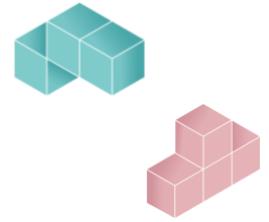


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# DESIGNING FOR DISTANCE



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## ABSTRACT

This paper serves as a critical reflection on designing for distance with the prerequisite of cultural, spatial and temporal distances between co-designers in the design process. The project discussed in this paper was conducted in spring 2021 as a relational design project involving stakeholders from a University college such as a heritage gallery in Malaysia and a student group in Sweden. The main challenges of remote collaboration and expectation management with various stakeholders in a different cultural and geographical setting discussed in this paper are related to stakeholder alignment and trust over time, particularly relevant when working in a cultural context that distinctly differs from the one the designers are situated in.

## INTRODUCTION

For this project, we - a group of Interaction Design Master's students from Malmö University - collaborated with a research team, consisting of a coordinator and students from the UCTS (University College of Technology, Sarawak) in Sibü. Another stakeholder involved in this CEDIM (Cultural Empowered Digital & Interactive Museum) project was the World Fuzhou Heritage Gallery and the Fuzhou Association Sibü. The gallery is a collection centre for important artifacts that have been imported and used throughout the migration and settlement of people that came from Fuzhou, China to Sibü, Malaysia in the early 20th century. The gallery's aim in this CEDIM project was to make use of technology to become a central, safe, educational and interesting space in the city and to keep up with the

global development with the help of IT techniques. This opened up the research question of how the museum could support learning about the Fuzhou identity and identity building through the use of technology. The UCTS research group had previously been working on making the gallery experience more digital and interactive by digitizing the collection of artifacts as well as creating a game application and a website for the gallery.

As a group, we were determined to learn how to work efficiently with stakeholders in a remote setting and to design for a physical space while not being able to access it. In regards to this project, as there are Fuzhou descendants living across the whole world, we encouraged ourselves to explore the remote setting as a virtue instead of a limitation. The project was mainly focussed on designing for distance - with distance being a prerequisite for our own design work. Apart from designing for a physically distant space, the distance of a foreign culture such as the distance from the cultural identity that was addressed within the scope of the project played an important role in the design process.

I, personally, was interested in working with a gallery as a stakeholder as I have been working on curating exhibitions during my Bachelor's studies and wanted to explore more ways that include technology and Interaction Design to shape exhibitions, especially in times of a global pandemic that limits accessibility of physical gallery spaces. Additionally, I was very interested in getting to know a different culture that so far has been entirely foreign to me. Learning to collaborate with stakeholders that bring a completely different background and perspective into our design process was a challenge I was interested in taking on.

Due to the on-going Corona pandemic, the physical gallery space was closed and our stakeholders were in a strict lockdown situation during our collaboration. This afforded us to come up with digital solutions bearing in mind the possibility of the physical gallery space not being accessible for an indefinite amount of time. This was part of the reasoning behind our choice to pick up on the previous students' work on the website as an access point to the cultural identity and framework that

holds different design concepts. As we were aiming to create an enhanced digital experience for the gallery, we searched for inspiration from other interactive galleries and their online presences and experiences, such as museums representing historic timelines through *scrollytelling* (storytelling using the scroll-function) and AR exhibitions, virtual 3D tours or gamification of certain parts of exhibitions.

As we, as designers, came into the process after a group of students had already been working on this project, we were facing the challenge of building on top of the existing work. For this reason, we were looking for resources on how to co-design in a remote setup to be able to use the outcomes and learnings from the previous student group for our own design work. Examining the existing concepts and insights made up a big part of our research phase and determined the path for our own design directions. In order to conduct this project, we were working with different methods for co-design and remote workshops, such as Miro (an online platform for collaborative working) workshops inspired by guide videos on how to conduct workshops using Miro as a tool, i.e. on YouTube. Furthermore, we explored the usage of empathic dialogues (Wallace et al., 2013) and the knowledge of the cultural group we were collaborating with as a virtue, similar to Reitsma et al.'s (2019) collaboration with an indigenous community. Additionally, we collaborated with students that had a duality in their roles within this project, which we discovered only half-way throughout the project. This meant that we were able to co-design in a different way than we had first expected: We were able to collaborate on the technical implementation of the design work that we were assigned to do.

## METHODS

Inspired by Reitsma et al.'s (2019) work with indigenous knowledge, we entered the project with the intention to learn from our collaborators about their previous project work such as their cultural background that was of special relevance in our project context.

As we had been told, trust oftentimes has to be gained over time in Malaysian culture which led us to choose an approach based on loosely guided dialogues in order for us to get to know our collaborators and foster an open communication. Using empathic dialogue probes (Wallace et al., 2013), we attempted to engage our stakeholders in Malaysia into conversations about their cultural heritage, particularly the Fuzhou descendants we had been collaborating with.

### WORKSHOP 1 – EMPATHIC DIALOGUE

As we were not able to physically engage with our stakeholders, we were conducting our workshops with them remotely, using Miro as a tool. Instead of providing the workshop participants, the UCTS student

group, with physical cultural probes, we presented some insights into the Swedish culture, such as our own cultures, in a digital probe format. For this, we included emojis and pictures of typical food in our short warm-up exercise. That way, we attempted to engage the students in a conversation about their own culture and heritage that would be closely related to their feelings of home, evoked by talking about typical dishes that remind them of home. Opening up our first workshop with individual stories about our own culture, traditional food etc. to prompt a dialogue and create a more playful atmosphere eventually sparked conversations about life in Malaysia. The main goal of the first workshop was to build up trust through an empathic dialogue (Wallace et al., 2013) as a basis for our probe workshop. By means of this, we were hoping to enable them to reflect more deeply on their own heritage while at the same time giving us an entry and access point into their cultural identity.

This was based on our first research where we found out a lot about the Fuzhou food culture in Sibiu. We elaborated hypotheses through our own online research and with the help of the data around the project that had been provided by the research group. To find out more about the culture, we asked specific questions related to our previously established hypotheses, such as particularly interesting parts about Fuzhou culture in Sibiu everyday life.

### WORKSHOP 2 – PROBOTYPES, HALF-MADE PROBES

Later in our design process, we set up a second workshop to present prototypes of our more refined design concepts to the UCTS students. Our goal was to get input from the students, i.e. on feasibility and practicality of our ideas. We had prepared probotypes, as a middle ground between prototypes and cultural probes, and half-made probes (lo-fi wireframes) that would allow for the students to think further and imagine use cases and scenarios, to foster co-creativity. The students were encouraged to share their thoughts or personal ideas on the further development of the prototypes with us. For this workshop we worked in individual breakout rooms on Zoom to avoid the situation of just one spokesperson providing us with feedback as we had experienced in our previous meetings.

After we had learned about the duality in their role, for instance the students were also involved in the project to work on coding our design concepts, we attempted to create a “third space” (Reitsma et al., 2019) that would allow the students to recognize how valuable and powerful their contribution can be. By helping us to contextualize our insights, the students were able to show us new possibilities of how our design concepts could be developed.

In order for us to introduce the UCTS students to our design concepts, we used the tool Figma. This collaborative online design tool allowed us to share our work-in-progress and enabled the students to add their input. We encouraged them to contribute their own design ideas and support our design work by evaluating their own personal connection to the design process (Reitsma et al., 2019).

## RESULTS

As a result of our initial research on the material from the previous student group and the current status of the World Fuzhou Heritage Gallery, we encountered that the gallery has a big collection of artifacts that are currently displayed mostly out of context. Therefore, we decided to put our focus more on a contextualization and emotional storytelling around the artifacts.

Based on the outcomes of our first workshop, we developed different design ideas that could potentially show the artifacts in a more emotional historic context, ranging from bigger design ideas such as in-town AR installations to design ideas that were more focused on building on top of the work of the previous students, such as mural storytelling.

## EXPECTATION MANAGEMENT

In a meeting with the gallery stakeholders, we were asked to leave our broader design visions aside and to focus more on aligning our design ideas with the work that had been executed by the previous group of UCTS students. Our stakeholders indicated that some of the ideas we presented were not fitting their educational system or were too focused on a global audience. This provided an interesting insight and underlined the value of collaborating with people situated within the cultural context that we are designing for, as it served as a helpful way to validate or disprove our assumptions and hypotheses.

This was the point where we discarded some of our ideas of the first ideation phase and shifted our focus towards the continuation of the website that had been worked on by the previous student group before. Due to our remote setup this was one of the most feasible plans to be executed as it doesn't necessarily require any on-site action.

## DESIGN PATHWAYS

In the physical gallery space, a corridor with stone murals that tell the migration and settlement history of the first Fuzhou settlers in Sibiu, is located on an outside platform (see figure 1). We saw the potential to enhance these murals in an interactive way. This design vision seemed to fit well into the gallery's goals, which we learned in one of our meetings with the stakeholders, as currently there is the need for an expert to be around to

learn about the stories behind the murals and they are located in an area that is very hot at most times and doesn't allow people to stay and look at the murals and learn about the stories for a long time. This serves as another example of how we were able to validate our assumptions through a meeting with our stakeholders.



Fig. 1: First chapter of the stone murals.

Thus, we decided to build upon the website wireframe that has been created by the previous student group but incorporate the stories around the murals in an enhanced interactive experience to serve as an entry point into the Fuzhou culture and connection point to the cultural identity. This reflected where we had positioned ourselves in the CEDIM project in the beginning, namely taking on the role of placing the artifact collection into the heritage context and focus on the emotional storytelling of the migration and settlement history. This decision was heavily influenced by the aim of the gallery to make the cultural heritage accessible and more relatable, amongst other things also particularly for younger generations and a global audience.



Fig. 2: Mural Dynamic Storytelling

The murals consist of twelve chapters that we turned into more alive stories by highlighting specific parts of the mural and adding short explanatory paragraphs such as links to the artifacts from the collection (see fig. 2).

The chapter 13 of the murals would exist as a community-contributed map that would include biographical postcards potentially from important figures and places in Fuzhou history such as personal

stories, contributed by users (see fig. 3). This could support the goal to connect the Fuzhou descendants to their own heritage while at the same time learning about their cultural identity. This map has been partly inspired by Cuartielles' community-contributed platform (2018). We provided different possible pathways and implementations as a guideline to pass on to the next student group, as the execution of the actual implementation will be put into the hands of the stakeholders involved in the future of the CEDIM project.

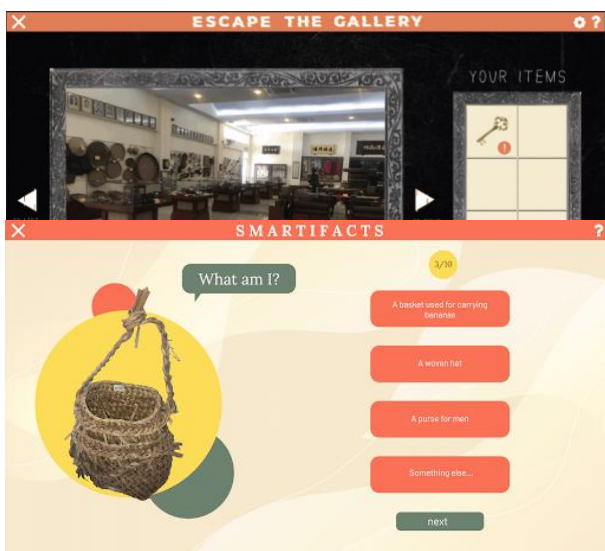


Fig. 3: Community-contributed map.

Similarly, we developed a guideline for games that could live on the website in the future in order to present the artifacts in a fun context and make their usage stories more accessible to a younger generation (see fig. 4).

Fig. 4: Potential Game & Quiz directions.

Another potential way to put the artifacts more into context that could live on their website is the curating of



exhibitions around specific artifacts, which we touched upon as one of our potential design concepts, including three proposals for exhibitions that could be interesting from our point of view. Naturally, we had to be careful to point out that these are just suggestions and leave the

decision for the actual setup of exhibitions to the gallery stakeholders as experts in Fuzhou history.

While creating these different design pathways, we decided to put our focus on conveying our main conceptual ideas with potential ways on how to execute these. Having in mind the long-term vision of this CEDIM project and the goals of the gallery, we wanted to provide future students who will be working on this project as well as previously involved stakeholders a concise and practical guide on how to pick up our work that we handed over to them and on our position in this project.

## ANALYSIS

A question that came up within our group was in which way we are co-designing and having the UCTS students involved in our design process. Following Reitsma et al.'s (2019) methodological approach, we were entering the conversations with an attitude towards equal participation in order to allow for participatory design. However, this notion was not really reciprocated as we found ourselves in a different situation than expected based on the cultural setting, as we had to discover during our first meetings. Difficulties with opening up from their side in the beginning made it harder to get input on the project in a collaborative way. This led us to re-think our initial idea to actively involve them in the ideation and creation of design visions. Instead, we took on a more proactive role in the first phase of the project and presented them different pathways we could envision for the gallery to start the co-design process.

Particular for our project, there were challenges regarding the design from a distance such as different timezones, the challenge of continuing to work on an existing project, the lack of skills in using certain digital communication tools on the side of the gallery stakeholders, such as cultural and language barriers.

## CULTURAL DIFFERENCES

Working with a different culture was something completely new for all of our group members that brought unexpected challenges with itself. In the beginning some trouble arose while attempting to figure out the social dynamics. Assuming that the collaboration with the research group would be happening similarly to collaborations within our own cultural context led to difficulties. It appeared that the social dynamics seemed to work very differently due to the cultural differences. We learned that the hierarchical structures seemed to be more prominent in their relationships and defined the level of participation in our meetings with the stakeholders.

The process of building up trust between the stakeholders and us as a crucial part in relational design (Reitsma, 2014) was a time-consuming process that

unfortunately slowed down some of the potential of this collaboration. Oftentimes, getting the answers we were looking for required patience. We had to learn to adapt our expectations and workshop methods to a culture that is a more reserved one. In the end, we could notice a difference in the levels of participation and an enthusiasm about what we were able to create when working together.

#### WORKSHOP SETUP

Knowing that most of the students being situated in the context that we were designing for in this project would allow us to work with experts in the field and take their input for a “richer representation of the cultural context” (Reitsma, 2014), we were trying to make use of this benefit. According to Reitsma et al. (2019), „there should be a space for the indigenous knowledge of the community to function as input on different levels”. We, as external designers, will never fully understand the cultural context. Working in a short project timeframe, we have to accept this fact and rely on certain knowledge shared by our stakeholders in some decisions.

For instance, by conducting our first Miro workshop, we realized that we needed to improve our time planning, as it turned out to take more time than we had expected beforehand and the conversations didn't seem to be flowing that easily. The enlightenment about their cultural structures playing a role in the social dynamics helped us plan out the workshops to be more efficient. In order to receive feedback from everyone and get an equal amount of participation throughout the group of students, we came up with the idea to work with individual breakout rooms in our Zoom sessions. This way, we ensured that everyone could be addressed personally and get the chance to speak. This workshop felt like a “breakthrough” moment, potentially due to the 2:1 constellation or due to the passing of time in order for the students to build trust towards our group.

#### REMOTE COLLABORATION

Being in a fully remote setting in three different timezones first of all became challenging in a practical way. Figuring out meeting times was not always easy. Availabilities had to be considered and required a thorough planning of the timeline of the design process. Additionally, technical difficulties such as the inability to use Zoom on the side of the gallery complicated the collaboration at times.

The proficient use of a video platform that allows for screen-sharing potentially could have simplified our collaboration with the gallery as a stakeholder in a different geographic and cultural setting. However, we found a way to communicate over WhatsApp video calls and the UCTS students functioning as a bridging instance between us and the gallery stakeholders.

#### STAKEHOLDER MANAGEMENT

Working together with two different groups of stakeholders, adding up to 14 individuals being involved in this collaboration, communication relays and delays were almost impossible to avoid. Even within the gallery stakeholders, there seemed to be a conflicting understanding of the vision and goal of the museum. Similarly, there were different opinions in a project that involved various stakeholders. Due to this confusion, it was unclear what exactly it meant for the gallery to become a central, safe, educational and interesting space in the city and keep up with the global development during our first weeks. Only when we received the project material from the UCTS student group and had our first meeting with the gallery stakeholders, we started to understand that we were free in our ideation and didn't need to align with a more specific goal.

As the research group had already done some previous work that we potentially could pick up on, there were already some connections in place that we had to take into consideration. There were different expectations and potential pathways for us to begin with. Instead of starting the project from zero, we had to figure out and manage expectations and get to know the process they had been following so far.

Throughout the process of the stakeholder management we experienced the difficulties of an alignment between all people involved in the project. It was a challenge to overcome misalignment, miscommunication and design for the needs of all different stakeholders. Managing the expectations of various stakeholders that at times differed, raised the question of how to handle conflicting opinions, in a way similar to Björgvinsson et al.'s (2012) work with several stakeholders. Would it be fair to prioritize one perspective over another, especially working with a culture that seems to emphasize the hierarchic structures? This imposed the question on how to align all different expectations and how the roles are distributed evenly in our design work.

Throughout the whole project, we were facing the difficulty not to overstep a border that would feel inappropriate and disrespectful towards the previous work or their cultural identity. Similarly, when working with the murals, we were facing the challenge not to disrespect the work that had been put into the murals by the artist or undermining the importance of certain elements in the mural. A question we had to ask ourselves was: How do we judge what is important and what do we leave out?

Given the constellation of our stakeholders, inhabiting different interests in this process, our outcomes were an attempt to find a compromise that works for everyone, leaving room for developing the presented design pathways in many different ways in the future.

## AGONISM

In our second workshop, we experienced agonism (Mouffe, 2000; Björgvinsson et al., 2012) in the conflict between feasibility and preference from different stakeholders. In one of our earlier meetings, we had presented our different design directions and gotten feedback from the supervisor of the UCTS research group. Additional to his feedback, our discussions from the supervisions led us to consider a more in-depth involvement of the game ideas (especially the point-and-click “Escape the Gallery” idea). However, the students were expressing their concerns about the complexity of the programming that would be needed for this design vision.

This led to our decision to focus on the mural idea and provide the students with a framework to elaborate further with the group of students that will pick up on the previous work. Later in the process, we learned from the gallery stakeholders that the mural stories we had already been working on were more extensive than we had first assumed. The stakeholders wanted us to focus on different pathways of our design concepts but we went into negotiation with them and co-designed a new website navigation and compromised the deliverables for the final hand-over of this project to be different guidelines and prototypes for several design directions.

Another agonism we’ve been facing in this project was our concern to design for a desire that might not be prevalent, i.e. the desire to learn more about their cultural identity and heritage from younger Fuzhou generations. Our attempt to find a compromise for the stakeholders’ intentions was to add to the existing murals an emotional storytelling with the help of dynamic animations. We wanted to accommodate both the stakeholders’ intention to teach about the heritage history while at the same time creating a more interactive and appealing approach for younger Fuzhou descendants.

## COMMUNICATION CHALLENGES

Due to the fact that we had a native Mandarin speaker within our group, the language barrier between our student group and the gallery stakeholders could luckily be bridged. Another remarkable outcome from the exchange in their native language is a potential that could have been lost along the way. As they felt more connected to someone speaking their own language and could communicate more easily, we were able to get insights that we would have certainly not gotten from a conversation in English. This taught us that when collaborating with stakeholders that speak a different language, it might be helpful to work with a translator in order not to miss out on important cultural insights – however including a third person obviously adds another level of bias.

challenges with it. Especially the democratic understanding is not necessarily the same everywhere and it might even be seen as rude in certain societies that value hierarchies more to treat everyone as they

## CO-CREATION

According to the student group, being creative was not easy for them. Throughout the project, we noticed a gap between our initial expectation and the actual input and feedback we received from the side of the UCTS student group. In our attempts for co-creativity, we came to understand that they were heavily focussed on the technical implementation. They were stepping back from the role as co-designers and saw themselves more as supporting help to implement our design ideas from a technical point of view which was challenging to negotiate in this short timeframe. We realized throughout our collaboration that merely asking them to answer our questions provided us with very limited insights. Thus, we decided to show them our design ideas as precisely as possible and as detailed as needed for them to be able to visualize what we were envisioning. As they were specifically stating not to be very proficient in the visual design area, we decided to provide a design manual on how to apply and maintain the design for the website that we had been working on in the future.

## DISCUSSION

One of the most important aspects throughout the process has been the consideration of our role within this project, that is building upon existing work but also creating design concepts that serve as a starting point for a new group of students to pick up on. This is why the material for our hand-over had to be broad enough for them to take our concepts into further explorations, yet precise enough to understand where to pick up on.

A big learning was the cultural precondition of having to build trust over time that especially became visible towards the end when we were offered more support by additional students. Seemingly, the appreciation for the potential we were bringing into the design project was replacing the initial scepticism and reservedness. This needs to be kept in mind when planning a collaboration with stakeholders that are situated in a different cultural context because the assumption that the design process can be executed in the same way as in the own culture can lead to difficulties such as lack of time or input for ideation and creation of design concepts.

In this project, there was a need to bridge cultural, spatial and temporal distances which brought certain were on the same level. Therefore, co-designing with stakeholders from a different cultural background requires sensitivity and viciousness about your own assumptions in order not to impose the own cultural

ideas and perceptions on a different culture in a colonialistic manner. We experienced this, for instance, when discussing the women's role in Fuzhou societies and realizing that the woman might not be represented in a way that it is in our cultures and imposing our cultural ideas might be overstepping a border.

## CONCLUSION

One of the main learnings of this project was that a lot of time and efforts while co-designing with stakeholders in a different cultural setting might need to be invested in overcoming both a cultural and for some of the stakeholders also a language barrier. More-over, the establishment of trust within the design process can be limiting and should be considered, especially when working in a short timeframe.

It is fairly important to acknowledge the complexity that co-designing can bring when working with distance in a cultural and physical sense as well as with a variety of stakeholders. Things are likely to take longer than expected due to the need to build up trust over time in certain cultural contexts, temporal differences when setting up collaborative meetings and alignment between several stakeholders. In a co-design project, there is a need to be prepared for the challenge to manage different expectations and align visions and goals of different stakeholders to find a compromise that leaves every person involved satisfied with the final outcome.

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