Co-Customizing the Future of Work

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ABSTRACT
In this position paper, I revisit some of my research on messaging apps to illustrate the value of software customization in mediated communication, and I speculate about how the future of work may benefit from highly customizable communication and collaboration systems. I summarize takeaways from some of my research on messaging apps where people in close relationships engaged with co-customizations (i.e., collaborative customizations) to express shared identities, support secret codes and micro-cultures, and create playful interactions. I invite researchers and designers of communication software for teams and collaborative systems to consider what opportunities co-customizations may bring to tailor teams’ mediated interactions to their own customs, processes and micro-cultures.

KEYWORDS
Co-customizations, messaging apps, cmc, communication software for teams, future of work,

1 INTRODUCTION
The COVID-19 pandemic changed the way we work forever, with more flexible distribution of time between remote and office work, and the normalization of meetings and conferences across time-zones. While this “new normal” opened up great opportunities for remote collaborations, it also brings the risk of limiting collaborative work to the technical capabilities of the software we use to connect. I believe that the more we depend on technology to collaborate and communicate with colleagues, the more power the developers and companies have over the way we mediate our work. I want to re-balance this power relationship, and I believe that software for mediating communication and collaboration should provide much more room for teams to adapt it to their culture and their way of working rather than aim at offering the most “optimal” (but generic) experience for all users.

In my previous research I studied how users of messaging apps perceive a lack of control over the way they express themselves and regulate boundaries online, as well as how they try to control their apps so that they better fit their communication needs and customs. For example, users may adopt multiple similar apps to distribute contacts and set boundaries between them [4]; they may struggle with different affordances for expression across apps and leverage customizations to preserve consistent forms of expression [1], and they might fail attempts of migrating from one app to another because of differences in functionality between the old and new app, missing access to important contacts and losing a sense of where to communicate with whom [2]. I am interested in continue researching how mediated communication technologies limit and shape the way interact online and what opportunities can we enable to grant them more control over the mediating software, extending these questions from personal communication to both collaboration and communication in work contexts.

In this position paper, I briefly mention takeaways from my previous research on messaging apps in the context of communication in close relationships, and propose questions to guide a discussion about how the future of work could benefit from designing for increased control of the software that mediates our communication and collaboration.

2 CO-CUSTOMIZING MESSAGING APPS
In an interview study with “customizers” of messaging apps, we learned about how users incorporate customizations into their relationship maintenance practices [1]. We found many examples of participants expressing their individual identity through customizations, such as adding meaningful emojis next to their name in Slack, or consistently using Telegram stickers they identified with. More interesting, some customizations expressed shared identities, especially when they allowed all members of a conversation to change its settings. For example, two friends replaced the default shortcut to the thumbs up emoji 🤠 on their Facebook Messenger conversation for the bicycle emoji 🚴 because they both enjoyed cycling and they talked about it frequently. Another pair of friends changed their nicknames on Facebook Messenger, only in the conversation with each other, with references to anecdotes and inside jokes that only made sense to them. While typical customizations are controlled and seen by individual users (e.g., if I change the background of a group chat in WhatsApp, only I can see it), the examples above illustrate customizations with “shared ownership”, where all contacts involved in a conversation can change them collaboratively. Those are what I call “co-customizations”, and I believe they offer exciting opportunities for expressing shared identities and controlling the placeness of an app.

In the context of personal communication, co-customizations can help create “mini communication places”[4] within an app reflecting the intimacy of a relationship in the interface itself: “I like changing the chat color and the default emoji [in Facebook Messenger], it’s like a sign of closeness and intimacy. Like, here are my actual friends, people I talk to on a regular basis. It creates a differentiation from the default blue, the default [Facebook] “like” thing” [1].

In organizational contexts, co-customizations can help manifest and influence the norms and culture particular to a team. For example, many participants reported adding custom emojis to Slack that evoked jokes, anecdotes, customs and even rivalries that were familiar among classmates and colleagues. A participant also explained how she had customized the Slackbot, a simple chatbot that detects keywords and responds with a custom message, for promoting the use of inclusive language in the workplace.

Co-customizations allow users to persist references to their shared identity in the interface itself. They provide means to say
“this is us” beyond the content of conversations, which I believe can strongly contribute to a sense of belonging in online spaces.

3 AUGMENTING APPS WITH CO-CUSTOMIZATIONS

Very few apps offer co-customization examples, and I wanted to further study the role of co-customizations in everyday communication. To this end, I built Dearboard [3], a co-customizable keyboard (Figure 1) that connects 2 users across all the apps they use together. Dearboard features a co-customizable color theme and a co-customizable toolbar of shortcuts to emojis and GIFs. Since it is a keyboard, users can access these co-customizations in any app they use whenever they chat with each other.

In a study with 18 pairs of couples, friends and relatives, we observed patterns of behavior that were consistent with the use of co-customizations on Facebook Messenger reported in the interview study [1]. For example, one couple changed the keyboard colors to match the purple theme of their wedding. Other pairs customized the shared toolbar of emojis and GIFs with emojis that represented their nicknames to each other (e.g., a lion, and a cat for “lioness”) or memes of TV shows they watched together. Some couples reconfigured the co-customizations almost daily, using them as an extra channel for playful interactions. For example, two best friends changed the color theme back-and-forth between blue and pink in reference to a life-long, whimsical dispute about which color was the best; and a couple used the toolbar of emoji shortcuts as a place to leave “emoji riddles” to each other.

Dearboard showed the co-customizations only when both participants chatted with each other, appearing as a normal keyboard when chatting with anybody else. This inspired customizations dedicated to each other, as if they embedded “little pieces of themselves” in the interface itself. The implicit presence evoked in these co-customizations turned their existing conversations in their usual apps a more intimate place:

This is a special place that you share virtually with your significant other. It’s like a visual help to make you feel in that common space. At least, when you open that [keyboard] up, it’s like when you enter home, like when you open your door and you see the furniture, the paintings or anything, it’s like “Oh, I’m home” [3].

4 CO-CUSTOMIZATIONS FOR TEAMS?

I believe that co-customizations can enable opportunities for teams to tailor their ecosystem of communication and collaborative software to their own culture and practices. While my previous research mostly covered on simple customizations such as color themes and emoji sets, I would like to invite researchers interested in this topic to imagine rich changes to the collaborative functionality of a system. For example, I speculate that co-customizations could let teams explore and define their own:

Presence awareness functionality: What if any member of a team could tailor Google Docs or Overleaf with custom ways of showing what they are working on? For example, one member could add a “typing” sound to hear when others are writing, and another could further tweak this by assigning higher- or lower-pitched typing sounds to different people.

Asynchronous coordination strategies: What if a team’s conventions on how to divide work were embedded in the interface itself? For example, a collaborative programming environment could allow
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tailoring the syntax highlighting to include markers with meanings defined by the team: a method name with white text on red background means “Taylor should review this”, and blocks of code showing black cat emojis on the line numbers mean “Don’t touch, Carla is still working on this”.

Traces of past activity: How could teams include rich traces of past activity in the interfaces that mediate their work? For example, they could create conventions to denote not only the history of changes to a document, but also whether somebody read a section, how many edits a section had, or whether a section had any changes in the past minute / hour / week (to, e.g., pay attention to sections that have not had many changes for a long time). While some teams may prefer to convey these traces visually, others may prefer to combine audio queues and haptic feedback (e.g., heavily-edited sections could make the cursor harder to move).

I look forward to discussing these and many more ideas on the potential of co-customizations for remote and hybrid work.

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REFERENCES


