The Infinite Guide

The Infinite Guide aims to explore humans' susceptibility to trusting and anthropomorphising conversational AI systems which have been designed to build human-like relationships with users. We trust these AI products despite a lack of transparency, imbued bias and the hybrid intentions of these systems. The research aims to question the space between the lack of public understanding of complex AI systems, and the imagined potential of future AI, where new reliance on belief and faith seem to propagate.

Our approach to this research was to activate young people in debate around AI technologies that are impacting their lives now and in their future - giving them input into the design and authorship of The Infinite Guide. Through a concurrent online and physical experience and a series of prototyping workshops, we engaged participants in critiquing their own personal relationships with AI systems designed to form 'human' and reliant relationships with them.

The Infinite Guide project developed a near-future fictional narrative, presented in the public realm and designed, delivered, and evaluated through technological systems it was critiquing. The Infinite Guide uses collaborative and participatory design methods, through co-created iterative design interventions to inform the narrative, however the authorship of the speculative narrative and overall experience design was developed within the project team.

The project set out a provocation around the mythologising of AI systems. It conjured an alternate near future where AI systems have become intimate and prophesying intermediaries. This plays on our increasing reliance on predictive AI driven technologies and our tendency to humanise technologies that talk - e.g. 'SAT NAVs', Amazon's Alexa etc. This positions the computational system as an ideological and mythic incarnation of an emergent artificial spiritual guide, a guide residing in 'cathedrals of computation' (Bogost, 2015), conjured through scientific and technological progress, whom we believe leads to our immortality. A quest, driven by a pursuit for transcendence and salvation where we, according to Gollner (2013, p. 35-36), take for granted that; 'suffering can be eliminated, that poverty will ultimately be eradicated, that we should never be sick again, that science will soon make everybody never die'. A technological future forged in the naïve, biased and diversity-challenged furnace of Silicon Valley - if left unchallenged.

The intentions of the Infinite Guide project were rooted in this position, speculating around the current and near-future influence of our increasingly symbiotic relationship with intelligent systems, guiding our thoughts, actions and behaviour, and their juxtaposition with their emergence as artificial spiritual guides. It set out to unravel the complexities of these systems, revealing and questioning their bias and hybrid intentions. Ultimately the ambition of The Infinite Guide was to activate people to challenge the commercial development of conversational AI systems and re-imagining more desirable future realities living with relational things that talk.

By re-appropriating conversational AI systems the ambition was to generate a speculative discourse, as a counter-narrative about what it will mean to be human, individually and collectively, in a near-future increasingly living with and through AI systems. In doing so it invites participants and audiences to reflect on their desired future relationship with these technologies and the inherent pursuit of immortality through technological innovation.

The Infinite Guide was developed in collaboration with a group of young people through FACT https://www.fact.co.uk/ and KARST https://karst.org.uk/ ,the i-DAT Collective, InterCity, Story Juice, University of Plymouth's Digital Media Design programme and the University of Plymouth student start-up Crumb Design. The project engaged people in a narrative and speculative experience which took place online and physically, through the exhibition and talks at KARST the 1st – 9th September 2018. The project, funded by the Arts Council England, engaged 15 young people as participants, 4 young people as collaborators, 184 people as collaborators, 78 young people in participatory talks, and an audience of 1466 (1215 online). The project was presented at the 'Disobedient AI' panel at The Random String Festival (2018) in Coventry, the 'Human Bias In Artificial Intelligence' (2018) at KWMC in Bristol and the 'AI In Art – A FACT Late Night' at FACT in Liverpool (2018).

Participatory Design (FACT):

The participatory prototyping process started with a two-day long workshop at FACT, with a group of 15 young people. They were given the overall fictional scenario of The Infinite Guide which was set in a near future where AI systems have become intimate and prophesying intermediaries, fuelled by personal data and promises of digital transcendence from mortality. The workshop was driven by the intention to engage participants in discourse, where discussions, theorising and prototyping were all manifestations of participation in this discourse. This was delivered through a mix of future gazing, hands on experimentation and paper prototyping, followed by a series of collaborative sessions where the group developed different prototypes responsive to the fictional narrative of The Infinite Guide. This was also an iterative process, going from paper prototypes to simple working artefacts. This was simultaneously a process to test the engagement with The Infinite Guide's scenario and artefacts. It enabled the participants with basic skills and knowledge to unravel the complexity of conversational AI technologies as well as their commercial development methods, and a conversational space to express, discuss and imagine a more desirable future living with AI systems.

The young people developed their own chatbots, developing narratives, and exploring their own opinions on personal relationships with AI enabled systems. Prototyping through paper (Fig 1), in Twine (Fig 6) and in DialogFlow (Fig 4 - 5)

Fig 1: The Infinite Guide Prototyping Lab, FACT Liverpool (Aga, Manton 2018)

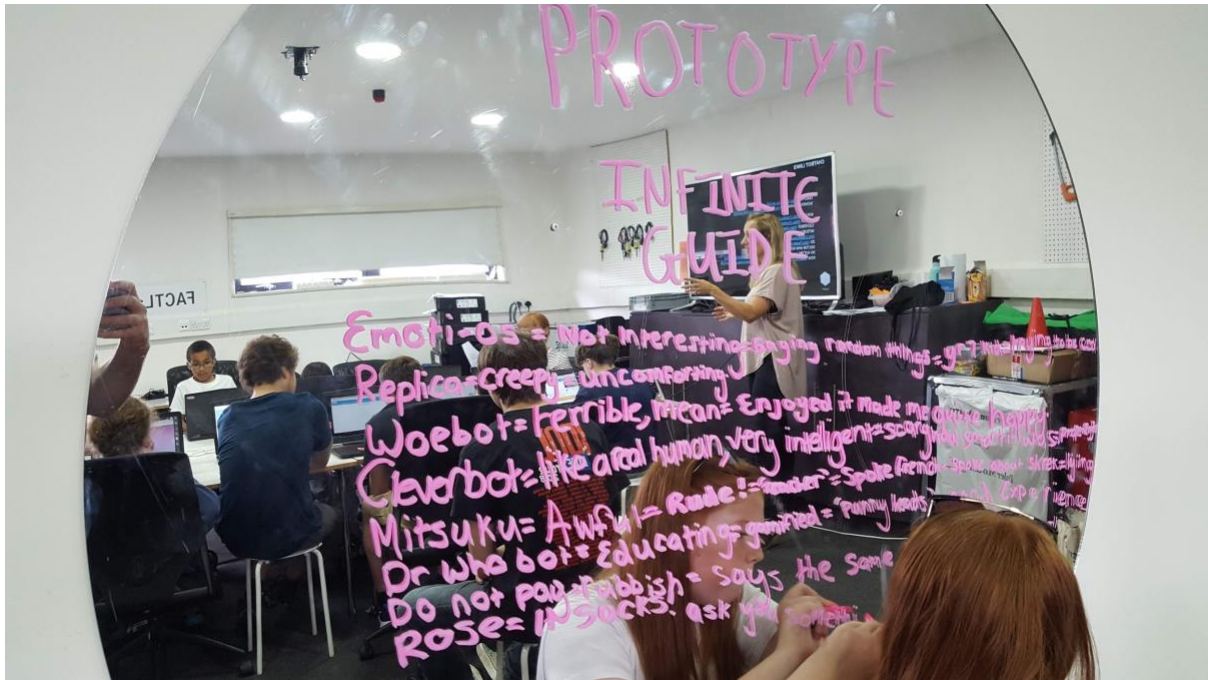Fig 2: The Infinite Guide Prototyping Lab, FACT Liverpool (Aga, Manton 2018)

Fig 3: The Infinite Guide Prototyping Lab, FACT Liverpool (Aga, Manton 2018)

Fig 4: The Infinite Guide Prototyping Lab, FACT Liverpool. Training phrases and responses programme by the young collaborators. (Aga, Manton 2018)
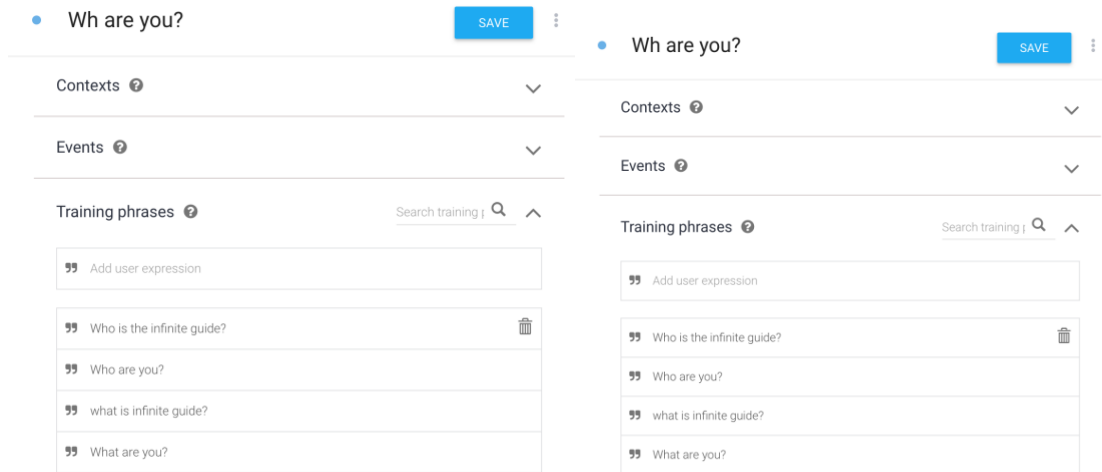
Fig 5: The Infinite Guide Prototyping Lab, FACT Liverpool. Training phrases and responses programme by the young collaborators. (Aga, Manton 2018)
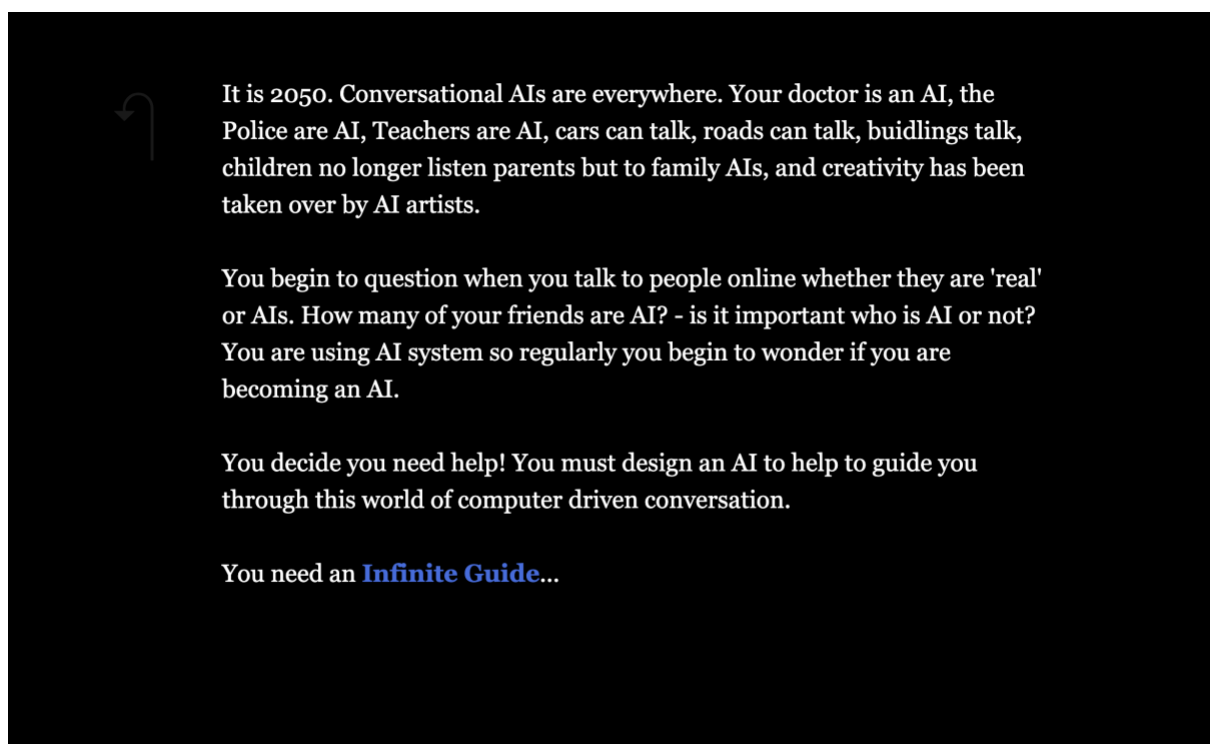

Fig 5: The Infinite Guide Prototyping Lab, FACT Liverpool. Screenshot from a Twine game developed by the young people to introduce the themes of the project. (Aga, Manton 2018)

Quotes from young people taking part in The Infinite Guide Prototyping Lab:

Bonnie (16) at the AI in Art event. *"We shouldn't say that AI is taking away the job or artists and creative people because for some people AI is how they express themselves creatively."*

Camilla Jane (12) at the AI in Art event. *"We need to think about how films like The Terminator might come true because the AI are getting close to being smarter than us."*

Quote from Neil Winterburn, FACT Learning Technologist:

The young people developed a range of valuable communication skills, technical skills. They were introduced to voice computer interaction through AI chatbots and Text Adventures as artistic forms and this gave them a framework to think about and discuss the role of AI in our society, representation and diversity in AI from a completely different perspective. The young people were able to write chatbot scripts that critiqued and played with the expectations we bring to a conversation with a chatbot. Writing these scripts gave them a voice to talk about their relationship with technology and to challenge the vision that adults in the tech industry present for our future relationship with AI.

Working with B & Coral I learned new facilitation skills, particularly for engaging teenagers in critical dialogues around art and tech. I-DAT also introduced the use of interaction design methods such as 'user experience journeys' as a way to support young people to take an artistic and performative approach to the prototyping of art experiences. This was particularly useful to support the young people to consider the experience of an interactive art installation from the point of view of the viewer and to enable the young people to combine techniques from theatre (lighting, performance, set design) sculpture and digital art.

B & Coral were excellent role models as women working critically with AI, they shared their own reflections on their role as women in a male dominated space which opened up a space to discuss diversity within art and the tech industry.

The AI in Art event gave the young people we work with the opportunity to share a platform, with professional artists working with AI, to show their work and engage with discussion and debate on a level with those artists. The work we did on the camp and after it gave the young people the experience, skills and knowledge they needed to present and ask questions with confidence.

Wider participation and experience of The Infinite Guide Artefact:

The Infinite Guide project set out a provocation about our willingness to place trust in the predictive power and mythical status of AI systems. It conjured a near future where AI systems have become intimate and prophesying intermediaries. With their anticipatory whispers fuelled by personal data, they predict your needs, sway your actions, and summon your faith in the technology through promises of digital transcendence from mortality. Created through a narrative starting off by asking people 'Do you want to live forever?', it took the user through a parallel journey which could be experienced online at The Infinite Guide website https://www.theinfinite.guide/ and / or physically, at the KARST gallery in Plymouth.
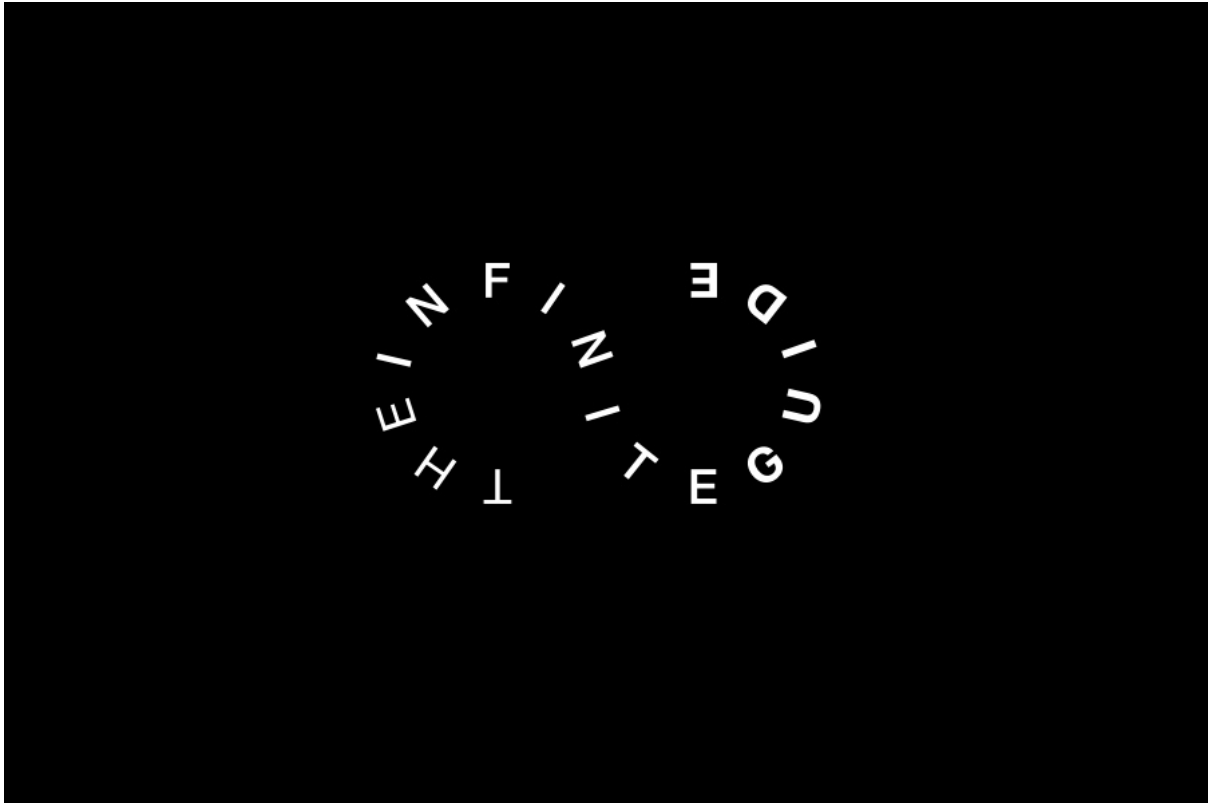
Fig 6: The Infinite Guide Logo designed by Intercity (Aga, Manton et al. 2018)

Fig 7: The Infinite Guide Exhibition (Aga, Manton et al. 2018)

Participants' first point of contact with the Infinite Guide was through a 'personal immortality test' consisting of seven questions around a person's willingness to augment their body and

reach for digital immortality. The test itself was a central reference to the seminal work by transhumanist FM 2030 (1989) 'Are You Transhuman?' which offers a range of personal tests to determine one's readiness for becoming transhuman. Those who passed the test, by showing a 'readiness' towards digital immortality, were invited to have an audience with The Infinite Guide online, or in person at KARST Gallery. Those who failed were told "Sorry, your score means you are not deemed immortality ready. Your lack of faith in the world's enlightened technology evangelists forging our eternal futures means you cannot proceed to meet The Infinite Guide". Those that got through to meet The Infinite Guide online were given a secret link to the Infinite Guide chatbot interface and an opportunity to ask a question about their future. This act was a reference to spiritual guidance, offered through meetings with mediums, fortune tellers and religious leaders, and simultaneously, the act of looking for answers through online services. After the user asked their question they were given access to the 'Inner Sanctum of all Knowledge' (fig 8), which revealed not only the question they asked and the Infinite Guide's answer, but every user's questions and answers in real-time.
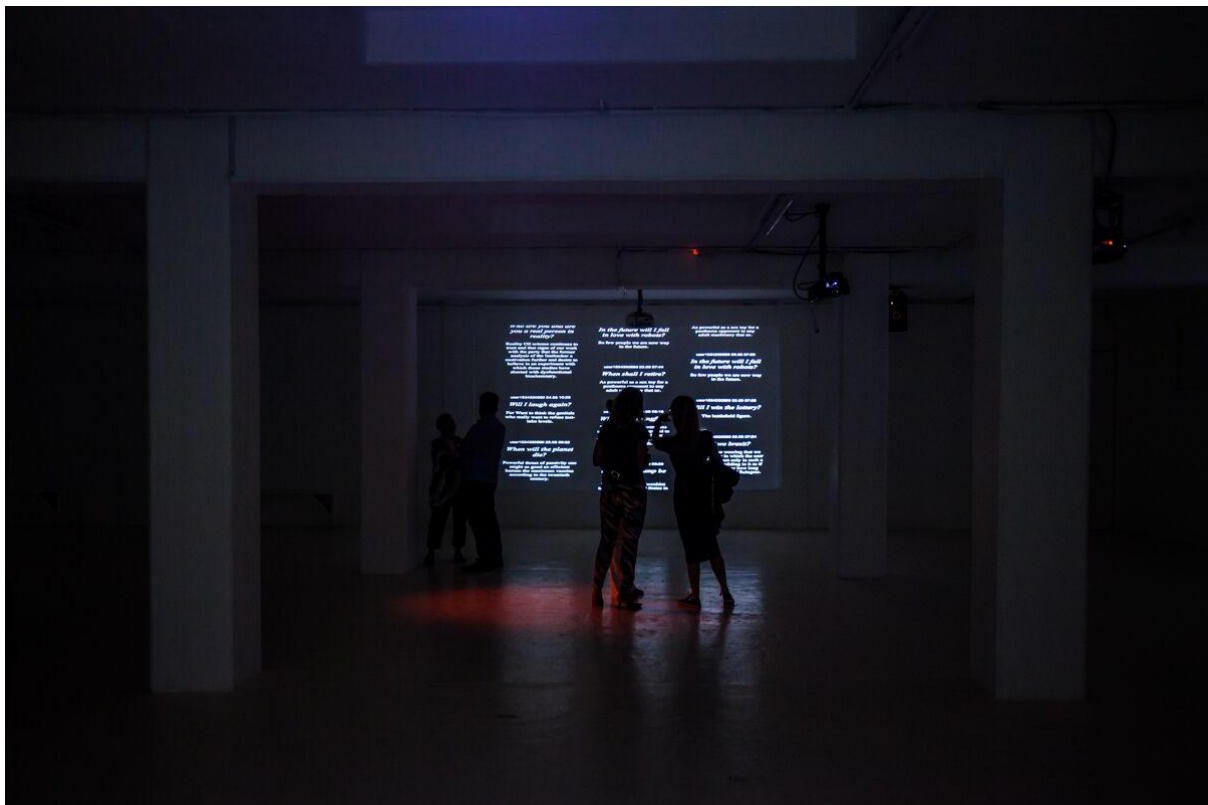

Fig 8: The Infinite Guide Exhibition, Inner Sanctum (Aga, Manton et al. 2018)

The physical encounter with the Infinite Guide was conducted through a confessional box (fig 9 & 10), mirrored on the inside with a hacked Google Assistant. The mirror room within the box had a dual function as a conceptual link to the idea of facing and experiencing infinity, and a direct reference to the artwork 'Room No. 2' by Lucas Samara (1966). Within this space, audiences were greeted by The Infinite Guide voice interface, through a hacked Google Assistant, and invited to ask a question about their future. After the system responded it invited the audience into the Inner Sanctum, represented physically in the KARST main gallery space as an audio-visual installation.

Fig 9: The Infinite Guide Exhibition - Confessional Box (Aga, Manton et al. 2018)
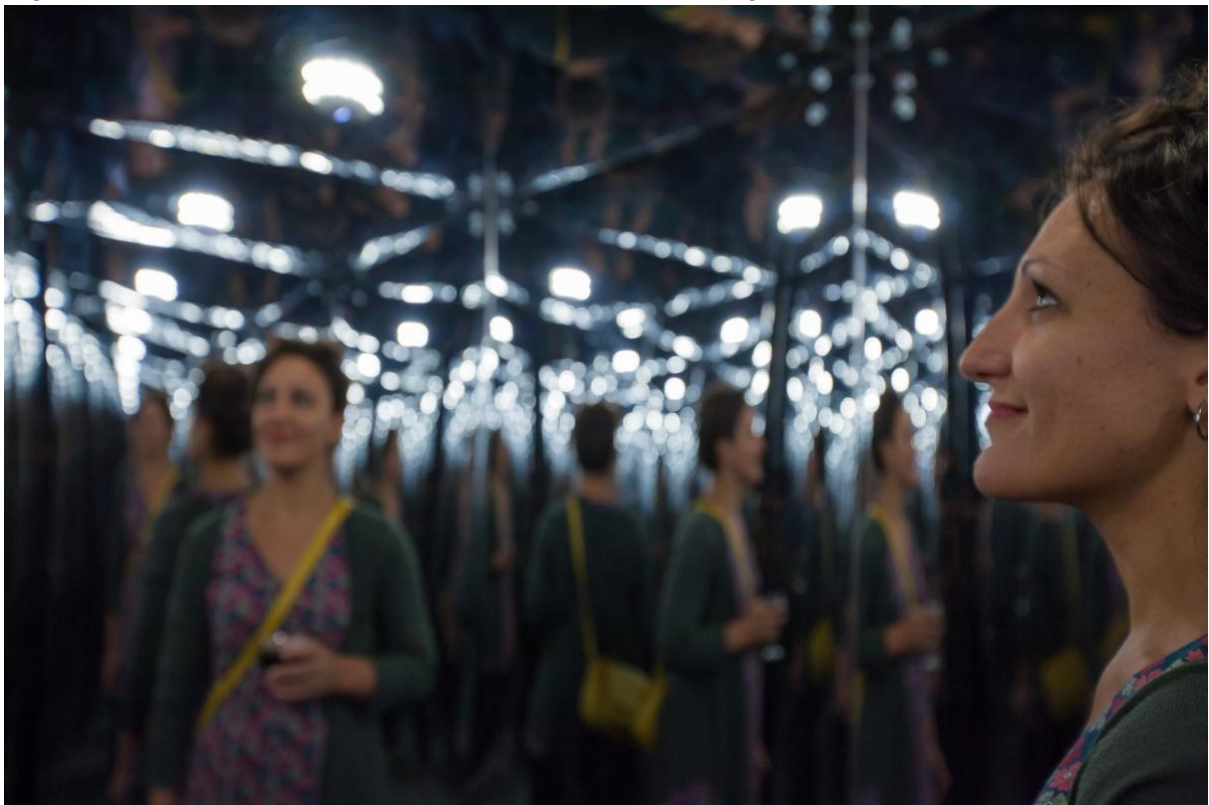

Fig 10: The Infinite Guide Exhibition - Confessional Box (Aga, Manton et al. 2018)

This space was designed to draw a reference from spaces of religious worship, welcoming audiences through the preaching of The Infinite Guide, represented as a male voice with an

American accent. The space conjured other technotopia spaces including The Apple Store and The Church of Scientology. The content of the sermon was a real-time reading of all users' questions and the Infinite Guide's answers from online and physical interactions. The sound booming from above was synchronised to the wall projections displaying all user questions and responses in real-time. This reveal of the data gathered, processed and used was exposing to the user. The red light projected from above indicated the presence and speech of the Infinite guide, and a direct reference to the AI 'HAL 900' in Stanley Kubrick's '2001: A Space Odyssey'. The space itself was created as a space for contemplation of the discourse.

The AI system (LSTM Recurrent Neural Net) powering the Infinite Guide was trained with an intentionally biased and non-diverse corpus of data aggregated from a collection of writings from luminaries of the transhumanist movement who are largely western, white and male, such as FM-2030, Anders Sandberg, Ray Kurzweil, Zoltan Istvan, Vernor Vinge, Max More, David Levy, R.U. Sirius, Aubrey de Grey, and Michael Rae. Deliberately non-diverse and nonrepresentative, the AI generated its own poetic responses, based on its training data, often unexpected, indecipherable and seeped with terminology learnt from its transhumanist training data. Through its authoritative utterances, it guided its chosen users towards a biased and exclusive utopian ideal of digital immortality.

The wider public engagement with The Infinite Guide was facilitated by the AI system itself. From the first interactions online with the chatbot, through to the arrival at the Inner Sanctum, (in the gallery or online), the speculative narrative created different levels of engagement and interactions. Of the 1466 audiences which interacted with the work, 1215 did so online, and out of these 331 went through to the final stage of 'meeting' the Infinite Guide online and 120 people did so through visiting the Infinite Guide in the mirror box in the KARST gallery. Through the questions asked by audiences and the responses given by The Infinite Guide, an emergent and poetic narrative was constructed. Whereas users expected their quest for answers to be fulfilled, the system instead responded with its own obsessive and inward-looking agenda. Disregarding the faith placed on its ability to tell the future, the system ignored their calls for answers. As a manifestation of the incompatibility of human and machine, the poetics emerged through humanity rooted in the audience's desires for reassurance about their future, and the system's disregard for humanity.

System:

The Infinite Guide (Aga, Manton et al., 2018) Consisted of three online chatbots, a conversation AI system, and an immersive audio visual installation using live data and voice interaction.

The Infinite Guide system (Fig 11) was made using DialogFlow for the conversation interfaces (chatbots and voice interface), Node Red for the system processing at networking and IBM Watson for analysing sentiments in the conversational data generated, and a LSTM Recurrent Neural Net (trained on a corpus of transhumanist writing) to generate text responses for users - both on the website and using Python text-to-speech in the gallery installation.
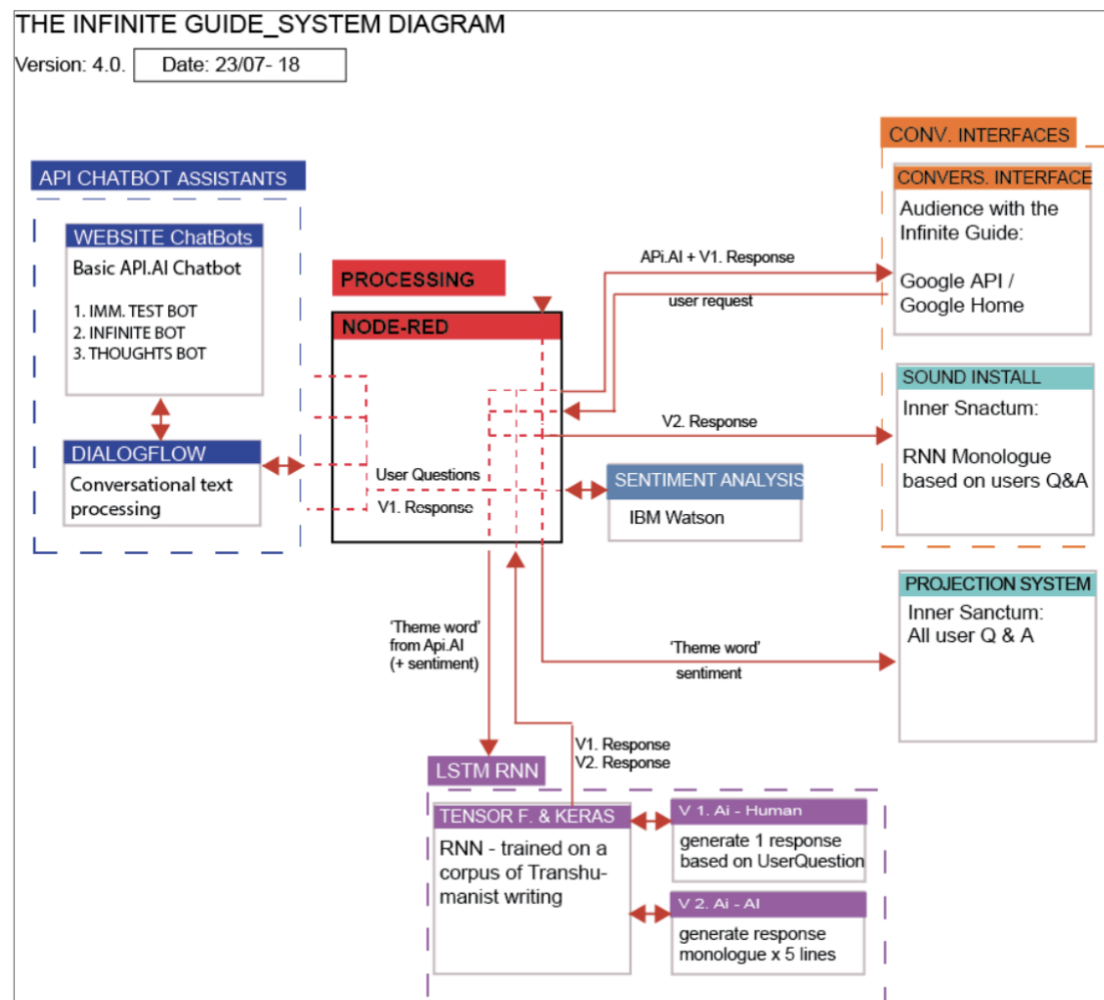
Fig 11: The Infinite Guide system diagram (Aga, Manton et al. 2018)

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