Academic Writing, assignment 8

Mick Koomen s4468252

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Abstract

In this article a new artificial intelligence (AI) is introduced, that is called Wiley. Wiley has passed the Turing Test with a majority vote of 85%. Wiley has been used in real world applications (e.g. in retirement homes) and the results will be presented in this paper.

1 Introduction

In this research paper, a new artificial intelligence (AI), called Wiley, will be introduced. Wiley has passed the standard Turing test, convincing 85% of the judges that partook in the contest. The Turing test is a test to distinguish computers from humans, it was proposed by one of the pioneers in computing science; Alan Turing. More thoroughly, Alan Turing proposed a first version, and a second version, called the original Turing test and standard Turing test, respectively. The article is about a new AI passing the second version of the Turing test. This article will start with a description of the standard Turing test and a small history of AIs, after that we will discuss what tools were used to create Wiley why these tools were used. It will then describe the potential of Wiley, this is done by showing multiple uses of Wiley in daily life, together with the scores people gave Wiley during working with him, these scores are then compared to the scores of other AIs doing the same activities. At the end of the article, we will conclude what Wiley means for the AI industry and how it can affect the future.

2 The standard Turing test

The standard Turing test is the second version of the Turing tests and is a test where there is a player A, a computer, and player B, a person of either sex. The third player, the interrogator, can not see player A nor B and is to determine which of the two players is the computer and which player is the human (by communicating via text). For an AI to pass the Turing test, it must convince 30% or more of the judges. In the Turing test used to test Wiley 30 judges were used.

3 History of artificial intelligence

AI has been around for long, in the beginning AI was only in theory, done by philosophers. Only in the 1940s AI was used in practice

4 Tools

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5 Wiley in practice

In theory the AI seemed to do a good job and it fooled a lot of the judges during the Turing test, however, its potential was not yet shown. To show Wiley's potential we deployed him in different areas to see if people could benefit from him in any way. We wanted to see if Wiley could help as a chatting partner, e.g. for people who feel alone or do not have anyone to talk to at the moment. The second deployment of Wiley was as an assisting position for companies, e.g. with customer service.

5.1 Chat partner

Loneliness is still an existing problem in today's society, and "80% of those under 18 years of age and 40% of adults over 65 years of age report being lonely at least sometimes..."[1]. It is further shown that ... loneliness predicts increased morbidity and mortality..."[1], therefore we were really eager to deploy Wiley as a chat partner to see if he could decrease the feeling of loneliness in people. The people that participated during the research were middle class people, between the age of 25 and 35. To do this, two groups were created, group A and B. Group A represents the control group, this group consisted of people with symptoms of loneliness, however, these people made no contact with Wiley. This group is meant to check how the feeling of loneliness develops for people who did not come in contact with Wiley, else the effect Wiley has on the feeling of loneliness could not be verified. Group B consists of the same kind of people, but group B did had Wiley as a chat partner. The experiment lasted for two months, and during these months Wiley was put into the homes of people from group B. The AI was approachable by speaking to him and would have conversations with the subjects.

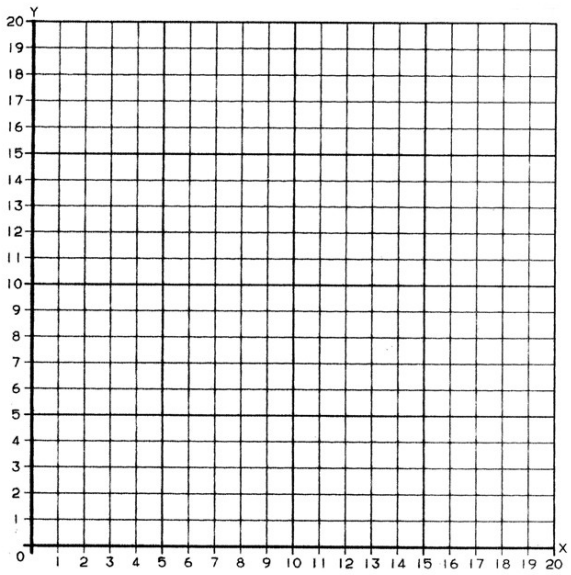

Figure 1: Feeling of loneliness shown per day

Above, in figure 2 it can be seen that already in the first month we can see a slight decrease in loneliness in group B, whereas the line of group A seems to be near constant. This seems to indicate that Wiley does have a positive effect on the loneliness of people. As a comparison, we've shown the results of another AI, called ElliQ[2] down below. Compared to ElliQ, Wiley has 50% more chance of decreasing loneliness.

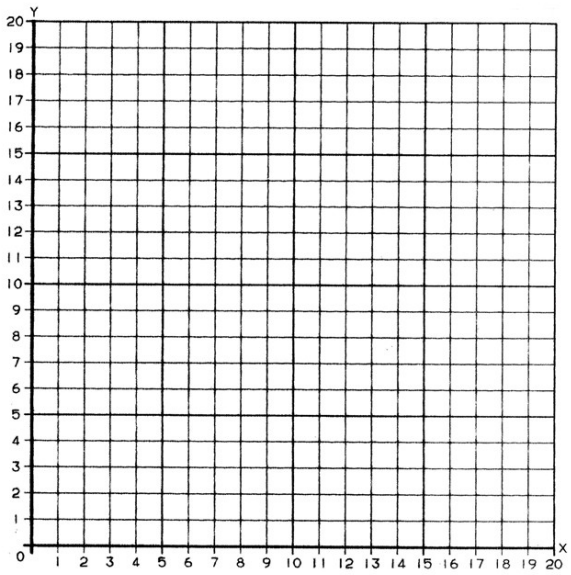

Figure 2: Comparison between Wiley and ElliQ with regards to decreasing loneliness

5.2 Customer service

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6 Conclusion

In this paper an AI was introduced that has proven to have much potential in applications such as chat partners and customer service. Because of its human characteristics, people are more comfortable talking to Wiley than, for instance, ElliQ, and this helps greatly in the interaction between the human and the AI. The code has been made open source in order for other people to create modules for specific areas, this is done to further exploit the use of Wiley. ...

References

[1] Loneliness Matters: A Theoretical and Empirical Review of Consequences and Mechanisms
`https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3874845/`

[2] Intuition Robotics: ElliQ
https://www.intuitionrobotics.com/elliq/