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Game Review
THE TURING TEST (Bulkhead Interactive)
Action-Adventure, UK 2016

The Turing Test is a first-person puzzle game developed by Bulkhead Interactive and published by Square Enix in 2016. The developers of *The Turing Test* previously also made the game *Pneuma. Breath of Life* (2015), which uses the same game mechanics. From a ludological perspective, *The Turing Test* closely resembles other games in its genre, such as *The Talos Principle* (2014) and the *Portal* series (2007, 2011). The player has to navigate through different levels that have been divided into sections. A save point is created between sections. In each section, the player has to navigate through a maze-like room in a moon base, and does so by manipulating energy balls, levers, and gravitation machines and by clever logical thinking. As in the case of *Portal* and *Talos*, some of the more difficult challenges can only be overcome by out-of-the-box thinking, using the game mechanics in new ways. The suggestion is that using these tricks amounts to 'cheating', but in fact the creators specifically designed them to be used.

The learning slope accommodates an easy pace, with new game mechanics introduced in an easy-to-learn manner. Player death does not occur in the game (with one possible exception). And while it is possible to restart a level at any time, to do so will only reset the puzzle; players do not do restart a level because they have died or become stuck in an insoluble situation. Ludologically, the game becomes quite repetitive, especially in its second part, but the deep narrative prevents the player from quitting before the very end.

THE TURING TEST: THE STORY

The player controls Ava Turing (what's in a name?), a female scientist onboard the space station Fortune, which is orbiting Jupiter's moon Europa in the year 2250. When contact with the ground crew is lost, Ava is awoken from cryostasis by Tom, the ship's Artificial Intelligence(A.I.). Tom sends her to the moon to in-vestigate what has happened to her colleagues, who have apparently cut off all contact with Tom on the Fortune. When he is in the base on Europa, Tom (who 'travels' with Ava and stays in contact with her through the radio) observes that

the ground crew appears to have rearranged the layout of the base in order to create a massive Turing test, supposedly to keep Tom from re-establishing communication with the ground base and its crew. Tom mentions that the test was the reason that he took Ava with him to Europa: she is able to solve the puzzles that Tom cannot solve. The Turing test plays an important role in the narrative of this game, which is also named after it, but I will come to its significance later. For the moment, it suffices to say that computer intelligence is typically unable to pass this test.

As Ava slowly works her way through the Turing-test maze, which the ground team has set up for her and Tom, she gradually discovers the horrible tragedy that has taken place both on the Fortune and on Europa. The crew found an exo-organism called 'organism 119' in the icy rocks of the moon Europa. This organism's astonishing qualities include virus-like behavior which triggers the DNA of its host to replicate itself very quickly and without the gradual degeneration associated with becoming older. Organism 119 essentially makes its host immortal. Unfortunately for the crew, they experimented with the organism on themselves, making themselves relatively immortal. The International Space Agency decides that the crew will never be allowed to return to Earth because of the risks that bringing an exo-organism to Earth entails, especially an exo-organism with such unprecedented capabilities.

Eventually the crew rebelled against Tom, who is the enforcer of this involuntary quarantine. The ship's A.I. guarantees the continuation of the life-support systems (air, water and food), but makes it impossible for the crew to return to Earth. After a certain period of time, as Ava learns during the game through audio and video samples, emails and log books, the crew rebelled against Tom's omnipresence and absolute control by removing a brain-controlling chip from their arms. The situation has come to a standstill: Tom controls the space station and the life support for Europa, and the crew on Europa is trying to keep the A.I. out of their lives.

HUMAN TRAGEDY

The Turing Test touches upon various philosophical and existential topics, the first of which is human tragedy. The crew is stranded on the moon Europa and the space station without any hope of ever returning home. Photographs and other private objects found in the living quarters of the space station are silent witnesses to the members' lost lives back home. One of the female crew members, Sarah, got pregnant and had a son, Minos. Unfortunately, the physical conditions far away from Earth prevented the embryo from developing properly, and Minos died shortly after birth. The captain of the crew, Daniel, committed suicide after giving Tom permission to use lethal force to prevent the crew

from returning to Earth. To quote Spock in STAR TREK II: THE WRATH OF KHAN (Nicholas Meyer, US 1982), "Logic clearly dictates that the needs of the many outweigh the needs of the few (or the one)." But STAR TREK also teaches us that it is all too human to try and break these laws of logic.

Because of the crew's confinement on Europa, its relative immortality has become a curse. What first appeared to the crew to be one of the greatest discoveries of humankind, the possibility of living forever, in fact means that its involuntary exile may continue for centuries. The reason Earth is unwilling to permit the return of the crew – contaminated as it is with organism 119 – to the planet is that the organism does not differentiate between good and bad. It revitalizes both good and bad organisms, both human DNA and cancer, as well as bacteria and viruses, in the same way. Death, *The Turing Test* ponders, may be something fearful, but it must not be eradicated altogether. Immortality is presumed to be a blessing, but it quickly turns into a horror.

Last but not least, crew members are only able to free themselves from Tom's influence by removing the chips from their arms. Unfortunately this leads to the loss of the whole forearm, leaving them handicapped for the rest of their days, which is pretty long given their contamination with organism 119. The organism repairs damaged DNA, but cannot re-grow an amputated limb. On a deeper level, the game hints at the notion that humankind can only free itself from its own dependence on ICT at the cost of great sacrifice.

TESTING THE A.I.

The game *The Turing Test* is named after a test developed by Alan Turing in 1950 to assess the ability of any given A.I. to exhibit intelligent behavior to such an extent that humans cannot recognize the A.I. as such anymore. A typical test involves two humans (one a responder and the other the interrogator) and one A.I. (a responder). The interrogator poses questions to parties A and B, one of whom is a real human being, and the other the A.I. If the human interrogator cannot tell which of his two dialogue partners is the human, the A.I. is said to have passed the test. The A.I. is then considered to have some kind of 'consciousness' of the world and its own being. The game *The Turing Test* develops this concept on different levels.

Level 1. As has been seen, when Ava enters the base on Europa, the rooms seem to have been rearranged by the crew to form one giant Turing test. As Toms observes: 'These rooms are Turing tests … designed to tell humans and machines apart. Typical problems, only solvable by a human. A combination of logical and lateral thinking.' The player assumes that he or she controls Ava, whom Tom has called to the rescue as he is unable to solve the room puzzles; they were especially designed to keep him out.

Level 2. When Ava (or rather the player through her) learns of the implications of the microchips implanted in the bodies of the crew members (and therefore also in Ava's body), Ava becomes aware that she has not been co-operating with Tom – following his instructions – of her own free will, but that Tom has been controlling her through the chip. Ava first realizes this after Sarah lures her into a Faraday cage, where she is free of Tom's control. Sarah explains that the whole set-up of the puzzle rooms was to free Ava temporarily from Tom's mind control. In this light, Ava's last name, Turing, becomes even more meaningful.

Level 3. The discovery of the real nature of the relationship between Ava and Tom means that the player comes to realize that he or she has not been playing as Ava with Tom's help, but – narratologically speaking – as Tom controlling Ava. *The Turing Test* thus forces the reflection upon the player that Tom's manipulation of Ava (which the crew members and Ava clearly reject morally) is not that different from the player's own attitude in playing the game. One might well ask what the difference is between the in-game A.I. Tom, who manipulates Ava, and the out-game player who does the same (whether or not through Tom's agency).

This last reflection surfaces somewhere else in the game in a more explicit way, but it is necessary to be aware of the game's meta-story to see why it fits. Ava discovers an abandoned computer terminal in a semi-dark room in one of the not-so-secret 'restricted' rooms of the game. Finding a way to the restricted rooms is in itself a kind of Turing test, because the player has to think out-of-the-box to reach them, by optimally exploiting the game mechanics.

When activated by Ava, the computer announces that it does not believe you are human ('you' as Ava and as player). 'This Turing test is not for you to see if I am a robot. It is to see if you are.' Once the computer is convinced that you are a robot (and there is no way to prevent it reaching that conclusion), it does not matter anymore which keys on the keyboard you press. The same texts appear suggesting that neither Ava nor the player has free will. 'I am a drone. I am controlled by my programming. I have no free will.'

Another hint can be found in the crew's quarters. In Mikhail's room, there is a painting of a man, probably made by Mikhail himself (as there are painting tools strewn about the room). Mikhail's painting closely resembles 'Rembrandt's self-portrait', an image made in April 2016 (just before the release of the game) by an advanced computer, imitating the style and technique of the Dutch master to such a degree that experts could not distinguish it from a real painting. This could be seen as a visual Turing test, which explains its appearance in this game.

A FINE LINE

Did any A.I. ever pass the Turing test? We could say that Tom passed. Although he claimed he needed Ava to pass it, he actually did so himself through Ava, controlling her with the mind chip in her arm. In a way, Ava did not solve the human-only puzzle rooms, Tom did. And although Ava thought she was in control, acting of her own free will, she was in fact an instrument of Tom.

On a deeper level, especially if we bear in mind the computer from the restricted area, it could be said that it was not Tom who was being tested and/or who passed the Turing test, but the player himself or herself. Successfully navigating through the game by solving all the puzzles, which were narratologically designed as a Turing test, the player has 'proved' himself or herself to be a human of flesh and blood, instead of an A.I. But we have to re-think this position when we return to the restricted-area computer, which continues to claim that you are a robot – both on the level of Ava/Tom and on the level of the player.

The Turing test has been criticized by experts for testing not the 'humanity' of the A.I. in question, but only the A.I.'s ability to deceive the human interrogator by pretending to be human. The most famous thought experiment in this field is that of the 'Chinese room', which also features in the game as one of the restricted areas. An English-speaking man (representing the A.I.) goes into this Chinese room; he has no knowledge of the Chinese language, but possesses a rulebook in English. Through a narrow window, a Chinese-speaking man delivers messages to the man inside. The non-Chinese man does not understand a word of these messages, but he is nevertheless able to deliver convincing answers to the man outside, using the manual, which instructs him how to answer in Chinese. The Chinese man outside thinks that he is having a conversation with another Chinese person inside, whereas the man inside has no idea of the nature of the conversation. The Chinese room experiment implies that it is not necessary for an A.I. to have any 'understanding' or 'consciousness' at all, as long as it has sufficient knowledge of the rules of human speech and speech interaction to be able to pretend to be human, just like the man inside the Chinese room.

Using both the Turing test and the Chinese room experiment, the player of *The Turing Test* might well reflect on the nature of being human through reversal of the A.I.'s perspective. Maybe language is indeed nothing more than a rule system we use to interact with one another, without truly understanding what each other is saying. Perhaps morality is nothing uniquely human, but is only a 'rule system', as Tom puts it in the game. And maybe creativity, often considered the most human quality of all, is, indeed, as Tom suggests, 'controlled chaos'. Tom states: 'You believe yourself to be a creative, but in mathematical

terms creativity is merely constrained chaos.' The game does not answer these questions, but stimulates the player to reflect on these issues.

The Turing Test is a very well designed game with good integration of narratological and ludological elements. Ludus and narratio are perfectly intertwined. The game leads the player to reflect on the advantages and disadvantages of eternal life, the nature of human freedom, the interdependence of computers and humans in the contemporary world, and the very nature of humanity itself. Perhaps it is not the computer but human beings who should pass the Turing test.

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