Couples' Communication Channels: What, When & Why?

Henriette Cramer Yahoo Labs Sunnyvale, CA henriette@yahoo-inc.com

Maia Jacobs Georgia Institute of Technology Atlanta, GA mjacobs30@gatech.edu

ABSTRACT

An overwhelming variety of communication channels are available to consumers. Here, we present an overview of the aspects that need to be accounted for when intimate partners select a communication channel. We present interviews with 10 cohabiting couples (20 participants) and an 8-day diary study of communication and coordination. Using reported instances of within-couple communication, triggered by relationship-oriented or practical household needs, we identify why particular channels are chosen or sequenced. Extending media richness critiques, we identify additional factors that influence communication choice such as intimate knowledge of the others' habits, possibilities to add emotional meaning, and couples' shared needs as an identifiable unit. We also extend the notion of network effects on channel choice, and discuss the ecology of channel, networks, devices and device settings involved between partners. Finally, channel choice is not an all-ornothing game; multiple channels can, and must, co-exist.

INTRODUCTION

The number of communication channels and services available on computers as well as mobile devices is enormous. For instance, in a sample of Android app usage with 4,145 users between Aug 2010 and Jan 2011, Böhmer et al. [1] found 881 communication apps in active use. McGregor et al. found similar variety and sequential usage of communication apps in a qualitative iPhone screen capture study [5]. These findings raise the long-standing question of how users pick and choose between the communication channels that they have available to them [3,4,6].

Using interviews and a diary study with 10 cohabiting couples (20 individual interviews, 127 diary entries from 19 participants over 8-days), we discuss the intricacies in channel and app choice when the sender and recipient have intimate knowledge of each other. We describe which channels they reported using, and the factors that influenced

Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for components of this work owned by others than ACM must be honored. Abstracting with credit is permitted. To copy otherwise, to republish, to post on servers, or to redistribute to lists, requires prior specific permission and/or a fee. Request permissions from permissions@acm.org or Publications Dept., ACM, Inc., fax +1 (212) 869-0481.

Copyright 2015 held by Owner/Author. Publication Rights Licensed to ACM $\,$

channel selection when communicating with each other when apart. We found that all couples used a variety of channels to communicate with each other. We provide evidence that a multitude of factors, beyond characteristics discussed in the literature, influence why couples pick a particular channel. We extend the notion of media characteristics to allow for consideration of the ecosystem of the networks, devices and the particular apps involved in a communication sequence. We focus on the influence of their affective bond and needs to communicate and reciprocate affective value; their adaptation to intimate knowledge of habits and preferences, and to context changes to avoid issues. We further elaborate on especially the relationship and affect-oriented aspects of channel choice within this context and channel switching.

RELATED WORK

Relationships are maintained through communication via a multitude of channels. O'Hara et al. [7] describe how relationships are performed using small, continuous narratives, mediated by the features of messaging platforms. Channel properties alone, such as media richness, however poorly predict channel *choice* and neglect social influence and preferences [3,4]. Even when a service is supposedly designed for a specific purpose, users may not necessarily choose it over other channels. For example, while complex coordination tools exist, people often use more open channels (texting, calls, emails) as they do not curb the conversational process [8].

Media synchronicity theory [3] posits that channel capabilities should match individuals' needs to both convey information and to converge into shared meaning. It identifies five media capabilities: symbol sets (e.g. text, parallelism (simultaneous transmission), transmission velocity, rehearsability (e.g. fine-tuning), and reprocessability. The theory predicts that combining multiple media likely improves communication. It however focuses most on fit of a type of channel for the task completion process, not finer-grained choice between, for example, different types of textual messaging. Loyalty to a specific platform is affected by its user experience as well as network externalities [10]. In addition, Church and Oliveira [2] find tradeoffs, for example WhatsApp's perceived benefits included low cost, sense of community and immediacy, but SMS was seen as more reliable and privacy preserving. We however will illustrate the necessity to extend such channel characteristics perspectives in light of the more complex ecosystems of type of channel,

specific app(s), device platforms and individuals' device settings; but also the affective needs in intimate settings.

Using a case study of three professionals, and their use of email in specific, Jung and Lyytinen [6] propose further work from an 'ecological' perspective in which users make a channel choice through a process of exploring their surroundings, and then picking the medium which affords achieving a particular communication goal. distinguish the dimensions of media characteristics, social influence, and communication context. Here, we further extend their perspective by focusing on relational and affective aspects. We use a relationship-oriented rather than a work task setting, and provide an overview of those factors we encountered within a sample of couples such as focus on relationship, emotional meaning, couple's shared identity and habits. This relationship-oriented approach may help to provide better communication tools for couples in the future that consider their unique, shared and individual, contextual needs. Rather than focusing on couples' conflicts as in [9], we explore how different channels support couples' needs in a broader light.

METHOD

Ten couples (20 participants) from the San Francisco Bay Area were recruited through Craigslist and social media. 7 Female/Male couples participated, 1 F/F, 2 M/M. All were cohabiting, some lived with children, family or roommates. They had been together from <1 to 10+ years. Ages ranged from 19-60, with varied socio-economic backgrounds. They ranged from tech-enthusiasts to those who resisted buying a smartphone. As a qualitative study, this sample is not meant to be 'representative' but to provide insight into varied practices.

Interviews were individual (1.5-2 hours per person) and transcribed. Interviews focused on devices and services used, daily routines, and sharing between the couple. Here, we focus on why certain communication channels or services were used. The couples also took part in a followup 8-day diary study, asking for both instances of communication and coordination that day between the couple and reasons why they picked a particular channel. Participants were compensated \$10 per diary entry. 19/20 participants provided diary entries (3-8 per person, mdn=7, M=6.2). In total the 125 diary entries provided 65 instances related to coordination, and 107 other communications. Over 500 interview fragments from the first 10 interviews were inductively categorized by the authors until full agreement was reached. The other interviews and the diary entries were used for validation to see whether further extension would be necessary. The clusters related to channel selection were compared with related work.

RESULTS

We first outline the variety of channels used, and the triggers for in-couple communication. We then elaborate on the reasons why the couples picked particular channels.

Channels used

The 20 couples used a variety of channels, including face-to-face, calls, text/iMessage, Google HangOuts, various email services, Skype (messaging, calls) Facetime, Facebook (Messenger, posts, tagging), Snapchat, Instagram, Twitter, WhatsApp, WeChat, Groupme, physical notes/post-its, Calendars, Life360, Evernote, Grocery lists apps, Yo (justyo.com), GroupMessage, and Dropbox.

In line with media synchronicity [3], single goals were sometimes reached through a multitude of channels "On Friday [Partner] did a quick lunchtime stop at the store and took pictures, which she attached to an MMS. We then chatted using Google Chat (she was at her workplace) then when I arrived I used FB [Facebook] chat to let her know her I was there (because FB chat is what we use everywhere else). When we were there we referred to our Evernote [shopping] list"-P12

Automatic & low effort channels

Underexposed in earlier media choice work, systems sometimes perform pre-set actions on users' behalf. One participant for example used Life360, a family locating and messaging app, to automatically send her partner notices of departure/arrival. This presents a promising avenue for systems that integrate or pick channels on behalf of users – as well as the interpretation of what these automatic messages mean to the 'sender' and receiver. This is related, but contrasted from, low-effort, but still active effort by for example sending a Yo [mobile app, only sends the word 'Yo']: "Because I was exhausted and didn't even feel like communicating explicitly."-P11. The Yo has to be interpreted by the receiver, but also expresses active 'thinking about you'.

Communication triggers and needs

The communication cases could roughly be divided into relationship, affect-oriented communication and fulfilling practical (household) purposes.

Relationship/emotionally-salient instances included 1) 'Just for you' cute or silly content that was considered inappropriate for others: "a lot of things I send her is like bold and funny and they're just for her only"-P8. 2) Emotionally salient moments they wanted to share with their intimate partner, either big events: "I got this award in my class [...], where I can't even hold it in, I have to tell him"-P1, or more mundane occurrences: "... it was so cute, [baby] been sucking on his thumb, [...] I would take a picture of that and send it to him"-P5. For these instances, preserving a sense of private, intimate or playful conversation appeared most important when picking a channel.

Practical needs-oriented instances focused on coordination 1) Planning, routines, deviations and general situational awareness "Checking on each other's location when we were shopping in Ikea"-P17, or ritual, habitual calls at for example the end of the workday. 2) Household goals: "now

we're looking at houses we'll send each other house...we liked"-P9.

Quite interesting were mixtures of practical and emotional needs: 3) Safety "I went out and I was home really late and I got very drunk and I was really scared [...] so I Skyped him"-P9. For these instances, reaching their partner in a timely, reliable manner was crucial – but just as important is inspiring confidence in a partner from afar and feeling safe to communicate in a sensitive and private situation.

Representation as a couple For external communications, however, channels had to fulfill an additional need. Couples wanted to send messages that appeared to originate from them together as one unit (e.g. invitations), but also sometimes 'pretended' to be their partner when tasked to deal with a household issue (e.g. emails on orders in one name). In some cases, one partner was, whether or not by personal choice, the custodian of a channel "he refuses to be on facebook, so I show him funny things that his sister puts on facebook a lot"—P1.

Channel choice

Not surprisingly, as cohabiting couples, most participants preferred face-to-face communication. Tools were however used at home too, for convenience: "I'm usually up here [...]When I'm not down there relaxing or family time [...], she will text me. That's our main communication, rather than her trudging up here or yelling"—P6.

For communication while apart, our couples considered the channels they had available to them in the current context of both themselves as sender and their partner as recipient. Senders made tradeoffs between their needs, channel properties with the message to be conveyed, their own context, and their perception of the other's contextual preferences. However, especially apparent in this setting of intimate partners were the needs in communicating and reciprocating affective value, adapting to intimate knowledge of the other, and anticipating changes that would make combining or switching channels more appropriate.

Affective value

For couples, the emotional value of a channel was more salient than discussed in earlier work in other contexts. When we take the channel properties from existing work such as media synchronicity [3], we see commonalities, but also necessary extensions to account for nuances not previously identified. The possibilities to change content's affective meaning by using a particular app played a role much beyond symbol sets and reprocessability as identified in media synchronicity [3]: "I would Snapchat her like if I had a photo and I make it funny, then I'd send it to her. Snapchat's really easy to make it a funny drawing"-P8

Knowing that one's partner was engaged and moved by a message was important to our participants. Couples were specifically interested in not just sharing a particular type of content, but even more so in their partner's affective reaction: "I want the reaction of him being entertained by [funny content]" -P1. Shared traditions emerge and one couple, for example, had the habit of sharing hand-written notes or drawings, "its more like, touching. It hits you harder"-P10. This extends social influence as discussed in [6], and also adds a useful distinction to be made between social-emotional meaning within and outside the couple. Perceived content quality and social standing would influence whether any communication visible to the outside world (e.g. Facebook posts) would be appropriate.

Intimate knowledge of the other

Understanding each others' context and needs was crucial. Our couples tried to empathize with recipients' known preferences and context, but individual preferences can be trumped by urgency. For example, "Texting is actually more immediate, or more, 'I really need your attention right now' [...] I hate texting so we don't do it that often"-P1. Knowing each others' habits, in terms of the partner's activities at a particular time of day and the constraints at their expected location (e.g. workplace rules): "Our understanding is we use google hangout during work hours since I can't access FB at work, but I do have access to Google"-P11

Participants dealt with each others' 'known imperfections' and, for example, used multiple channels to reinforce messages: "he forget so I'll just be like, 'I'm going to call you and I'll tell you and then I'm going to send it to you because I don't trust you for finding the correct brand of brownies" –P9

Changing & combining channels

Knowledge of the other also influenced sequencing of channels, as outlined below. Something not yet adequately addressed in work focusing on media properties are the intertwined effects of the ecosystem of apps, combined devices, and network involved. This went beyond effects of network externalities as addressed in [10]; participants also considered sender-receiver platform combinations within the changing context of the other. Focusing on couple conflict, Scissors and Gergle [9] found that couples switched channels for reasons such as conflict escalation, managing one's emotions, and resolution attempts. In our non-conflict setting, switching mainly occurred for more practical reasons:

- Reinforcing, such as in the brownie example above
- Resolving channel issues together: "[We] Chatted in Google hangouts, figured out what was wrong with Yo", "We figured out that Yo has been working fine and that [partner] had all app notifications other tha[n] Facebook turned off on her phone. So we may use Yo more now"-P12.
- Avoiding issues or potential conflict, dealing with (anticipated) contextual changes. Sometimes things would have to wait to avoid annoyances: "it's just too much [...], I can't do it in a text, so I called her. There

was one piece that was urgent but the rest waited until I got home"-P6 or had to be escalated before issues arise, often due to urgency/non-response: "he's really busy at work, so he didn't email me back so then I call him [...] I think I gave him an hour. Normally if he's going to respond, then he'll do it quickly"-P4

Note that couples didn't necessarily prefer to sequence multiple channels: "It was weird to move between MMS, google chat, and Facebook chat. [...] my phone deals with all [...] equally well, but it would be best if there was one service that supported images and text reliably and was not blocked at [her] workplace."-P12. However, sometimes (but certainly not always) the combination of channels in itself communicated importance and, as such, added meaning.

DISCUSSION & CONCLUSION

Users can pick from an overwhelming amount of channels. Our couples considered many tradeoffs while deciding which channel(s) would best support their communication needs, and moved between channels. While models of channel choice exist, they did not capture all patterns that emerged in the instances shared by our couples. Jung and Lyytinen [6] mention the role of social influence and context, but it is useful to distinguish between senders' experience of their own context, and their consideration of the recipient. Couples were especially sensitive to affective effects they had on their partner, and considered their intimate knowledge of the other's context in a more elaborate manner than expected from task-oriented models that focus on channel fit [3] rather than choice. Couples also shared types of communication reserved for their partner alone that had to be especially safe, immediate as well as intimate, illustrating the importance of using varied, specific research settings such as couples in this work. We also show that couples' channel switching in conflict situations [9] is motivated differently than switches in the non-conflict situations addressed in this study.

Our findings focused on channel properties, build on the notion of assessing capabilities rather than services as a whole [3] and consideration of network externalities [10], but adds that we should rather focus on the intertwined effects of network, apps' features, device platforms and settings on both sender and recipient's ends – as well as the knowledge that sender and receiver have of each other.

Channel choice is not necessarily an all-or-nothing game. It is crucial to note that using multiple channels can also add meaning, and emphasize urgency or importance. Developers can tweak their services to ensure that a specific type of channel works for a diversity of content, and devices, to be a good fit for specific situations. They

however cannot control contextual externalities, couple's traditions, nor another app simply already being open on the screen. The intimate context of couples provides opportunities for more playful and affect-focused channel design – especially in communicating emotions, care, and allowing a richer reciprocal understanding of the other's emotional engagement with, and appreciation of, your message. New apps should not focus on being the end-all of communication, but rather understand how they can add to, the myriad of options that users already have within their social context.

ACKNOWLEDGMENTS

Big thanks to our couples, and Yahoo colleagues Kevin Cheng, Sukhada Jog and Yi Huang for their help and contributions.

REFERENCES

- 1. Böhmer, M. Hecht, B. Schöning, J., Krüger, A., Bauer, G. Falling asleep with Angry Birds, Facebook and Kindle. *Proc. MobileHCI'11* (2011), 47-56.
- 2. Church, K., De Oliveira, R. WhatsUp With WhatsApp? Comparing Mobile Instant Messaging Behaviors with Traditional SMS, *Proc. MobileHCl'13* (2013).
- 3. Dennis, A., Fuller, R., Valacich, J. Media, Tasks and Communication Processes: A Theory of Media Synchronicity, *MIS Quarterly* 32, 2 (2008), 575-600.
- 4. El-Shinnaway, M., Markus, M. (1997). The poverty of media richness theory: explaining people's choice of electronic mail vs. voice mail. *IJHCS*, 46, 443–467.
- 5. McGregor, M., Brown, B., McMillan, D. 100 days of iPhone use: mobile recording in the wild. *CHI'14 Extended Abstracts* (2014), 2335-2340.
- 6. Jung, Y., Lyytinen, K. Towards an ecological account of media choice: a case study on pluralistic reasoning while choosing email. *Information Systems Journal*, 24, 3 (2014), 271-293.
- 7. O'Hara, K., Massimi, M., Harper, R., Rubens, S., Morris. J., 2014. Everyday dwelling with WhatsApp. *Proc. CSCW'14* (2014), 1131-1143.
- 8. Schuler, R., Grandhi, S., Mayer, J., Ricken, S., Jones, Q. The doing of doing stuff: understanding the coordination of social group-activities. *Proc. CHI'14* (2014),119-128.
- 9. Scissors, L. Gergle, D. "Back and forth, back and forth": channel switching in romantic couple conflict. *Proc. CSCW'13* (2013), 237-248.
- 10. Zhou, T., Lu, Y. Examining mobile instant messaging user loyalty from the perspectives of network externalities and flow experience. *Computers in Human Behavior*, 27 (2011), 883-889.