



Figure 1 How Chemistry.com represents its functionality. The first three phases are facilitated by specific website functionality. The last phase, “The Date Part,” has no corresponding online feature assigned.

Finding potential partners online has become very popular - and lucrative. Sixteen million Americans have used an online dating website [6]. The matchmaking industry in the US has been valued at \$1 billion per year; online activities are 50% of that total [8]. A recent Pew Internet and American Life survey reported people have a broader understanding of “online dating” than just posting and searching for profiles. “Online dating” can include starting and ending relationships via email introductions and IM flirting, as well as planning actual dates using online services [6].

Our interest in online dating is that it is *mixed-mode* [2]. Unlike other forms of computer-mediated communication, the goal is to transition from computer-mediated connection to in-person contact - matchmaking online is usually a prelude to face-to-face (FtF) encounters. Our focus is on online dating services, and how they can better support the activity of planning dates. We first outline current models of dating websites and their users. Second, we present results of in-person field interviews with online daters. Finally, we offer a summary of the design spaces in which we are working as we develop tools to aid in the complex process of moving from matching to meeting.

Background

Elizabeth Churchill is the leader of Yahoo! Research’s Media Experience Research (MER) team, an interdisciplinary group that studies the production and consumption of rich social media on the internet. Elizabeth Goodman, a PhD student at UC Berkeley’s School of Information, joined MER from June through August of 2007. This project uses online dating as a case study in how information services could broker

communication, especially supporting transitions from online to offline acquaintance.

Method

Website genres We assessed the functionality and market positioning of 30 online dating websites. We included both sites targeted at dating and less directed social spaces that also can connect compatible people.

Dating practices From January to July 2007, we interviewed 22 current and past online daters. These semi-structured interviews concerned the definition and experience of the work of dating — including aligning schedules, choosing locations, navigating to selected locations, and producing a “good first impression.”

We chose participants for diversity of viewpoint and experience, and not for statistical resemblance to the larger population of online daters. Our sample thus far is gender-balanced, and includes varied income levels – from a substitute teacher to a financial analyst. About half of the participants are current or past Yahoo! Personals users. Participants’ median age has been 37, making them unusual: only 11% of Americans aged 30–39 have dated online [6]. Yet in an age of later marriage and more frequent divorce, we see this study as a window into the concerns of a demographic that is very active in the dating scene, despite not fitting the never-been-married, *young free & single* stereotype.

Results: Website Genres

Using both reference both to dating industry blogs such as “Online Dating Insider”¹ and to academic analyses of website genres [1], we compiled a list of online dating

¹ <http://onlinedatingpost.com/>



Figure 3 Yahoo! Personals divides daters into “casual” and “serious” categories. Serious daters have a different suggested functionality set, which comes with an increased subscription rate.

services. This list includes dating-focused websites (e.g. Match.com) as well as social spaces that facilitate dating (e.g. Myspace). It also includes more open dating sites (e.g. OkCupid, in which users generate the compatibility tests.) While of course not exhaustive, we include examples from each site type in Fiore and Donath’s taxonomy [1]: search/sort/match, personality-match, and social networks. Fiore and Donath base their taxonomy on how sites enable users to find each other online. Other studies of online dating have also focused on “online” action. Topics range from self-disclosure [2], to economic “marriage market” accounts [4], to deception and “ground truth” [3]. Social science research has also established that online dating assumes offline contact [2].

In response, we introduce a new complementary taxonomy based on how online dating services facilitate offline sociality; Figure 2 maps relationships of targeted dating functionality to facilitation of FtF contact. There are four main types of approaches – “meet soon,” “maybe meet,” “possibly meet,” and “never meet.” The blue boxes represent “meet soon” interactions. For example, mobile matching systems such as MeetMoi or Proxidating² arrange immediate meetings between compatible people in proximity. However, these “meet soon” applications are an emerging genre, not currently widely used in North America and Europe. The most popular online dating sites – shown in orange – represent a “maybe meet” approach to dating. They provide many ways to represent oneself and search for others, but they provide few tools to help users move online chat to a first date. “Relationship brokers,” like eHarmony, may even impede FtF contact until paired

² <http://www.meetmoi.com>, <http://www.proxidating.com>

users progress through “guided communication” exercises. Social spaces such as MySpace or Cyworld are very popular internationally. They provide a less “programmatic” approach to facilitating sociality than online dating sites. While it’s clear relationships in these spaces sometimes move between online and offline contact, this is not necessarily designed-in or expected – hence the “possibly meet” designation.

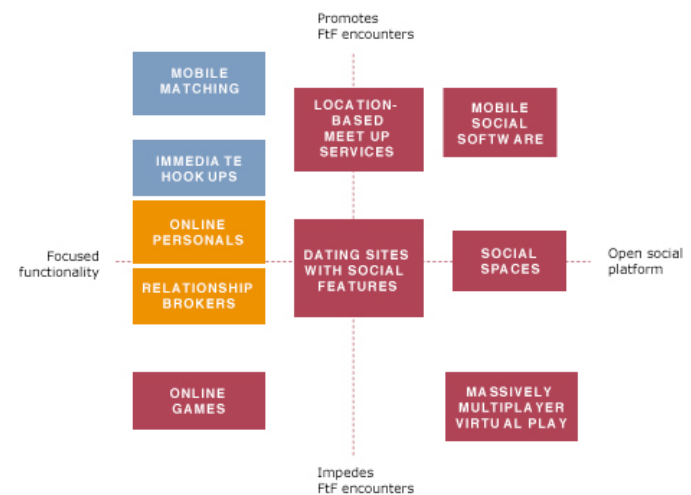


Figure 2 Genres of online dating services. Blue squares are services that actively facilitate in-person meetings, Orange squares represent traditional personals-style applications, which broker introductions between compatible people online but do not explicitly support the work of meeting F2F. Most of the websites we examined attend exclusively to online matchmaking and communication (see Figure 1).

Finally, casual online games (such as poker) or massively multiplayer online games (MMPOGs arguably discourage offline contact - the “meet never” condition. These settings allow rich online connections and

Intensity	Design exploration
Effortful mobility	Lightweight, temporary joint calendaring, event invitation and planning; collaborative mapping and route planning; profile and activity-based joint recommendations as conversation starters
Structured activity planning	
Exploration and adventure	
Management of alternate responsibilities	
Personal communication and accessibility	Mobile alerting and messaging; temporary withheld mobile phone numbers
Comfort and risk	Profile validation; mobile tracking and safety

Table 1 Exploring the design space of innovation for support of moving from the online match to the first meeting. We propose areas where

relationships (ie, "guild member"), but there is no intended or supported move to offline meeting.

Turning to online dating sites in particular, sites often describe their users through relationship goals. Most differentiate "casual" from "serious" daters [5]. "Casual daters" – those seeking less commitment – supposedly invest less effort. "Serious daters" – those seeking long-term relationships or marriage – are imagined as more willing to invest time and money (see Figure 3).

Results: Interviews with online daters

The dating cycle Figure 4 illustrates the phases involved in the process of dating: matching, meeting (FtF) and resolution³. Participants described the activities that culminate in the "the first date", which is the litmus test of potential compatibility. One thirty-year-old female online dater said, *"On paper it's perfect, but if you don't have the chemistry in real life, it's pointless."*

In the matching phase, users create profiles, search for people, then initiate acquaintance through the dating website with a small token (a "wink") or a message⁴. They then move to personal email, chat, text messages, or telephone conversation, and mutually decide whether to move to the next stage. Establishing an agreed-upon medium for contact proves to be for some a first test of compatibility – for example, someone may like IM while others feel it is too

³ Patterns of meeting and mating vary culturally. For example, Indian "matrimonials" suggest a different role for families in coordinating first-time meetings [7].

⁴ Due to space limitations we do not here address deception in self-presentation.

intrusive. Most daters set up dating-specific email addresses to establish content separation from the rest of their lives and/or preserve anonymity.

Moving to meeting includes technology-mediated and FtF communication. Daters negotiate when and where to meet. They typically use local information websites to research locations and directions. They get ready, travel to the date (sometimes using printed maps and GPS systems), and only then speak FtF. Few people reported micro-coordination using cell phones to navigate or fine-tune timing.

After the first date, people decide whether to meet again – resolution. A telephone call, email or text message may communicate that decision – or the parties may suddenly cease all contact. People were commonly mystified as to why they had not heard back from people after dates that they thought had gone well. Assessment mismatches like this lead people to be wary of other daters – and sometimes of dating sites and their ability to find matches.

Different intensities or degrees of effort apply to each of the phases in Figure 4. Individuals approach each phase differently, and bring different levels of focus and effort to activities and negotiations within them. Since popular online dating sites do not support arranging that all-important first date, we spent considerable time addressing how daters manage this. Activities include: scheduling with the intended date, and potentially also other dependents; establishing location(s); activity planning; impression management (e.g. deciding what to wear); navigating to the location; and recognizing the person.

Planning styles People take multiple approaches to planning, both in the detail of their plans and the advance notice they require. Those with other commitments (e.g., demanding job, children) act less spontaneously than they'd like to. One participant, a 25-year-old male working 12-plus hours a day, told us, "I don't have the luxury of being disorganized anymore." He plans dates ~10 days in advance, often going to four or more websites to research locations.

Geographic limits Mobility choices varied. One dater will travel 500 miles for a first date. Another refuses to date anyone who lived outside a 20-minute radius. A kind of calculus of proximity is used: participants base dating decisions on geographic distance, temporally variable traffic levels and availability of public transport. Socio-cultural assumptions can sometimes trump these considerations; one male 49-year-old online dater tries to minimize commuting time but still rejects people from his own neighborhood, saying "generally they're not mature enough."

Communication and comfort zones Participants enact boundaries between themselves and the near-strangers met online by withholding personal information. Some draw the boundary at the mobile phone number, wary of unwanted contact after a brief encounter: "I would never give someone my cell phone number. Wow, I don't want someone calling me later." (female online dater, 37). Others prioritize immediate inconvenience over such concerns: "Sure I give out my cell phone number. I'd prefer not to, but you know if something comes up and they're going to be late, I'd like to know...if the date goes badly I figure I won't pick up calls from them." (female online dater, 41).

Location choice The first date is a time of excitement and caution. In planning first dates, many try to minimize personal risk. All our interviewees only meet initially in busy public places. Choice of place is also a form of self-representation. One female online dater suggested that making a "creative date" is "part of the fun." Another female online dater is more particular: "Meeting at a coffee shop is so cheesy. It's like meeting at a bar. You just **don't**." Some of our participants aim not for creativity but comfort. They refuse (as one 57-year-old female dater said) to visit "unfamiliar territory." Others use first dates as opportunities for exploration: "I have spent a lot of time finding restaurants. I may as well make this fun for me and an excuse to explore places I haven't been. Then even if the date doesn't work out you found a new place to eat." (male online dater, 42)

We characterize our participants' practices and preferences from *low intensity* to *high intensity* based on how they understand and orient emotionally to the work of dating. Figure 5 illustrates the mapping of experience to what we have named "intensities of effort." Contributing factors are: willingness to travel, willingness to research locations, and necessity/willingness to juggle complex, committed schedules with other people (e.g., children). Figure 5 identifies the areas of effort (highly similar participants are singly represented); the rightmost person shows greatest overall intensity. These are not static archetypes. People described different levels of intensity based on current life demands and past experiences, often reducing effort after disappointments. For example, one regularly flies across the country, but won't make long-term plans.

Conclusion

This research is ongoing, but we have established some preliminary insights. First, although people understand the term “online dating” to be a broad term that encompasses getting offline, as service designers we may be inadvertently narrowing the design space of services we provide by focusing too much on the online component of the process. If ascertaining physical “chemistry” is a major step in the activity of online dating, then dating sites should support physically meeting up. Second, interviews with daters have led to the more detailed elaboration of the phases involved in dating, and to the concept of individual differences in “intensities of effort” as a characterization of different kinds of daters. This concept applies whether daters are “casual” or “serious”. Designing facilitative tools may benefit from changing the view of daters as either relationship-minded “serious” daters or fun-loving “casual” daters. We are beginning to link areas of design exploration to the different areas of effort that are part of meeting phase (see Table 1).

Helping people stay within comfort zones, express creativity, and manage complex schedules are key parts of “online” dating. Complementing existing support for stated matchmaking intentions (profiles and ‘want to meet’ lists), our typology examines day-to-day practices and decisions around *meeting up*. We have taken our first step in the elaboration of new applications and services for planning and managing initial meetings. Our intention is to address and match personal and shared (or not) preferences for intensities of effort in planning, mobility, and communication/information use. In this regard we are moving our design space from supporting the

elaboration of intention to stimulating the potential for shared action.

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Coordination intensity and relationship intent

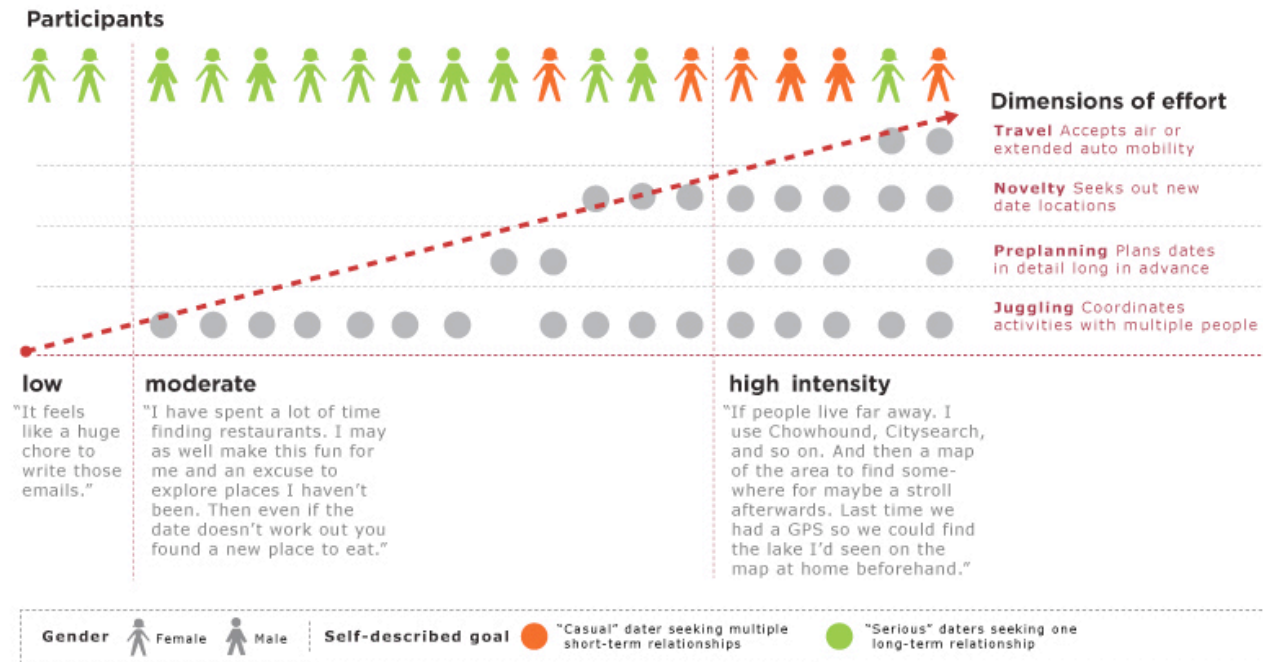


Figure 5 Rising intensities of effort in coordinating dates in our participants. We examine the practices of each participant through intensity of mobility, information use, and communication. "High intensity" daters may be people who plan a vacation to meet a potential partner. Or people who have so little time they must plan dates a month in advance. Or people who invest hours in searching out a new and exciting date location. "Low intensity" daters are those who are spur of the moment, who limit activity to nearby their home or work, and who prefer to stick to familiar places. Note that some of the highest-intensity daters would be classified as "casual" daters.