

Online Personals: An Overview

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ABSTRACT

Online personal advertisements have recently become an easy, socially acceptable way to meet partners for dates or relationships. Because popular personals systems not only reflect but also have the potential to reshape how people attract one another, date, and fall in love, the design of these systems merits careful consideration. We present a survey of current styles of online personals, including searchable profile listings, personality matching, and social network systems. Finally, we encourage the community to study this booming phenomenon.

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INTRODUCTION

Online personal advertisements have shed their stereotype as matchmakers for the awkward to claim a prominent role in the social lives of millions of users. In August 2003, personals Web sites in the United States drew 40 million unique visitors — half of the number of single adults in the U.S. [8]. (Though chances are not all of the visitors were single.) With that many users, online personals sites clearly host a far more diverse base than the lonely, socially stilted group that, according to the stereotype, populated traditional personal ads in print.

Researchers have studied online friendships and romantic relationships from psychological and sociological perspectives (e.g., [7], [10], [12]), and psychologists and sociologists have studied the personals ads that appear in print publications. To date, however, online personals have been considered only anecdotally. Their careful study is vital for two reasons.

First, as a suddenly popular way to meet partners for dates or relationships, online personals not only reflect but also have the potential to shape how people attract one another,

date, and fall in love. The design of social systems influences the beliefs and behavior of their users; the features of a person that Match.com presents as salient to romance will begin to have some psychological and cultural influence if 40 million Americans view them every month. This influence exerts itself most strongly on the users themselves, but it also spreads into the general population. Because online personals systems affect such an important and intimate arena of their users' lives, designers have a particular obligation to work carefully.

Second, usage data from online personals Web sites provides an opportunity to perform rich analyses of the preferences and behavior of people seeking relationships. This information is intrinsically interesting as social science, but, more importantly, it will inform future designs and matching algorithms to improve the experience of online dating.

BACKGROUND

Although there is little research about online personals specifically, social scientists have produced a wealth of work relating to attraction and dating, and some work specifically about personal ads in print [1, 3]. We will consider some of these findings that are germane to online dating.

Psychologists for decades have studied what characteristics people notice and seek in potential mates. Brehm et al. [4] and Fisher [5] provide an overview of the following factors in attraction: Proximity and familiarity are two of the most powerful determinants of attraction — those whom we see more often, and whom it is logistically easier to see, tend to seem more attractive (physically and otherwise). Physical attractiveness also plays a prominent role. Almost all cultures consider facial symmetry beautiful in both men and women, but preferences for other characteristics, like waist-to-hip ratio in women, vary somewhat with culture. People also irrationally associate other good characteristics with beauty, presuming pretty people to be smart and socially capable even when this is not the case.

People are generally attracted to others who have demographics, attitudes, values, and personality traits similar to their own. (Contrary to the adage that “opposites attract,” homophily dominates human attraction. Most people seek people like them [4, 9].) Online dating systems provide tremendously powerful tools for identifying people who match you in these traits.

Additionally, people are inclined to like people who will like them back — that is, partners who are attainable. It's not that people who are "5's" on the imaginary attractiveness scale dislike more attractive "10's," but rather that the greater potential for rejection (or the potential for the 10's to cheat with an "equal" during a relationship) is a disincentive to feeling attracted to them [4].

Bolig et al. [3] assert in their study of magazine personal ads that "physical characteristics are initially most salient in identifying potential mates." However, it is unclear whether a textual description of physical attributes (e.g., female with an athletic build, 5'5", brown hair) that one might find in an online personal ad carries the same salience as the direct experience of manifest physical characteristics that Bolig et al. describe.

Unfortunately for online dating systems, some important components of attraction remain far from tractable for a computer system. Experiments in pheromonal compatibility show that people prefer people who smell certain ways, likely because they possess genotypes that might make them advantageous partners [6, 11]. Even if we had accurate models of people's preferences in these domains, incorporating this information into an online personals system is not within the capabilities of present technology.

Selling Yourself

Becker [2] analyses people's search for mates in terms of a *marriage market*, in which the participants seek partners to maximize their own happiness or welfare by exchanging what they have for what they want. Each person carries a certain value on the market, which we can consider to be a weighted average of characteristics like beauty, intelligence, social status, wealth, and fertility. Logically, people should seek the best partner they can afford; we would all like to have someone who is a "10," but a "7" can realistically expect only another "7." Not all 7's possess the same mix of qualities. One might make up for lower attractiveness with a greater intellect; one "shops" for the preferred combination of qualities. Indeed, single people who use "formal marriage market intermediaries," such as personal ads or human match-makers, sometimes refer to the process of "buy[ing]-a-boy" or selling oneself as "the right product" [1].

Market models often assume that actors have complete or nearly complete information about the world. Usually, in social environments where one might find a date, this is not true. But online personals systems would seem to provide an ideal example of a marriage market, because they offer so much information about so many choices. (As we noted above, though, it's unclear whether a computer-based profile can capture enough of the salient information to gauge attraction or compatibility.) As such, online personals provide a powerful empirical test-bed for market theories, and the theories themselves provide a framework within which we can consider personals systems. (Marriage markets give us little insight into the actions of individuals,

who likely are not calculating the marginal benefit of one mate over another, but they are more useful for describing trends across thousands of users of online personals.)

ONLINE PERSONAL AD SYSTEMS

Online personals systems usually include personal profiles of users, which document their location, gender, age, physical attributes, race, religion, smoking and drinking habits, self-description, and preferences for these characteristics in a potential mate or date; a private messaging system; and a mechanism for indicating interest without writing a substantial message, variously termed "winking," "eye contact," or a "collect call." In contrast to other systems that support online communities, personals systems usually lack a common forum, where everyone can read what anyone posts.

Profiles

User profiles include a title or pseudonym, constrained descriptors like age and hair color, free-response descriptors, and sometimes photographs. Constrained descriptors limit users to certain categories (e.g., the set of hair colors) or types of input (e.g., numeric for age). Free-response descriptors let the user answer questions with arbitrary text. Some sites give straightforward prompts for free-response descriptors, such as "Describe yourself" or "Describe who you're looking for." Others, such as Spring Street Networks (provider for Nerve.com and other sites), provide less direct prompts: "Best (or worst) lie I've ever told," "Song or album that puts me in the mood."

On Nerve.com, frequent users have become so familiar with common responses to the idiosyncratic free-response prompts that they sometimes make mocking reference to clichéd answers to a question in their own response.

Some new personals sites incorporate personality psychology into their profile-building process; Tickle, eHarmony, and PerfectMatch purport to match their members according to the results of personality tests.

Searching and Matching

Most systems provide both searching and matching functionality. In searching, users specify exactly what characteristics they are looking for. They can search the set of profiles based on constrained descriptors such as age, eye color, and religion, and sometimes by keywords in the free-response descriptors.

In matching, which is slightly less direct, systems pair users by comparing their profile descriptors to the descriptors of others — usually the constrained descriptors, because contemporary techniques for clustering or otherwise identifying similarity work better with clearly defined features than with free text. Different systems apply different weightings to the features of the profiles.

Private Messaging

Online personals systems invariably provide a private channel through which members communicate without revealing their names or regular email addresses. Typically, it functions like a Web-based email client, except that users can write only to others on the same site.

Users write each other with the private messaging system to find out whether they want to proceed to contact via email, phone, or face-to-face interaction. This provides privacy and safety until the users are comfortable with each other.

Although sites often allow free browsing and searching in order to attract customers, most require users to pay for the ability to send private messages. Some sites allow non-paying users to reply to messages from paying users but not to initiate conversations on their own.

eHarmony restricts whom even paying customers can contact. In this system, users can contact a potential date only after the system has matched them with the person based on the results of their personality tests. That is, eHarmony provides only matching, not searching, and prevents communication between people who are not matched by the system.

Additionally, some personals systems offer a form of free contact without a substantial message, variously called an “eye contact,” a “wink,” or a “collect call.” These mechanisms allow a user to express interest in another without formulating a message or, usually, paying for membership. On Nerve, some women are so deluged with collect calls that they indicate in their profiles that they will not respond to them, often criticizing the stinginess of those who do not pay for full privileges but still want a response.

DESIGN OF PERSONALS SYSTEMS

Two conflicting goals face designers of online personals systems:

1. Support users who want to meet a partner with whom they can have a successful relationship.
2. Support the growth of the site by retaining users for as long as possible.

These goals conflict because a user who succeeds in finding a good match will no longer need the site. A system that proves too successful in this sense might not receive the revenue it needs to stay in business. Even a non-commercial system needs to retain a critical mass of users to remain useful. In considering the design of personals systems, we should keep in mind the tension between these goals. We might discover that we can serve one only at the expense of the other.

Similarly, we must consider whether a single design can work for people variously seeking marriage, casual dates, casual sex, and friends. Perhaps a more articulated system for each purpose would better serve each population.

The designer of a personals system chooses to emphasize (both visually and algorithmically) some characteristics more than others. These decisions affect users' perceptions of what is important in others whom they see on the site. Users will perceive a system as more efficacious if its design highlights the characteristics of others that are truly salient to the user (rather than being salient to the technical architecture of the system, or just arbitrary).

Types of systems

Several varieties of personals systems are common. We differentiate among them based primarily on the mechanism that enables users to find one another.

- **Search/sort/match systems.** By far the most common kind of personals system, they provide the profile, search-and-match, and private messaging capabilities described in the previous section. Because they are so numerous, I describe them further by target audience.
 - **Mainstream systems.** Web sites like Match.com and Yahoo! Personals draw a broad base of users from a variety of racial, ethnic, and socioeconomic backgrounds. These sites function as a baseline both demographically and in terms of their design.
 - **Subpopulation systems.** Sites like JDate.com for Jewish singles and Manhunt.net for gay men attempt to serve a specific subpopulation. These sites add population-specific details to their profiles — for example, JDate profiles have an entry for the specific denomination of Judaism, and Manhunt's physical build options include “bear,” a body description unique to gay male culture. Some mainstream sites also run smaller sub-sites for subpopulations.

Other subpopulation systems, like Right Stuff Dating, cater to wealthy or well-educated users. They typically require that members have attended an elite college or meet minimum wealth or occupational status requirements. Sometimes they charge extremely high monthly fees to ensure that their population remains exclusive. VanityDate requires members either to be beautiful, wealthy, or extremely accomplished; rotating panels of existing members screen new applicants.

- **Personality-matching systems.** Sites like eHarmony.com and Tickle.com give personality tests to their users and match them based on research into compatibility of personality features.
- **Social network systems.** These sites, best represented by Friendster.com, are the most recent type of personals system. They encourage users to bring their friends onto the system and then suggest matches between members of their social networks.

DATING WITH ONLINE PERSONALS

Traditionally, people meet dating partners within some context: friends of friends, school, work, the local grocery store or place of worship. This context introduces a certain amount of accountability; if a person behaves badly in a dating relationship, the consequences will likely extend beyond the immediate dyad.

With the exception of the recent and, so far, much less common social network systems, online personals take relationships out of context. More specifically, the only context is the personals Web site itself, which is sparse compared to any of its real-world analogues. The lack of real-world context means that online dates can cut across social networks to connect people who might otherwise never have an opportunity to meet. For users who don't want their friends to know they are dating online, this quality is a boon. It may also make it easier, however, for users to behave badly without social consequences.

Social context (and the problems that might ripple through a social network in case of a breakup) provides an incentive to maintain a relationship. The lack of social context in online dating combined with the easy availability of new partners makes it easier and perhaps more tempting to drop an existing relationship.

Similarly, without a social network to restrain misinformation, exaggeration is rampant in online personal ads. Users exaggerate their own qualities to the degree that they perceive that others in the system are exaggerating [Dan Ariely, correspondence, 2003]. In fact, this exaggeration has become almost necessary: If users fail to exaggerate as much as others, they might be passed over by browsers who are looking for desirable characteristics and find them in more ambitious exaggerators. (These characteristics vary locally, but common candidates for exaggeration include height, weight, body measurements, attractiveness, and sexual prowess.) If they exaggerate too much, their duplicity might be discovered when they meet their interactional partners in person.

CONCLUSION

Online personals are a burgeoning yet ill-understood cultural phenomenon. Because they inherit so much from earlier computer-mediated communication tools, the CHI community has the expertise at its disposal to understand the social dynamics at play in these environments and to improve the experience of using online personals. Because they nonetheless differ significantly from prior tools, it is important for us to use our expertise to this end.

This paper provides an overview; future researchers might consider building detailed models of which characteristics people seek most in online personals. The demographic and behavioral data are a tremendous resource both for scholars of human relationships and for designers of these systems.

A long-term ethnographic study of a small number of users would yield insight into the way individuals integrate online

personals into their dating lives and how the systems affect their conceptions of relationships.

The community might also consider radically different designs. What if users could bid for the right to contact a desirable other, or if they could rate their dates and receive recommendations for other dates through a collaborative filtering system? Perhaps users could seek pheromonally appealing partners, finding chemistry before the first date.

Clearly, new designs in this domain pose both technical and social hurdles. The social benefit of a highly successful system, however, would be immense.

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REFERENCES

1. Ahuvia, A.C., & M.B. Adelman. "Formal Intermediaries in the Marriage Market: A Typology and Review." In *J. of Marriage and the Family* 54 (May 1992): 452-463.
2. Becker, G. *A Treatise on the Family*. Cambridge, Mass.: Harvard University Press, 1992.
3. Bolig, R., Stein, P.J., & P.C. McKenry. "The Self-Advertisement Approach to Dating: Male-Female Differences." In *Family Relations* 33 (1984): 587-592.
4. Brehm, Miller, Perlman, and Campbell (2002). *Intimate Relationships 3 e*. New York: McGraw-Hill Higher Education.
5. Fisher, H. *Anatomy of Love: A natural history of mating, marriage, and why we stray*. New York: Fawcett-Columbine, 1992.
6. Jacob, S., McClintock, M. K., Zelano, B. and Ober, C. "Paternaly inherited HLA alleles are associated with women's choice of male odor." In *Nature Genetics*, 30 (2002): 175-179.
7. Lea, M., & Spears, R. Love at first byte? Building personal relationships over computer networks. In J. T. Wood & S. Duck (Eds.), *Under-studied relationships: Off the beaten track* (pp. 197-233). Thousand Oaks, CA: Sage, 1995.
8. Mulrine, A. "Love.com: For better or for worse, the Internet is radically changing the dating scene in America." *U.S. News & World Report*, Sept. 29, 2003.
9. Shibazaki, K. & K.A. Brennan (1998). "When birds of different feathers flock together: A preliminary comparison of intraethnic and inter-ethnic dating relationships." *J. of Social and Personal Relationships*, 15, 248-256.
10. Walther, J. B. "Computer-mediated communication: Impersonal, interpersonal, and hyperpersonal interaction." In *Comm. Research* 23, 3-43, 1996.
11. Wedekind, C., Seebeck, T., Bettens, F., and A.J. Paepke. "MHC-Dependent Mate Preferences in Humans." In *Proc. Biological Sci.*, vol. 260, no. 1359 (June 1995): pp. 245-49
12. Wellman, B., & M. Gulia. "Net Surfers Don't Ride Alone: Virtual Community as Community." In B. Wellman (Ed.) *Networks in the Global Village* (pp. 331-67). Boulder, Colo.: Westview Press, 1999.