

Inter-activity

By Marloeke van der Vlugt

For Enter the Writers, I am going to immerse myself over the coming weeks in the concept of interactivity; specifically in relation to the works shown in the Media Lab. What are the features of interactive installations? Can you see different degrees, or amounts, of interactivity with each work? What reasons does an artist have to create an interactive installation? How does a work get the visitor interested enough to interact? And how do visitors experience the work?

Before you read on, put your headphones on.

[Open](#)

How would you describe an interactive work of art? A quick flick through the publicity material about works of this sort recently shown in the Media Lab, gives the following: - "Interactive installations are interactive artworks that you can control by jumping through, riding a bike, swaying, or even mowing the lawn." - "The artwork changes colour in response to the visitors." - "Soundwave is a remarkable installation that is set in motion by sound. The louder you scream, the more the colossus begins to undulate."

An important criterion for interactivity is what is called, 'the influence of the viewer on the artwork'. When the viewer does something, the appearance, the movement, or the physical state of the work changes.

However, to me, this seems to emphasise only one side of the coin. A work is only interactive when the changes in that work challenge the behaviour of the viewer, and vice versa. You can take the reasoning further and state that true interactivity should always result in the creation of another, unique work; after all, each person is unique, and will react differently and give a different input...

2. Grab a biscuit

These unending possibilities are, of course, very difficult to achieve. And with many technological installations you soon experience limits in what you can do. Every possibility of interaction will, of course, have been devised and pre-programmed by the creator.*

The aim is then to discover what the artist wants to convey through the interaction. Perhaps the interaction is focused on expanding our senses, the creation of a social experience, or the generation of a specific emotion.

3. Ignore the advice of points 1 and 2

When the message is clearly communicated, the limits of interaction need not be seen as prohibitive. Perhaps the experience of limitation is the right message!

For me, as a maker of performative installations, the actual interaction is at the service of something else. When a viewer interacts with a work, he or she becomes a performer, and presents (a part of) the work's significance to other observers. He or she is actually showing how modern people communicate with their environment through technology.

4. Take a selfie :)

*) The self-learn(ing) computer systems that are currently emerging are an exception to this rule.

A Living Triangle

p> We react emotionally when we recognise elements of ‘human behavior’ in an object or a space. Ruairi Glenn explores this fact in his artistic practice and as coordinator of the Interactive Architecture Lab. In response to my question of how Ruairi sees the relationship between people and his designed ‘living’ architecture, he talks about Fearful Symmetry. He made this installation in 2012, especially for the opening program of The Tanks at the Tate Modern.

Ruairi: Tanks consisted of dark rooms and spaces that had not been opened to the public for some 30 years. I wanted to reveal these spaces, inviting the public to discover them by literally shining a light into them. The title, Fearful Symmetry is from the poem The Tyger by William Blake. In this poem an awful creature appears out of the darkness. For me, the poem about the challenge of awakening something into life: how can you create something so terrible? This creature was the character, and I wanted to show that. Something that initially terrifies you, but something that you can eventually connect with.

That is the underlying story, but the experience of the installation itself is non-linear. The whole room is dark when the audience enters. A triangular object hangs from the ceiling; a robot which can move along a line of twenty metres’ length. The triangle emits light and moves through space. Sometimes it seems to follow the visitor, and at other times it remains still, or moves in another direction. The crowd reacted very differently. Some stood watching on the side, whilst others tried to communicate with the robot.

I see Fearful Symmetry as an exercise in abstraction and complexity. Namely, how the shape of the object can be abstracted, or seen as living, by the public? And how simple or complex should its behaviour be, in order to elicit the public’s emotional involvement?

Marloeke: So in this work you - as the creator - research how this psychological game between people and an object works. The object in Fear Full Symmetry determines whether, and how it is communicated. The audience reacts accordingly and actually forms a test group for you. What are your thoughts on this one-sided relationship where the robot or the technology seems to be more powerful than people?

Ruairi: I am aware of the fact that when something comes alive, it has a very emotional effect on us. I do not know if this is a good or bad thing, but as of yet, only a few designers have thought about this process. They are employed by large companies, who also employ a large team of psychologists to undertake research into this field. The result is the Google Car that winks at you and keeps the door open for you, or Siri from Apple that talks to you in a familiar manner with each update. They seem as innocent as Mickey Mouse, but all of these things represent large and powerful companies. The best course is to delve deeper into the relationship between machine and psychology so that you as a designer can make your own conscious choices.

The students of the Interactive Architecture Lab have to present their research several times a year, to a group of critical peers. I was at the recent presentations and will discuss some of their work in the next few blogs.

[Golem: pneumatic modular kit](#)

As well as promoting ecological and sustainable thinking, the course expects the newly developed software to be made available [open source software](#) for wider public use. Juncheng Chen, Siyuan Jing and Lydia Zhou, three students from China, know how to integrate these three principles in a creative way in their project Golem. They began with the question: how can you move an architectural structure? And how can you develop a high-quality, multifunctional *modus operandi*?

The group studied the systems behind the Rolling Bridge from [Heatherwick Studio](#) and examined the projects developed by [Hyperbody](#) at the TU at Delft, where Lydia Zhou had studied for a while. However, these proved to be very complex, expensive and energy consuming constructions.

The Dutch artist Theo Jansen on the other hand creates very different structures. His [animated beach animals](#) are lightweight creations made from inexpensive PVC pipes. The skeletons are moved by “push muscles”. Here, the “muscle” stretches through the direction of the wind, which then initiates movement. Theo Jansen allows his creatures to evolve slowly. He develops his designs through a continuous building process which leads to better structures. He let the animals loose on the beach where they are exposed to wind and rain. The animals that don’t survive there - namely those that don’t move - are buried.

The students were very excited about his wonderful creations and developed the idea of “stretching the muscle”. After several attempts, they finally created multifunctional, durable and cheap “air muscles”; using elastics into which a small amount of air is pumped, and controlled by an [Arduino](#). By stretching and contracting, the elastic creates movement. Air forms the main source of energy in moving these kinetic constructions. In order to build the structures, the students designed connection pieces, which are created by a laser cutter. They function in the structure as joints; they keep the pieces together but also continue to move.

During the students’ presentation, someone in the audience asked a question: did they have ideas about a specific form, or application for their work? The room fell silent. The students had as yet no idea round how this design could influence the relationship between people and machines, or what desires or dreams could be realised by using these new tools.

For now, the students will let the public answer this question. The design should be brought onto the market, as an open source, modular toolkit. Multiple parties can then develop the various components and, in the process, discover new possibilities and applications. During Cinekid, Golem can be used as an open workshop, and children can work with the components.

I do wonder, what happens to such a nice idea if its development - and all responsibility - is placed wholly on the user. Will Golem be embraced by a wider audience, and then further developed by companies? Or will the idea die a quiet death because no one knows what the possibilities are? Will people actually discover new applications by simply playing around with a technology, or do we just create what we already know - again and again - in a “new” form? Should people determine the direction in which such technologies develop? Or should nature be used as the ultimate example?

And is it not better to have a clear goal in mind whilst developing a technology? The next group of students had a clear opinion about that.

Bio

Marloeke van der Vlugt (1971) is an artist and researcher. She studied Theatre Studies at the University of Amsterdam, scenography at Goldsmith's Academy in London, and choreography at the Laban Centre in London.

Since then she has developed interactive and performative installations.

At DasArts she specialised in the relationship between technology and performance art. She is a tutor at the Utrecht School of the Arts. In 2015 she published her book, *Performance as Interface / Interface as Performance*.

Colophone

This publication was made by: Fabiola Fortuna (IT), Janne van Hooff (NL), Latika Meelu (IN) and Thomas Walskaar (NO). Fabiola has a master's degree in Information, Publishing and Journalism from Roma Tre University. Janne is a master student of the Royal Academy of Art, The Hague. Latika is a master student of New Media and Digital Culture, Utrecht University and Thomas has a master's degree in Media Design & Communication from The Piet Zwart Institute, Rotterdam.