Robosapien - the AI traveler

Towards Future Society 5.0: Modeling, Exploration & Understanding

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Abstract

Today's robots excel at performing pre-programmed tasks. They work well in highly controlled environments with well-defined objects. Artificial Intelligence and Robotics have a common root and a (relatively) long history of interactions and scientific discussions. The birth of Artificial Intelligence and Robotics takes place in the same period ('50), and initially there was no clear distinction between the two disciplines. Dreams like exoskeletons and robots controlled remotely with an interactive humanoid interface are already a reality.

Robosapiens is a robot that allows us to perform tasks such as a Martian surface exploration using a mixed reality.

The core aim of this project is to introduce the capabilities of a robo-researcher with his new capabilities to overcome various obstacles without the help of a user to manage it.

By developing this project, we hope to reduce the lifetime to Society 5.0 and to live in a smarter and easier world.

Tomorrow's robots will create increasingly rich maps of the real world and the objects in it and they will do so in human terms, allowing for a new level of human-robot interaction.

1 Introduction

"Towards Future Society 5.0: Modeling, Exploration & Understanding" is a big project which aims to represent the future technologies at the current moment. Some of these technologies which will build up *Society 5.0* are artificial intelligence, virtual reality and the humanoids/robots.

Artificial intelligence is one of the most popular techniques at the moment because of its efficiency for non-optimization problems.

On the other side we have virtual reality which allows us to create unreal environment. This immersive environment can be similar to the real world or it can be fantastical, creating an experience that is not possible in ordinary physical reality.

2 Implementation

TODO

3 Problems

TODO

4 Techniques

TODO

5 Future development

TODO

6 Acknowledgments

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