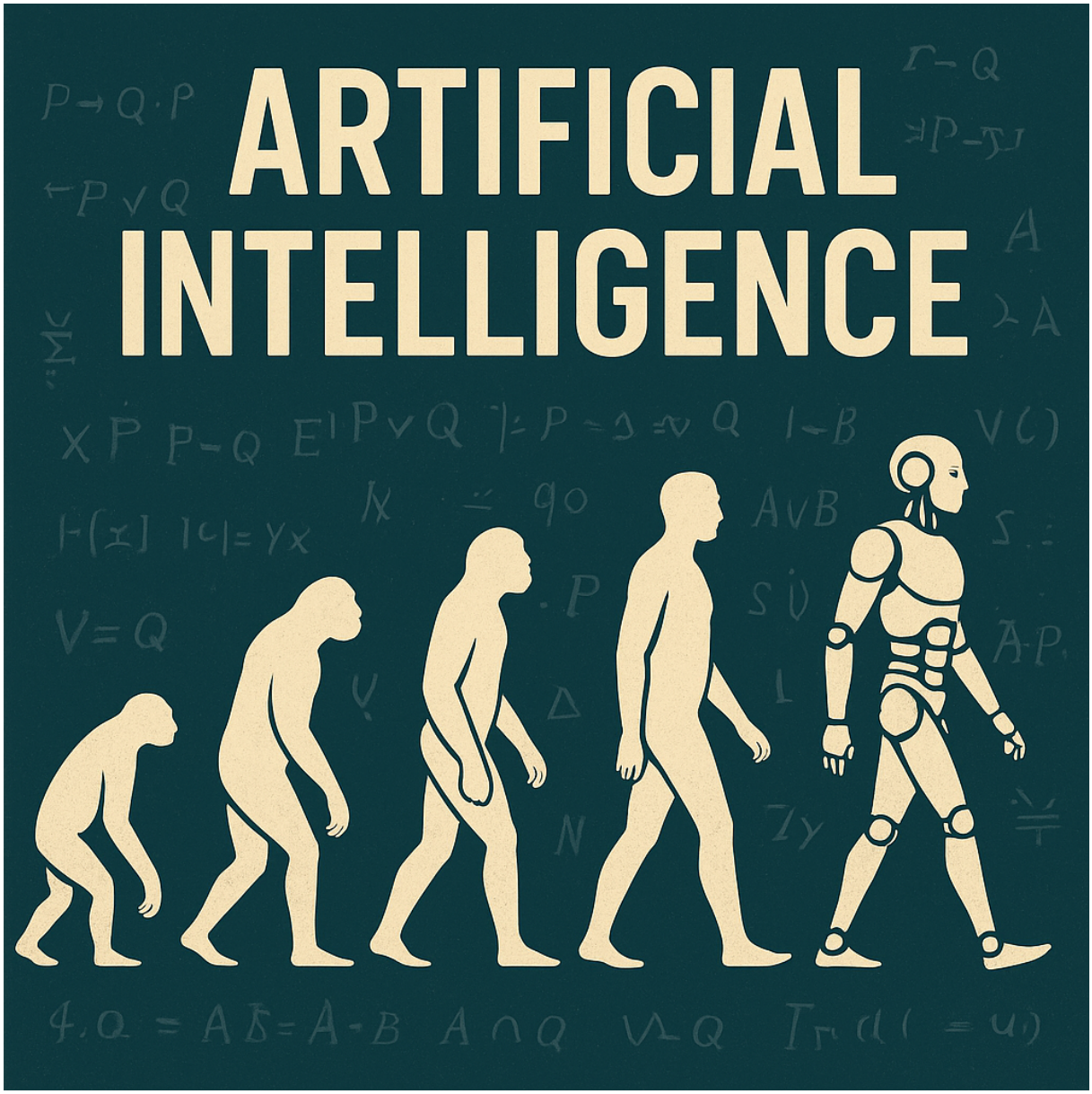
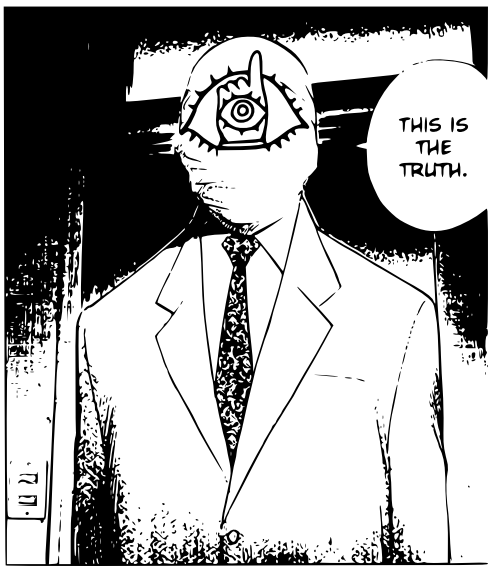
Marco Casu



SAPIENZA
UNIVERSITÀ DI ROMA

Faculty of Information Engineering, Computer Science and Statistics
Department of Computer, Control and Management Engineering
Master's degree in Artificial Intelligence and Robotics

This document summarizes and presents the topics for the Artificial intelligence course for the Master's degree in Artificial Intelligence and Robotics at Sapienza University of Rome. The document is free for any use. If the reader notices any typos, they are kindly requested to report them to the author.



CONTENTS

CHAPTER

1

INTRODUZIONE

In the context of the artificial intelligence, an **agent** is an entity that can

- Perceive the environment through *sensors* (percepts)
- Act upon the environment through *actuators* (actions).

We say that an agent is **rational** if he selects the action that maximize a given *performance measure*, informally, he attempts to do "the right thing". The best case is hypothetical and often unattainable, because the agent usually can't perform all the actions needed, and can't perceive all the information about the environment.