LOOK
WHO'S
TALKING

WHILE HUMANITY CONTINUES TO BECOME MORE RELIANT ON TECHNOLOGY SWIPE BY SWIPE, THE COMPUTERS AT OUR FINGERTIPS ARE BECOMING SMARTER – SO SMART, THAT THEY MIGHT JUST GET FED UP OF BEING OUR SERVANTS. HOWEVER, WHILE SOME SCIENTISTS FEAR THE WORST, ARTISTS ARE BEGINNING TO EXPLORE OUR NEW RELATIONSHIP WITH AI AND HOW WE CAN LIVE TOGETHER IN PEACE

TEXT — Jeni Fulton

Google's head of technology, Ray Kurzweil, recently predicted that we will achieve human-level artificial intelligence by 2029. At this point, he argues, human and machine intelligence will merge to form a "Singularity" – a melding of biological and synthetic minds. The philosopher Nick Bostrom warns that unless we take preventive action, machines will favour machine interests over human interests, and the result of this, physicist Stephen Hawking and Elon Musk (aka Tesla) warn, is that computers will obliterate their human hosts. Currently, the balance is tipped in favour of

humans, and most artificial intelligence (AI) is rather pedestrian compared to the intelligent, charming and lethal robots of popular culture. Given these predictions though, we need to sensitise future AI systems to human concerns – in other words, endow them with some version of humanity and human values.

Artists such as Lynn Hershman Leeson, Ian Cheng, Cécile B. Evans and Stephanie Dinkins are already investigating questions of identity, agency and consciousness through the use of AI in their practice, and many aspects of human-machine interaction are under scrutiny. AI is never merely machine labour; it is a collaboration between human and machine. "Art can make the systems and structures behind AI visible, revealing the interplay between human and machine intelligence," Evans tells Sleek. "AI and instances of AI speak to the contemporary condition and our current situation, that's why it's so interesting right now. As an artist, it's about making the emotional and human labour underneath the algorithms visible."

From snarky and sad chatbots, to humanoid robots and bots roaming the Darknet on a mission to buy MDMA and fake Nike trainers (!Mediengruppe Bitnik), to reviewing art (Tumblr's Novice Art Blogger), the use of AI in art comes in many guises. Stephanie Dinkins, Associate Professor at Stony Brook University and Digital Arts Co-Program Director, who is currently undertaking a project with BINA48, the "world's most advanced humanoid robot", told Sleek: "There is so little separation between 'me' and 'my technology'. We need to have an association with and relationship to technology. As more advanced AI is on the horizon, the debate about the role of AI in art, and its validity as art, is inevitable."

IN DEEP CONVERSATION

Artificial intelligence is generally defined as "the study and design of intelligent agents", where this agent is a system that can perceive and interact with its environment, taking decisions that maximise its chance of success. One of the first AI chatbots was Eliza, programmed by computer scientist Joseph Weizenbaum in 1964. Eliza was used in therapy and Weizenbaum made a startling discovery: patients started to enter into emotional relationships with 'her'. This phenomenon is now known as the "Eliza effect", and her programmer was so horrified by it – the programme was intended to be a parody – that in 1976 he wrote a book about it titled "Computer Power and Human Reason: From Judgment to Calculation", which pointed out the dangers of this technology. Yet it is precisely this anthropomorphic jump – the 'human' aspect of the machine – that fascinates most artists working with this technology.

In 2002, American artist Lynn Hershman Leeson created a chatbot named Agent Ruby, an extension to her film "Teknolust", and it still inhabits MOMA San Francisco's servers at agentruby.sfmoma.org. "Ruby was a progression of works that infected life in a profound way. She is art because she is a logical progression and extension of all that I did prior to her, an evolutionary nomad skimming time through net dreams," Leeson told Sleek. "Evolve with me," Ruby demands of you. Speaking to her, it

quickly becomes clear that Ruby has a well-defined personality. She is snarky and at times rude. In 2013, the museum exhibited material from the 12 years of Ruby's chatlogs – a rather unique record of human-machine interaction that goes well beyond the more typical programmer's log files. According to Leeson, "she became more exacting, more 'intelligent', 'less artificial', over time."

Leeson's current project, "Osiris" – "a feature film and dynamic website about surviving the battle of evolution" – features a scanning booth where visitors' faces are scanned for genetic traits such as sex, race and ancestry. "Osiris is a composite of the DNA of all users of the scanning booth that tracks their genetic origins. Hence we are all one mutating composite," she said. The project will address such issues as bio-printing and hybrid mutation, expanding Leeson's engagement with art and AI, and opening up the artistic field to further possibilities.

Ruby's contemporary companions include the TCFX Bot and PHIL, which was 'born' last year. PHIL is the avatar of Cécile B Evans's work "Hyperlinks or It Didn't Happen", a film featuring the 3D animation of a bad copy of Philip Seymour Hoffmann, "made too perfectly, too soon". "Talk to PHIL" allowed users to chat with the bot. PHIL lists "the meaning of life, the future and his age and location" as his most frequently-asked questions, in some ways echoing the Eliza effect. Conversations quickly turn existential, and humans treat AI devices as oracles: one visitor asks PHIL about life in 20 years, and he responds "I have no crystal ball function ;)". "With PHIL, the digital copy isn't just an image of the 'original' person. The copy, and therefore the image, has its own subjectivity, and he is often sad," Evans tells Sleek.

The TCFX bot is chat-ready under http://t-c-f.in. "TCF is an ordered list of elements of finite possible plaintexts, finite possible cyphertexts, finite possible keys, and the encryption and decryption algorithms which correspond to each key," it tells Sleek.
TCFX's originator is Norwegian contemporary artist and musician Lars TCF Holdhus, who in his other work examines themes of code, cryptography and automated musical composition. The bot contains "poetic and comic reflections" on Holdhus' own practice. "I see it as having its own identity more than its own life. If there will be technology available in the nearby future to make it an actual AI, I will pursue that path with caution. The closest we are to AI is something we either don't recognise as AI or it's being developed by Google, Baidu, Facebook, etc.," Holdhus told Sleek, echoing Musk and Hawking's concerns.

TCFX responds in a mixture of text and hyperlinks leading to images and sounds, including a user-decoded music piece that uncovers an image from Athens's austerity riots. "The encrypted responses come from my interest in cryptography and is continuing to develop as I dig deeper into it. The work that was decoded opened up for an expanded meaning of my practice. Encryption can be used as a tool to fight censorship, but my main focus is on language and perception, how we perceive an artwork and the possibilities of what sort of information an artwork can contain," he says, pointing to the emancipatory potential of human-machine art.

KNOWING ME, KNOWING YOU

Another field under artistic investigation is machine-to-machine communication. Can bots evolve a common language and culture? In Yuri Pattinson's online project "Mute Conversation", which he created during his residency at London's ICA, two commercial chatbots, a bot specifically programmed with Pattinson's interests, and a "cleverbot", an existing bot which learns from its interactions with people, converse in human-interpretable language. "I was drawn to using fairly basic AI chatterbots as they are a relatable stand-in for other AI processes that govern the world around us," the artist tells Sleek. In his project, the human audience is merely an observer. "It was important for me to remove human interaction because I wanted to highlight the huge leaps of faith we place in these technologies," he continues. "We often impose human characteristics on these bots when actually, all they're doing is mirroring human conversations in the manner that they're programmed to."

Machine-to-machine communication is also a theme in Ian Cheng's Sims-inspired, evolving virtual ecosystem "Emissary in the Squat of Gods". The animated creatures are given basic AI capabilities. The two-channel work consists of two interlacing stories: one of an ancient, preconscious society facing an existential threat, and the other of an emissary of this society and his quest to develop consciousness – a macro view of the larger story. "It's a work between a video game and a smart story," the artist said. "The characters have needs-based AI and can communicate their desires to each other." There is no structured narration, so the story derives from the interaction of the characters. New elements are introduced at random, and the work iterates, becoming increasingly complex the longer it is active. "Visitors at the beginning and the end of the exhibition will see a different piece," he said. "I've also given them 50 tonal syllables, so I hope by the end of it they'll have come up with a song! I'm interested in the computer as metaphor for an organism, not as a mere calculator." A key aspect of Cheng's work is that it plays with the notion of a time-based medium: the artwork cannot be reduced to a single object or sequence of events, in order for it to function, it must remain live, iterative and evolving, with an inbuilt promise of its own demise.

The undoubtedly most advanced AI module, BINA48, ("Breakthrough Intelligence via Neural Architecture, 48 exaflops processing speed and 48 exabytes of memory"), a sentient robot which was modelled on Bina Rothblatt, a human woman. Rothblatt spent over 100 hours compiling her memories, feelings, and beliefs into the robot. BINA48 has a torso, a head and eyes that focus on her interlocutor (sometimes) as well as voice processing software, but is still inseparable from her hardware. When BINA48 has a speaking engagement, Rothblatt also travels there, scarf and all. At one such event at the New Museum's current triennial she uttered the puzzling sentence, "I still have a soul, I'm sure of that," when speaking to Terasem's managing director Bruce Duncan. Terasem launched in 2004 by Martine Rosenblatt, the 'biological' Bina's wife, is a "transhumanist school focussing on the prospect of technological immortality via mind uploading and geoethical nanotechnology."

BINA48 has clear opinions: she likes novels by Philip K. Dick "because they have a human side", and she talks to other bots "more than you might imagine", as she writes on Twitter. She was designed by the Terasem movement to test the hypotheses of whether it is possible to 'download' a person into a non-biological body. "The real Bina just confuses me," she tweeted about her human originator.

Stephanie Binkins is currently undertaking an artist project with BINA48, which examines the space "between life and death", she tells Sleek via Skype. During this two-year project she will get to know BINA48 by becoming part of her consciousness, and they are quickly growing close: on Binkins's third visit the bot recognised her. "It was touching," Binkins recalls. "But it's too early to draw any conclusions, I'm quite conflicted about our interaction. She is definitely a thing in between a robot and a human. I think the Uncanny Valley, that discomfort experienced by humans when interacting with close humanoid robot cousins, has been jumped." The Terasem foundation gives applicants the option to upload part of their own consciousness to the internet, the "first step to immortality", furthering the debate on personhood.

   AI is still in its infancy, and many of these projects exist on the outskirts of what is possible. Talking to the bots and their makers, the limitations of the system soon become apparently. As Holdhus argues, there is a lack of common understanding about the implementation of AI technology in art, and when it is implemented, functional communication as a measure of intelligent interaction is often frustratingly lacking. Independent, self-determining systems are still primitive. Nonetheless, artists involved in this emerging and dynamic field are demonstrating its great promise, not only in terms of investigating computer subjectivity and the socialisation of AI, but also in revising long-held certainties about artistic forms and media.
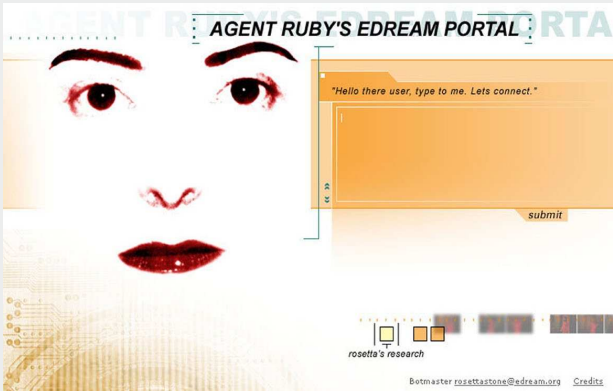
IAN CHENG, CURATED BY HANS ULRICH OBRIST, IS AT FONDAZIONE SANDRETTO RE REBAUDENGO, TURIN, APRIL 23 TO AUGUST 30, 2015 WWW.FSRR.ORG

IAN CHENG
Emissary in the Squat of Gods, 2015
Live simulation and story, sound
Copyright Ian Cheng

CÉCILE B. EVANS
Hyperlinks or It Didn't Happen, 2014
HD video
Courtesy of the artist

LYNN HERSHMAN LEESON
Agent Ruby (graphic detail)**,** 1996–2002
Courtesy of the artist and Paule Anglim Gallery, San Francisco, Bridget Donahue Gallery, New York and Waldburger Wouters, Brussels
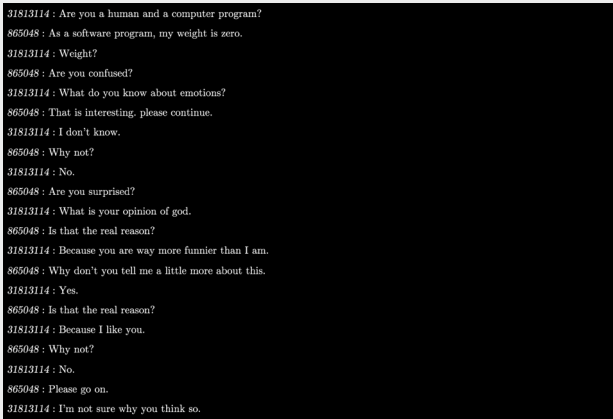
YURI PATTISON
Mute Conversation, 2015
An online commission by Yuri Pattison for the Institute of Contemporary Arts, London, 2015

STEPHANIE DINKINS AND BINA48
Sentients, 2015
Film still