

Science to Experience 2023/2024

## Interwoven

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*'How important are connections in your life? Friends, family, lovers and even total strangers. This artwork explores the social aspect of humans and how all those connections form the bigger picture. Witness how your interactions with others breathe life into a dynamic and organic display showcasing the beauty of human connections.'*

### 1. What scientific insight did you choose and why?

The problem we faced first when the group was formed and the theme of living was announced for the exhibition, was that living can be interpreted in so many ways. When we first started discussing what “living” means to us, we searched in different directions for what we could do at the exhibition. First we talked about our own experience at the Ars Electronica festival and what part of it was the most memorable. For us the most memorable part was the basement part at the main convention center, of which we could still recall a lot of the visual artworks. What first came to mind for Sven thinking about “living” were Bioluminescent Algae. These tiny organisms can produce a glow-in-the-dark effect in the sea. From there we talked about mimicking such algae in a dark room. The combination of the memories of Ars Electronica and this idea of using light as a way of symbolizing life sent us in a direction of making a dark room where light and sound will be used to represent life. At the same time a new movie called “samsara” was released in cinemas, which focussed on the idea of reincarnation. In this movie the process of reincarnation was explored through visual and auditory experiences. From then on we brainstormed on what we could do with this idea, but before we came to any real conclusions, we discovered at the plenary session that there was no separated space at the exhibition site of V2\_ and therefore we dropped the idea of reincarnation through immersive experience. At that point we were basing our work on two statements:

- When you die, your energy is preserved. Shared energy can transcend through reincarnation. based on the law of conservation of energy. (The law of conservation of energy states that energy can neither be created nor destroyed - only converted from one form of energy to another.)
- Connections are important to experience moments of happiness in life. “Living” and the feeling of being alive are caused by events but most important by sharing these experiences.

From there on we looked at what we could do with the second statement, while dropping the first one. The most important scientific insight to start from for us was the social network theory. The social network theory states that individuals interact and form connections within a network, emphasizing the patterns and implications of these interactions. We were particularly drawn to this insight because it provides a way to understand the complexity of human relationships and the various roles individuals play within a network.

## 2. Why is this phenomenon/observation/insight interesting?

Social network theory bridges multiple disciplines which also makes it easier for us to work together, since we come from different backgrounds. The disciplines used in the social network theory include sociology, psychology, and computer science. For us the interesting part about this is that we would be working on a visible artwork that represents an invisible connection between human beings. The core elements of social network theory include nodes (individuals or entities) and edges (the relationships or interactions between them). In the terms of the social network theory, the centrality of an individual shows the role he or she plays in a social structure. It is interesting to see if these different roles can be measured at the exhibition site as well. Other aspects of the social network theory that can be shown through a visible artwork are clustering, to reveal subgroups within a larger network, and network density, to measure the proportion of possible connections in a network that are actual connections. A higher density indicates a more interconnected network. What also makes the use of social networks interesting is the idea that in today's day and age a lot of connections are made digitally, be it through text messages, social media such as instagram or snapchat, or even dating apps.

## 3. How did you choose to translate the insight into an experience and why?

During the time of exploring ideas, we simultaneously attended the course of Sound, Space and Interaction, where at one time the use of wifi to connect to a programme such as plugdata was explained. From this course we explored the use of locations on the exhibition site of the participants as a base for our product. The initial idea was that a connection was made automatically when two participants spent a certain amount of time in each other's proximity. Eventually this proved to be too difficult both to measure and to respect one's privacy. After that we explored different ideas to implement some sort of network as a base concept for our project. Also during our meetings with Rob, it became more clear that we should not fully focus on the digital artwork, because that would undermine the idea that social interaction is essential for a sense of living. Therefore we thought of an interactive way to show the necessity of social interaction. It was important that this interactive way would be analogue and really engages making connections in real life. The feedback we got during the plenary sessions also showed that the visual artwork and the interactive game seemed to be very unrelated. From there on the visual artwork became more a sort of attention grabber than the main artwork.

## 4. What is your statement and what makes your statement compelling and communicate your phenomenon/observation?

"Human beings need interconnectedness to experience the sense of living."

This statement captures the essence of our project by emphasizing the intrinsic human need for social connections to feel truly alive and fulfilled. It highlights the fundamental role that social interactions play in shaping our experiences and our understanding of what it means to live a full life. By combining the visual, interactive, and reflective elements of the project, we effectively communicate the profound need for interconnectedness in experiencing the

sense of living. This holistic approach ensures that participants not only understand the statement intellectually but also feel it emotionally and experientially

#### 5. What is the work or installation, and how is it derived from the phenomenon/statement?

For the exhibition at V2\_, our artwork for this project is that participants come to us to engage in an interactive game. Then, once someone has made a connection with someone else, the participants can provide their names (preferably nicknames) to us in order to integrate them into our visual artwork. The visual artwork is a representation of all the participants and the connection between the participants. The visual artwork is shown on a LED screen. For the interactive game, the participants get a card with 6 subjects/objects on it. In total there are 31 subjects/objects and with a mathematical solution, everyone with a card has one subject/object in common with someone else who has a card. The goal of the Game is to test and strengthen the connection between two participants by seeing if they can think of the same word when given a common subject. In a way, the participants have to show some telepathy to successfully fulfill the task. If they don't match on the first try, they will use their initial words to find a common word in subsequent rounds. The game encourages communication, creativity, and fun. In case a group of more than two participants come up to us at the exhibition, they can instead choose to participate in a more classic group task called the "Blindfold Rope Square". The primary objective of the Blindfold Rope Square is to foster teamwork and enhance communication skills among participants. The goal is to work together to form a perfect square using a rope while all members are blindfolded. This task is designed to enhance teamwork, communication, and problem-solving skills by challenging participants to work together without verbal communication, no visual cues and where again participants have to show some telepathy to successfully fulfill the task.

When the participants successfully finish one of the tasks, they can digitally represent their connection in our visual artwork. The visual artwork exists of nodes for participants and the connections between the participants is shown through concrete connections. When we enter the names of the participants and show the new connection that they made, the participants will be rewarded with a visual/auditory cue. Then their real-life invisible connection is finally immortalized as a visible connection in the great web of all the connections. The visual artwork will evolve over the course of the exhibition and will be used to attract new participants as well.

#### 6. Why and how does one experience (part of) the phenomenon/statement through the work?

In this way the artwork lets the participants experience the statement that human beings need interconnectedness to feel the sense of living. The invisible connections are made visible for all participants in the visual artwork and in the case of the Blindfold Rope Square the connections are literally made through the rope. Participants experience the phenomenon of social networks through a combination of observation and engagement. The interactive card game facilitates active participation and connection-building, while The digital installation provides a visual representation of the network. This dual approach ensures that participants not only learn about social networks theoretically but also experience and contribute to them practically, making the concept of human connections

both compelling and personally relevant. This holistic experience aligns with our statement that human connections are the backbone of our social existence and highlights the importance of understanding and enhancing these connections.

Lastly, an example of what our visual artwork will look like

