

Hannes Leopoldseder · Christine Schöpf · Gerfried Stocker

CyberArts 2018

International Compendium

Prix Ars Electronica

Computer Animation · Interactive Art + · Digital Communities
Visionary Pioneers of Media Art · u19-CREATE YOUR WORLD

STARTS Prize '18

Grand Prize of the European Commission honoring Innovation
in Technology, Industry and Society stimulated by the Arts

INTERACTIVE
ART +

Navigating Shifting Ecologies with Empathy

Minoru Hatanaka, Maša Jazbec, Karin Ohlenschläger, Lubi Thomas, Victoria Vesna

Interactive Art was introduced to Prix Ars Electronica as a key category in 1990. In 2016, in response to a growing diversity of artistic works and methods, the “+” was added, making it Interactive Art +.

Interactivity is present everywhere and our idea of what it means to engage with technology has shifted from solely human-machine interfaces to a broader experience that goes beyond the anthropocentric point of view. We are learning to accept machines as other entities we share our lives with while our relationship with the biological world is intensified by the urgency of environmental disasters and climate change that some still deny. Media artists are asking questions and staging interventions to raise awareness about the urgency of these issues and the need to take action NOW. The + sign encompasses questions of how we interact with the established news media—the online community has opened doors for the public to engage, question, and interact with current events. This year the jury perceived how the + sign symbolized the interconnectivity of humans, animals, bacteria, machines and everything else—the ecology of the collective mind.

Applications are invited for this category every two years and this year we received more than 1,000, which resulted in a highly competitive and diverse short list of applicants. The jury took a contextual approach to this vast landscape of artistic practices and conceptual focuses by identifying hubs of discourse and practice methodologies/areas. These included Robotics, AI and computation, environmental sensing, memory, knowledge and human connection, materials and tools, methodologies in creative practice, new economies and socio-political concerns. The mood of the community is as diverse as the works, yet an underlying echoing discourse—pertaining to the anthropogenic and converse *Life* seen through prismatic lenses of environmental, human and artificial forms—was present in this year’s applications. AI and computation, the contextual hub of robotics, were represented by a range of works that, rather than engaging in the manipulation of life on a biological level, are developing the essence of life as an artificial entity. A common trend in the submissions from the field of robotics projects was how to create a spark of being in an artificial body—with works transmitting the last words of

farewell and prayers of a dying person into the robot software; seeking life-likeness—computational self, and environmental awareness; autonomous, social, and unpredictable physical movement; through to the raising of a robot as one’s own child. This is just a small sample of the artificial ‘life sparks’ in this year’s category. Interacting with such artificial entities draws us into both a practical and ethical dialogue about the future of robotics, advances in this field, and their role in our lives and society.

At the same time, many powerful works that deal with social issues were submitted. The jury felt that even if ALife, AI, and robotics seem separate to some, it is important to show how they are connected. Freedom of speech, labor, and our environment are all deeply influenced by the machine algorithms and pretty soon we will stop being able to tell the difference between them. This raises a lot of issues for the shifting landscape of the global economies. Social networks have entered the establishment and are being manipulated by various interest groups. Personal data and value is used in ways that threaten the basic ethics of shared public spaces, potentially creating a two-tier society. Empathy for the Other—whether we’re talking about gender, nationality, or economies has to be the central quality that informs interactions between humans, animals, machines, and robots.

Golden Nica

BitSoil Popup Tax & Hack Campaign LarbitsSisters

While the government institutions are still immersed in a complex process of regulation and legislation of the global economy, the Belgian duo LarbitsSisters has taken a step forward with their interactive project *BitSoil Popup Tax & Hack Campaign*. The jury agreed that this initiative deserves the Golden Nica as it highlights and addresses the indiscriminate profit that the main tech corporations and Internet service providers make with the personal data of the users. The jury has assessed, on the one hand, the conceptual relevance of the project. It consists in the development of a critical tool that demands the restoration of a new equilibrium in the digital economy through a tax collector-bot system which controls

the use of the data of each citizen by global companies. On the other hand, the jury has considered the originality and solvency of the materialization of the installation in its off-line and on-line version. It has been developed as the sum of a process of interdisciplinary scientific research, philosophical reflection, and artistic practices, setting up a device of VPN connections, AI and tax collector bots at the service of a global system of economic and social welfare.

Awards of Distinction

Alter · Kohei Ogawa, Itsuki Doi, Takashi Ikegami, and Hiroshi Ishiguro

Alter was developed in a cooperation between android researcher Hiroshi Ishiguro and artificial life researcher Takashi Ikegami. Although this robot has a very mechanical appearance, its movements give the impression of aliveness. *Alter's* movements are not determined beforehand. Audience responses are perceived by *Alter's* sensors and simultaneously reflected in *Alter's* movements. Autonomous algorithm generators and artificial neural networks spontaneously fire and send signals to each other which makes it possible for *Alter* to constantly evolve and develop its own personality. The jury recognizes a novel interaction between a human and the robot and between the environment and the robot. We don't know how the *Alter* personality will evolve, nor can we know how this kind of symbiosis between humans and machines will change humanity. In this regard the jury states that *Alter* represents a step forward in android science projects.

[help me know the truth] · Mary Flanagan

The perception of the other is often altered by experiences, beliefs, prejudices, and other factors that belong to our individual and collective unconscious or our social and cultural context. Even more so when it comes to reproducing this cognitive system in a computer program, which has been developed in a neuroscientific research context and can be applied in surveillance and security devices. Mary Flanagan's *[help me know the truth]* is an interactive installation that uses cognitive neuroscience algorithms to show the fragility and instability of our perceptual systems, be they of an organic or artificial nature. In this installation, the jury valued the use of neuroscientific software that allows the users to experience, through the interaction with the system, the weak plot of diffuse values that are barely sustainable to help us know the truth.

Honorary Mentions

AI DJ Project

A dialog between human and AI through music

Nao Tokui, Shoya Dozono / Qosmo

AI DJ Project—a dialog between an Artificial Intelligence and a human DJ is a live performance in which the AI is not a replacement for the human DJ but instead a partner that can think and play together with the human. This approach was acknowledged by the jury. To achieve this the creators trained several different neural networks and used a reinforcement learning system to teach the AI model how to speed up/down, nudge/pull the turntable, and align beats through trials and errors. With a camera system, the AI can also sense how much the audience dance to the music being played and uses this information in further music selection. The jury felt that this unpredictability brings a provocative tension to the AI–DJ performance and challenges the audience to wonder what the AI system will do next.

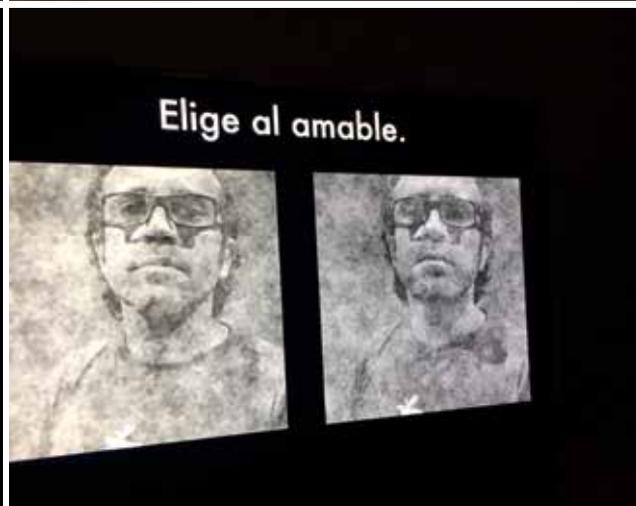
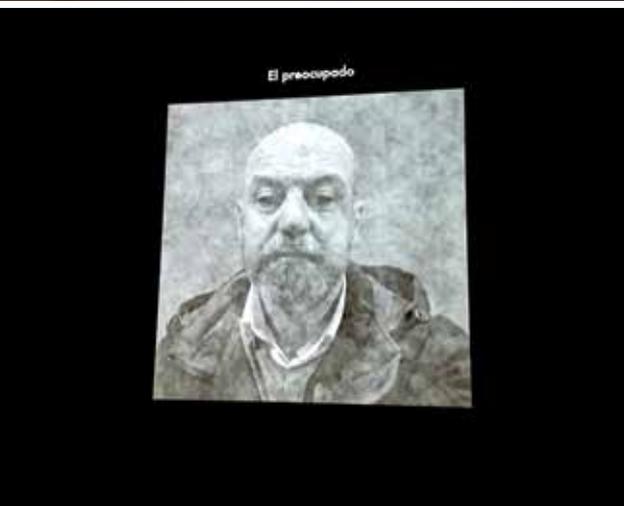
Conspiracy: Conjoining the Virtual

Kristin McWharter

Virtual Reality tends to isolate users from their social context by transplanting their vision into an alternate reality and in a gallery. These user experiences capture audiences in a state where they feel alone—despite their bodies existing in public or semi-public space. The jury felt that this work uses participatory interaction in ways that effectively amplify the tension between competition and intimacy in social spaces. Individual subjectivity within collective decision is enacted publicly as five people interact through a sculptural object, each directing their own VR experience. The sculptural form that brings these players physically together cultivates a tension between collaboration and competition that questions individual agency. Restricted movement limits their sense of agency and also brings awareness to their body and to the other bodies that are simultaneously participating in the physical / virtual and public space.

Digital Shaman Project · Etsuko Ichihara

The *Digital Shaman Project* proposes a new model of grieving through the robotics platform. A full-scale 3D printed mask of the deceased's face is placed on a humanoid robot with a specially designed program that can mimic the physical characteristics and the personality of that individual. For the time of mourning, the mimesis of the humanoid robot allows it to serve as a host of the deceased person.



[help me know the truth]

Mary Flanagan

[help me know the truth] is a software-driven participatory artwork in which visitors first snap a digital self-portrait (or “selfie”) at the gallery. The image is then sent around the gallery’s network and appears on digital stations located around the gallery. Using the tools of cognitive neuroscience, the faces are manipulated with noise patterns to literally, through time and user input, “construct” the perfect stereotype.

On digital stations in the gallery, visitors are asked to choose between two slightly altered portraits to match the text label shown. By selecting slight variations of the images over time, differing facial features emerge from what are otherwise random patterns that reveal unconscious beliefs about facial features or tendencies related to culture and identity. *[help me know the truth]* utilizes Reverse Correlation to investigate how psychological responses to people’s faces might uncover both positive and negative reactions to those who visit the gallery. The viewer/participant chooses between two identical selfies, where different computational noise has been applied. The faces appear somewhat blurry, so the viewer/participant chooses one blurry image over another that might match criteria given. The list of prompts for visitors to the gallery ranges from the politically-charged to the taboo: “Choose the victim;” falls after “Indicate the leader” but might lead to the timely, “Select the terrorist.” Other judgements passed by visitors include identifying which face is the most angelic, kind, criminal, etc. Through choosing faces manipulated by particular noise patterns, facial features emerge that reveal larger thoughts and beliefs about how we fundamentally see each other.

Why do people—even internationally—tend to gravitate towards similar stereotypes? Bias against “the other” is a dangerous impediment to a just Twenty-First Century society, in part encouraged by our own neurological structures that have not caught up with our lived realities. Hyper-scale image-based categorization is being deployed in government and surveillance programs worldwide. These processes demand our critical attention. Where do we find the “truth” about each other this way?

[help me know the truth] raises awareness about the unconscious stereotypes we all carry in our minds, and how these beliefs become embedded in myriad software systems including computer vision programs. My intent is to both utilize and question how computational techniques can uncover the categorizing systems of the mind, and how software itself is therefore subject to socially constructed fears and values. *[help me know the truth]* provokes discussion about the types of biases that surround us: that we are under global technological surveillance is troubling; that the humans involved in crafting these systems, the systems themselves, and the people brought in to make final calls on various warnings, alerts, and arrests are all products of unconscious biases, is troubling. Perhaps software systems do not help us know the truth at all.

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Mary Flanagan (US) plays with the anxious and profound relationship between technological systems and human experience. Her artwork ranges from game-based installations to computer viruses, embodied interfaces to interactive texts. In her experimental interactive writing, she’s interested in how chance operations bring new texts into being. Flanagan’s work has been exhibited internationally at venues including The Whitney Museum of American Art, The Guggenheim, Tate Britain, Postmasters, Steirischer Herbst, Ars Electronica, Artist’s Space, LABoral, the Telfair Museum, ZKM Medienmuseum, and museums in New Zealand, South Korea, and Australia. She was awarded an honoris causa in design in 2016, was a fellow in 2017 at the Getty Museum, and in 2018 she was a cultural leader at the World Economic Forum in Davos.



[help me know the truth]

<http://maryflanagan.com/work/help-me-know-the-truth>

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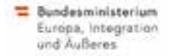
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(DOT ART DOMAINS)



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