion of privacy since a mobile phone which is usually carried on the person will need to be taken from the partner for this type of monitoring to take place. The findings did show that similarity in surveillance is quite high. In the majority of couples neither of the two partners monitored the other's behavior, but if one of the partners monitored there was high chance that their partner was monitoring their behavior as well.

Our literature search suggests that research about similarity in surveillance between married partners is scarce. Therefore, we based H3 on the literature which argues for a high level of similarity in other positive and negative behaviors between married couples (Sakai et al., 2004; Shaw et al., 2007). The findings showed that if one person monitors their partners behavior it was highly likely that their partner also monitored their behavior and if one partner did not monitor the others behavior it was likely that this favour was returned, H3 was supported because partners did show similar surveillance patterns.

We further hypothesized that among couples where only one of the partners monitored the other's behavior, the person monitoring was more likely to be the wife than the husband. This hypothesis (H4) was based on the same premise as H2 which argued that women are in general more likely to be concerned about 'risky' or socially undesirable behavior. It was argued that due to this higher worry they were also more likely to check up on their husbands. The findings show that wives were indeed more likely to monitor their husband's behavior than that their husbands were to monitor their behavior. This suggests that the focus on mate guarding should not be solely on men. Moreover, the provision of readily available electronic means of monitoring a partner's behavior might have made it easier for women than it was in the past to monitor how their partner interacts with others.

5. Conclusions

This paper is one of the first to look at the importance of the internet in offline intimate relationships. We asked whether or not certain behaviors were considered taboo and it is clear that the fact that these behaviors take place in a virtual world does not make them more acceptable within marriage. Overall partners seem to have similar ideas about which types of behaviors are unacceptable on the internet and disagreement can be explained by women's higher levels of concern about their own and their partner's behavior. Evidence was provided for both congruence and similarity between partners in a couple, in future research it is important that this aspect is explored for a wider range of behaviors and to understand whether this congruence is linked to marital satisfaction. The offline marital satisfaction literature suggests that greater congruence and similarity between partners leads to higher relationship satisfaction. It also suggests that married couples showed higher levels of congruence and similarity than other unrelated individuals. A replication of this study with people in different types of relationships would give insight as to what extent the findings of this study can be replicated outside the marital

The differences between men and women in terms of netiquette might be explained by research that shows that men have more exposure to the contested behaviors and judge the likelihood that their wife undertakes these behaviors as less high, familiarity with and a lower judgement of the likelihood of a behavior in a partner might both lead to lower levels of concern. Beyond the examination of gender differences, this paper did not delve deeper into what explained participants' concerns about their partner's behavior. We suggest that personal experience with different online behaviors might soften or harden the stance of the person towards their partner undertaking this same behavior. Similarly, to truly understand what leads people to monitor their partners behavior it is important to research what people's estimate is of the likelihood that their partner will cheat on them.

From the findings presented in this paper it is clear that internet users do not shy from taking action when they think their partner might be undertaking activities that they are not comfortable with. The data used in this study does not allow for the conclusion that all surveillance by partners is related to concerns about infidelity. Partners can check up on each other for a number of reasons (Whitty, 2003b; Whitty & Carr, 2006a) and the questions did not delve deeper into these motivations. Whatever the reason for the monitoring, partner surveillance was wider spread than the authors initially assumed, with one out of every three couples having at least one partner who monitored the other partner's behavior using some kind of technological tool. It would be interesting to link monitoring behavior to general marital happiness and to psychological characteristics such as neuroticism. One of the surpris-

ing findings was that spousal surveillance was undertaken more often by wives than husbands. This contrasts with general internet research that suggests that women are less technologically skilled than men (Durndell & Haag, 2002; Hargittai & Shafer, 2006). It seems that they are able to overcome these barriers when they feel their relationship is at stake. This study did not find a type of surveillance that was practiced more by men even though there is ample evidence for such behavior by men offline.

The internet will definitely continue to play a role in individuals' everyday lives and there is no doubt that how the use of this continually evolving technology impacts on offline relationships warrants further study. This study was one of the first to examine what couples expectations are about partners' online activities and how these correspond between the partners and was therefore exploratory in nature. The paper has raised many questions that should be tackled in further research if we are truly to understand the role of the internet in intimate relationships. These studies should without doubt look at how other factors besides gender, such as length of marriage, social class and age of the married individuals, are related to netiquette in intimate relationships and perceptions of online risks. Notwithstanding the relatively narrow scope of this paper, considering the extremely limited amount of work in this area, we believe that its contribution is an important one. We hope that it will serve as a starting point for other researchers to look at these and related issues in this often ignored but very important area of everyday life.

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