

Design Strategies to Promote Intercultural Meaningful Social Interactions

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Abstract

Intercultural interactions encourage social inclusion and diversity, but they are often avoided due to prejudices. Intercultural Meaningful Social Interactions (IMSI) can overcome such prejudices; still, the literature lacks guidelines on how to promote them by Design. In this study, we propose eight design strategies to facilitate these interactions, which were originated by bridging four theories for prejudice reduction and exemplar IMSI experiences of 15 intercultural participants. This paper presents the strategies and discusses their use to inspire new design concepts for promoting IMSI.

Keywords: intercultural meaningful social interactions, design strategy, bridging concepts, design research, human-centred design

1. Introduction

Intercultural social interactions refer to encounters held by people from different cultures. These cultures frame the patterns of values, beliefs, and behaviors shared by any group of people (Neuliep, 2012). Culture has different levels of group categorizations (Laroche, 2012) (e.g., family culture, generational culture, national culture). In this study, we refer to culture as pertaining to different nationalities. Positive and meaningful intercultural interactions are needed to promote diversity and social cohesion among different cultural groups (i.e., migrants and locals) besides contributing to decreasing biases (Fonseca *et al.*, 2021; Government, 2009; Pettigrew, 1998). Moreover, these kinds of interactions are crucial to promote social inclusion under the current global migration context, as lately there has been an increase in hate of speech, hate crimes, and nationalistic movements (Associazione Carta di Roma, 2016; International Crisis Group, 2018; Ozduzen *et al.*, 2020). Despite these benefits, interactions between intercultural strangers are often avoided for various reasons, such as language barriers, homophily, and biases and prejudices between them.

Design is an interdisciplinary field that integrates knowledge from other fields as psychology, sociology, and computer sciences. Due to its quality of turning current situations into preferred ones (Simon, 2019), design can be used to encourage/or discourage certain behaviors (Consolvo *et al.*, 2009; De Medeiros *et al.*, 2018). Though previous work on design for behaviour change examined how design can encourage healthy (Consolvo *et al.*, 2014) and sustainable behaviors (Bhamra *et al.*, 2011), and create empathy (B. Gaver, T. Dunne, 1999; Mattelmäki and Battarbee, 2002), we have not found studies exploring how to promote intercultural meaningful social interactions (IMSI). There have been efforts to characterize these interactions (Ramírez Galleguillos *et al.* 2021), explore elements that enable and disable them (Askins, 2016), and provide design speculations to promote them (Ramírez Galleguillos *et al.*, 2019).

Advancing on this previous work, and inspired by the notion of *bridging concepts* (Dalsgaard and Dindler, 2014), we identified eight design strategies for promoting IMSI by connecting participants'

situated knowledge (Haraway, 1988; Harrison *et al.*, 2011) with existing psychology theories for prejudice reduction. We first conducted a focus group with nine migrants and six locals living in Istanbul to explore their previous experiences engaging in IMSI, understanding what made their interactions meaningful. Then, we turned to social psychology, the body of work focusing on developing theories for decreasing prejudices. We linked the insights derived from the focus group to the theories for prejudice reduction, finding eight strategies to encourage IMSI: *facilitating empathy, syncing feelings, supporting understanding, boosting the self, nudging positive perspectives, experiencing together, encouraging cross-learning, and identifying similarities*. Finally, we conducted a preliminary evaluation of these strategies through a design workshop, initially exploring the strategies' potential to aid designers in creating new design ideas for promoting IMSI. In this paper, we first present previous work on meaningful social interactions. Then, we introduce the bridging concepts along with our methodology. After presenting prejudice reduction techniques from social psychology literature and participants' insights into IMSI, and describing the proposed strategies, we discuss initial insights from designers into the strategies' usefulness for inspiring new design ideas.

2. Meaningful social interactions

Meaningful social interactions (MSI) can promote social diversity, increase the quality of life, and influence the resilience of society (Fonseca *et al.*, 2019). Such interactions can promote positive attitudes and learn about other social groups perceived as different. However, these interactions are often avoided in intercultural contexts because individuals prefer interactions with similar people (Ingram and Morris, 2007; Karimi *et al.*, 2018) or because of language differences and biases and prejudices against other cultural groups.

Meaningful interactions between humans have been less explored in design literature, compared to the work seeing meaningful interactions from the perspective of product attachment (Grosse-Hering *et al.*, 2013; Lukoff *et al.*, 2018; Medeiros, 2014). Concerning meaningful interactions between humans, Litt *et al.* (Litt *et al.*, 2020) studied meaningful social interactions in the context of social media. The authors explained that meaningful interactions are those with emotional, informational, or tangible impact people believe enhance their lives, the lives of their interaction partners, or their relationships. Fonseca *et al.* (Fonseca *et al.*, 2021) explored children and teenagers' perceptions of meaningful social interactions by studying if and when these interactions occur during gameplay, how they happen, and with which impact. They indicated that designing for these interactions requires considering participants' preferences, needs, and requirements to support interactions that are both desired and meaningful to those interacting. Ramírez Galleguillos *et al.* investigated how MSI develops, identifying that a memorable event needs to occur for the interaction to be meaningful (Ramírez Galleguillos *et al.* 2021) and proposed igniting, sharing, and reflecting as a process to drive meaningful interactions between intercultural strangers (Ramírez Galleguillos *et al.*, 2019). Askins and Pain (Askins and Pain, 2011) explored how elements of a participatory art project enabled and disabled meaningful interaction between young people with African and British heritage.

The design field has also been concerned with promoting migrants' social inclusion. For instance, ICTs have been developed for migrants keep in contact with their families (Gifford and Wilding, 2013), overcome language barriers (Abujarour *et al.*, 2018), understand the regulations in the hosting community (Harney, 2013), and increase their digital inclusion (Giglietto *et al.*, 2019). There have been efforts to explore storytelling for the empowerment of migrant women in Germany (Weibert *et al.*, 2017) and Finland (Bengs *et al.*, 2018) and of Palestinian youth in the West Bank (Sawhney, 2009). It can be observed that most of the works promoting contact between migrants and locals rely mostly upon facilitating empathy between them (B. Gaver, T. Dunne, 1999; Batson *et al.*, 1997; Kouprie and Visser, 2009; Shu-huei Wang *et al.*, 2018)

With all the above, though studies have explored MSI in the context of design, the literature lacks strategies for encouraging strangers to interact meaningfully in everyday environments. Addressing this gap, we aimed to propose such strategies to inspire designers when creating ideas that promote IMSI.

3. Methodology

3.1. Bridging concepts

Bridging concepts (Dalsgaard and Dindler, 2014) represent intermediary knowledge between design theory and practice. They facilitate the exchange between these different ways of knowing, rather than being constructed solely on one of them. This study presents design strategies to promote IMSI as bridging concepts between theory (i.e., theories for prejudice reduction) and practice (i.e., participants' experiences being part of IMSI). Bridging concepts are composed of three aspects: theoretical grounding, articulations, and exemplars. In this study, *the theoretical grounding* is based on social psychology theories for prejudice reduction as prejudices represent a critical challenge for intercultural interactions, *articulations* are based on participants' perceptions of previous experiences that express relevant qualities of the bridging concepts, *exemplars* are participants' stories of previous MSI, which express relevant characteristics of these interactions. Hence, we grounded the articulations and examples of the present study on participants' empirical and situated knowledge collected during a focus group.

3.1.1. Theoretical grounding: Analyzing relevant theories from social psychology

We analyzed a body of work from social psychology that focused on prejudice reduction theories from both intergroup and interpersonal approaches. While intergroup theories aim to decrease prejudice among different social, economic, and cultural groups, interpersonal strategies focus on individuals and their own identities, thoughts, and cognitive processes, instead of the groups they identify with, representing a more one-to-one approach. We integrated both approaches into the analysis since although meaningful interactions have a relevant personal and subjective component related to feelings and what is meaningful to everyone, prejudices are generally originated from a group perspective. We identified four critical theories for prejudice reduction: intergroup contact theory, social identity, and categorization theories, targeting emotions, and self-affirmation theory (see section 4.1.).

3.1.2. Practice: Focus group study

We conducted the focus group in collaboration with an NGO working to promote the social inclusion of migrants living in Istanbul. We made an open call through the NGO's internal email and social media. Participants were between 19 and 32 years old. Nine were migrants. Six were locals. All of them lived in Istanbul at the moment of the workshop (Table 1).

Table 1. Participants' demographics.

Participant	Age	Nationality	Time Spent in Turkey	Pronouns
1	28	Azerbaijan	6 years	He/him
2	23	Turkey	Whole life	She/her
3	20	Morocco	3 years	She/her
4	28	Turkey	Whole life	He/him
5	28	Iraq	4 years	He/him
6	24	Turkey	Whole life	She/her
7	27	Morocco	6 years	She/her
8	26	Turkey	Whole life	She/her
9	32	Kashmir	3 years	She/her
10	23	Pakistan	5 years	She/her
11	19	Palestine	6 years	She/her
12	19	Turkey	5 years	She/her
13	20	Syria	8 years	He/him
14	27	Turkey	Whole life	She/her
15	22	Vietnam	3 years	He/him

We aimed to learn about their previous experiences engaging on IMSI and their perspective of this kind of interaction. Therefore, a focus group dynamic provided a unique opportunity for participants to openly

share their experiences being part of IMSI and comment on each other's stories. Specifically, we asked them (i) to think about previous experiences being part of IMSI and to share those stories with the group, and (ii) to express what IMSI means to them. After sharing their stories, the participants organically discussed their feelings and thoughts during and after the interactions. The session lasted four hours, and it was audio-recorded. Authors made in situ annotations during the sessions. The transcripts and notes were analyzed using reflexive thematic analysis (Braun and Clarke, 2019, 2020). We focused on the experiences participants had with IMSI and brainstormed the initial codes. With these, we identified the following initial themes: *stories, feelings, perceptions, and outcomes of interactions*. Then, we performed a round of open coding. Finally, we extracted four main themes, which framed different ways of achieving an IMSI: *feelings associated with the interaction, reflections of the interaction, activities performed while interacting, and outcomes of the interaction*.

3.1.3. Intermediary knowledge: Building strategies

After collecting knowledge from theory and practice, we revisited the focus group data to identify the strategies. First, we coded the theories from social psychology according to their approach to prejudice reduction: positive attitudes, re-shaping social category patterns, targeting emotions and fostering self-affirmation. Then, we coded the experiences shared being part of an IMSI and associated outcomes as exemplars embodying qualities of IMSI. Finally, we explored these qualities concerning the selected prejudice reduction theories to make evident connections with this knowledge. Thus, by connecting the three aspects of bridging concepts, we created the strategies to reflect that link between the theories and practice.

4. Findings

This section presents the findings of focus group and the analysis of key prejudice reduction theories.

4.1. Theoretical grounding: theories for prejudice reduction

We have explored various ways to reduce prejudices from social psychology. *Intergroup Contact Theory* (Allport, 1954; Pettigrew and Tropp, 2008; Pettigrew *et al.*, 2011), one of the most comprehensive strategies for reducing prejudice, states that positive contact can reduce biases. Bringing members of different social groups into contact is thought to improve intergroup relations. However, not just any contact is considered positive (Allport, 1954; Arias *et al.*, 2000; Government, 2009; Pettigrew, 1998; Pettigrew *et al.*, 2011; Wessendorf, 2014), as some can be more damaging or validate biases (Pettigrew, 1998). Plus, optimal conditions need to be achieved for positive contact to happen, such as equal status, shared goals, authority sanction, and the absence of competition.

Social identity theory (Grigoryan *et al.*, 2020; Paluck and Green, 2009) posits that intergroup conflict may arise because of social categorization processes. *Categorization process* (Turner *et al.*, 1987) explains that individuals present differences in their ability to cognitively access different levels of their social and personal categorization. These differences are based on their previous experiences, expectations, motivations, and goals when expressing such categorizations (i.e., what aspects of the self are we trying to highlight at that moment). Besides, these categories are adapted to different kinds of *fits*. The comparative fit refers to categorizing themselves in comparison to other groups. The normative fit refers to categorizing themselves with what would be expected from members of those groups. Interventions derived from this social identity and categorization perspective aim to change individuals' categorization levels by four approaches: (i) individuals are encouraged to decategorize themselves, a situation in which individual's identity(ies) is (are) emphasized over group's identity, (ii) recategorize themselves, on which participants are encouraged to think of people from different groups as part of one superordinate group, (iii) cross-categorize when people from opposing groups become aware that they share membership in a third group and (iv) integrate, which aims to promote the acceptance of group differences within a shared group identity (Paluck and Green, 2009).

Emotions can affect cognitions and stereotypes. Therefore, targetting emotions is proposed to manipulate the expression of prejudices (Smith, 1993). An example is perspective-taking interventions that encourage individuals to experience the feelings of being discriminated against by the opposing

group [3, 4, 36] to feel what others feel. Experiments promoting empathy and feelings while learning the experience of a discriminated group, for example, when watching a video portraying anti-black discrimination, can increase the desire to interact with members of that group, which is explained by a change in emotions towards black people (Esses and Dovidio, 2002).

Self-affirmation theory (Steele, 1988) predicts that people discriminate against others to affirm their self-identity when they feel threatened. Hence, people can refrain from demeaning others when their identity is affirmed, for example, when they receive positive feedback about themselves or their work (Paluck and Green, 2009). This body of work suggests that self-protection motivations drive individuals to be biased in their judgments of conflict-related information because they challenge their previously held beliefs about their group's role in the conflict (Sherman et al., 2017).

4.2. Practice: Insights from focus group

Focus group study revealed various insights into IMSI. Overall, participants perceived IMSI as a more profound kind of interaction that can promote a change, even if small, in individuals themselves or their day. Analyzing participants' discussions during the session, we identified five characteristics that make intercultural interactions meaningful and positive. First, these interactions involve a mutuality component in what people feel, think, and show of themselves. For instance, participants defined interactions as meaningful when they perceived *mutual trust*, *safety*, and *tolerance*. Therefore, some IMSI are related to empathy, experiencing similar feelings, and understanding individuals' differences. Second, these interactions allow participants to feel like they *belong* to the moment they live. Participants perceived belonging as being part of something bigger and *feeling accepted* by others. Further, they linked belonging to feels like security, openness, and compatibility. Hence, even though participants might be from different cultures, they expressed that they felt they were part of the same group at the time of the interaction through IMSI.

Third, participants explained that by being part of these interactions, they could *learn* and *reshape* parts of themselves and, thus, of their identity. They described identity as an image about oneself that comes from being part of a group of people who have something in common. They expressed that their identity, belongings, and perceptions of others are somewhat contextual and change depending on their life experiences. For example, participants said that meaningful interactions could allow them to change their perspectives about people they would normally avoid. In fact, according to their previous IMSI, these interactions allowed them to experience or learn something that leads to perceiving others as good people or discovering aspects they have in common.

Fourth, participants felt more *confident* and *safer* when they were part of IMSI compared to interactions that might make them feel judged or threatened. Furthermore, they explained that feeling trust and vulnerability, when mutually felt, could make the interaction more meaningful.

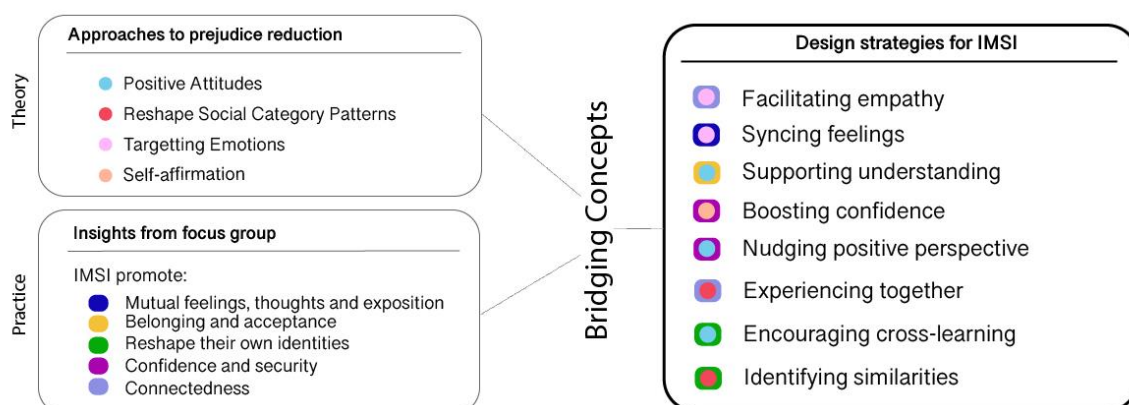


Figure 1. Design strategies as bridging concepts notion of intermediary knowledge. Colors express the link between theory and practice for each strategy.

Finally, *connectedness* was related to the experiences participants shared. They noted that connectedness often occurred due to shared interests, experiences, or thoughts while doing something relevant together. Furthermore, they would have that experience connecting them for the rest of their life.

5. Intermediary knowledge: IMSI design strategies

By bridging the theories with the characteristics of IMSI, we synthesized eight design strategies to facilitate IMSI. We present each strategy below:

1. *Facilitating Empathy*. With this strategy, design interventions can explore ways of enhancing the gathering of insights about the life of people from a different social, economic or cultural group by accessing each other's experiences and attached feelings, reflections, and goals as if these were their own. An example of this strategy could be the various VR experiences (Yee and Bailenson, 2006; Youn *et al.*, 2016) that facilitate experiencing something through someone else's eyes and then reflecting on it.
2. *Syncing feelings*. With this strategy, design interventions can explore ways for people to feel the exact same thing at the very same moment. It is different from empathy in that with empathy, people put themselves in the position of the other, while, by syncing feelings, people feel the same from their own perspective. For instance, when hearing a song that wakes similar senses at the same time. To make a case, we could think of a system that encourages intercultural groups to visit a museum together, matching them according to their favorite painting, so they receive a unique route according to the items that provoke their similar feelings.
3. *Supporting understanding*. With this strategy, design interventions explore ways to create awareness and tolerance of each other's actions, cultures, and beliefs to understand and accept the other as another human being. This strategy is different from empathy in that individuals do not switch points of view. Instead, intercultural people create dialogues about their thoughts and ways of understanding the world, ensuring respect and safety. As an example, we would create mobile spaces in town squares to facilitate peaceful dialogues between residents.
4. *Boosting confidence*. With this strategy, design interventions can look for ways of increasing individuals' self-appreciation and self-compassion, so they do not feel threatened by others and their perceived differences. Examples of this could be receiving good feedback about themselves, their performance or even nudging diversity advocacy. To make a case, we could think of an intercultural community or neighborhood clapping app on which neighbors are encouraged to give positive comments about others, their businesses, their gardens, or other contributions people could make to their community.
5. *Nudging positive perspectives*. This strategy involves designing interventions that extend a positive mindset and attitudes towards those perceived as different. Hence, it includes interventions that highlight positive aspects about the others. Examples can be social media or radio shows that portrait cooperative qualities and values regarded as positive within the local culture about migrants (Paluck, 2009).
6. *Experiencing together*. With this strategy, design interventions can explore different ways to nudge intercultural people to perform activities together, therefore, having that experience in common for the future. Examples could be systems that offer discovering the city together or urban games that allow people to be out of their comfort zone while doing something together.
7. *Encouraging Cross-learning*. With this strategy, design interventions can ideate ways to support people learning something new about their culture and beliefs, hence producing a cultural exchange. To make a case, we could think of a free food sharing app (Ganglbauer *et al.*, 2014) that facilitates people sharing their traditional foods and having meals together.
8. *Identifying similarities*. With this strategy, design interventions can explore ways to show people that they are connected through obvious or unexpected similarities. Thus, people can find common ground between themselves and their group identities. An example of the latter could be an add-on of Spotify, which would suggest meeting with intercultural people who share a similar music taste.

6. Using the strategies

Next, we present the initial outcomes of the preliminary evaluation of the strategies by designers.

6.1. Preliminary evaluation of the strategies

To initially test the usefulness of these strategies to inspire designers to create solutions for promoting IMSI, we gave these strategies to eight designers with a design challenge asking them to think about how two characters from different cultures could meaningfully meet in a public place of their selection. Each designer was assigned with one of the strategies, and received the same challenge, the same characters, and a different strategy. This way, we could initially observe whether the designers reached divergent ideas related to their assigned strategy or not. The activity was individual, conducted in Miro, an online collaboration tool. To communicate the strategies to the designers, we created a set of cards (Figure 2) and provided the same description of the strategy as in 4.3 as text in the Miro board. Finally, we asked the designers about their cognitive process to understand and use the strategies, their decision process, and how they integrated the strategy we gave them into their idea.



Figure 2. Example of cards used to conduct a preliminary evaluation of the strategies.

6.2. The strategies potential to inspire new ideas

To evaluate whether the strategies could be helpful to inspire ideas, we assessed the designers' comments and ideas they generated in the workshop. Overall, we observed that the strategies helped boost divergent design solutions between apps, interactive installations, services, games, and speculative artifacts. Further, the eight final ideas touch upon a broad array of design concepts from space design, public services, artifacts, public interventions, apps, and online services, hence corroborating the divergence of ideations the strategies provide to identify how design could contribute to creating IMSI.

Notwithstanding the diversity of the design solutions, we observed that the strategies allowed designers to converge around the initial challenge of promoting IMSI. The strategies narrowed down their possibilities and provided an appropriate frame to ideate around these interactions. The preliminary insights gathered were positive, providing them with a better frame to focus on while ideating. D2 explained that *"It was very helpful to have a strategy. Otherwise, I would have spent a long time deciding how I could go about creating MSI and perhaps would have felt lost. So, I was glad to have a starting point."* D5 added that *"I think they [strategy] limited me very effectively, it was easier to develop an idea (...) I also based my idea solely thinking on a shared experience which enabled me to find ideas faster without getting lost."*

6.3. Touching on interculturality, beyond empathy

The theories for prejudice reduction are broader than just about intercultural contact. In that sense, personas seemed to help build ideas around more grounded information about the characters involved in the interactions. With the preliminary evaluation, we understood how relevant feelings, character traits, and previous experiences of the fictional characters were for creating appropriate solutions. For example, D1 stated that *"persona was especially helpful in imagining a story and take the perspective of users in order to perceive what will/won't work"*. Further, by complementing the strategies with these fictional characters, designers were able to create more contextually relevant ideas. For example, D4 explained

that "cards and personas helped me to find a common interaction ground for my ideation phase. They helped me to ideate freely, widening my perspective on what can happen between two strangers. They were designed in such detail that, I was able to create empathy between myself and them". Consequently, it seems that, for the ideas to include even a broader array of cultures, these could reflect characters' different intercultural experiences and cultural diversity aspects (Pride, 2015) such as migration status, languages, values, among others.

Additionally, one designer who was using the *facilitating empathy* card mentioned she needed a more detailed explanation of the persona, and a clarification of the subtle differences between strategies, as she thought empathy was required for all strategies. We think that this is because empathy has been a broadly used concept in design and overused idea concerning social inclusion interventions. Still, only because someone can understand the other does not mean they are being empathetic towards that person, as there are differences between empathy, triggering emotions (Smith, 1993) (e.g., self-compassion, kindness), motivating positive attitudes (Allport, 1954; Pettigrew and Tropp, 2008; Pettigrew *et al.*, 2011), between other theories. This confusion highlights the need to appropriately integrating theories from other fields into design. Actually through this study we transferred knowledge from theory and practice into actionable strategies, making visible that IMSI can be promoted in seven other ways, besides through empathy. Therefore, by identifying relevant theories and linking them to participant's experiences, we are proposing seven other strategies that could expand the ways of achieving meaningfulness.

6.4. Recommendations from designers to improve the cards

It should be noted that we initially created the cards only to communicate the strategies to designers, and other materials to observe how the strategies could contribute to inspiring new design ideas. Thus, our aim is not to create a finished design tool that can be immediately utilized in design practice. However, we identified two main areas to improve the design strategies' cards based on designers' suggestions. First, designers suggested to have different colors and sizes of fonts to visually distinguish between strategies. Second, it was suggested that we expand these tools' applicability by improving the design of the Miro board in which it was used. Furthermore, through this study, we have understood the relevance of creating tools specific to design activities. It seems that creating tools that guide designers becomes even more critical in relation to topics and goals that seem to be far from design such as sociology and psychology. By bridging existing knowledge from social psychology with the empirical knowledge derived from participants, we were able to identify strategies that could benefit designers by guiding them to create solutions. These strategies need to be appropriately communicated to designers to guide them effectively. Hence, in the scope of future work, we aim to iterate the design of the cards to communicate the strategies better and explore other tools which could be integrated into the ideation process (i.e., personas, boards).

7. Conclusion

Intercultural Meaningful Social Interactions (IMSI) are required to promote social cohesion and diversity in society. These interactions are relevant to promoting the social inclusion of migrants in their hosting society. However, there are no directions to encourage them within everyday life. This study was concerned with creating strategies to inspire designers while ideating for promoting IMSI. We were inspired by the notion of bridging concepts, linking empirical knowledge from a focus group with migrants and locals living in Istanbul, and social psychology literature on prejudice reduction. We proposed eight design strategies to promote IMSI. We made a preliminary evaluation of these strategies in their potential to inspire ideas that diverge in the kind of design interventions while still converging to the type of interaction they promote. There are different aspects limiting this work, one is the number of participants, their composition and specific social culture they are part of, hence they might not represent every migrant experience. However, our study does not look for generalizability as much as collecting situated knowledge (Haraway, 1988) and insights to inspire designers. Therefore, this work could be complemented by being performed in other multicultural contexts as well. Still, through the strategies devised, we put forward ways in which IMSI can be promoted through design based on both literary work and participants' situated knowledge, by generating

practical tools for designer's inspiration in creating solutions promoting IMSI and eventually promoting social inclusion. We will continue to develop and iterate tools that can inspire design solutions for facilitating IMSI in future work.

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