Initiation into AI – 3h workshop

"THERE ARE MANY PEOPLE IN THE KITCHEN, BUT FEW OF THEM ARE COOKING" – FARI PROVERB

CONTEXT

The potential of AI seems endless, yet some simple tasks that humans perform without thinking are still completely out of reach. Despite all the talking, few can really explain what AI is, how it works.

PURPOSE

The objective of this workshop is to **explain what AI is**, and to **provide a framework for understanding** the current and future evolutions, put them in perspective, and to judge the importance of AI-related news.

TARGET AUDIENCE

Broad audience, no specific background knowledge needed. Ideal for people who are curious in AI or interested in applying it, but still struggle to grasp what AI really is.

APPROACH

The workshops consist of a mix of interactive discussion, **games** and **demonstrators** to explore & explain what AI is and **make it very tangible**. We introduce a framework that decomposes AI applications into a conceptual, mathematical and implementation layer.

PRACTICAL DETAILS

Language English
Location AI Experience Centre VUB or AI Experience Centre of BeCentral

This is not an initiation into AI.

LEARNING OUTCOMES

In this introduction you will learn

- what AI is;
- about the role of **algorithms**;
- how a machine can **learn**: from knowledge, examples or interaction;
- why it leads to so many **ethical** issues;
- to develop a creative and critical **mindset** towards AI;
- why it can be **applied** in so many different contexts;
- why AI is **stupid** (but powerful);
- what it means to **translate** a business problem into a computational problem.

PROGRAMME OUTLINE

The programme is divided into three parts:

Part I: What is a chair?
Why real intelligence is still very far off

We will perform a dialectic exercise and wonder what a chair is, and how we could teach it to a machine. A 3-part framework will be introduced to understand AI in practice. You will learn how each AI system can be decomposed into a conceptual-philosophical layer, a mathematical-formalisation layer, and an implementation (programming) layer.

Part II: Role of algorithms

Next, we will dive deeper into the role of algorithms, and show how they allow machines to learn from knowledge, examples and interaction. The difference between rule-based systems, machine learning and reinforcement learning will be explained. A collaborative multi-player game will illustrate many of the challenges in AI.

Part III: Demo-tour: Illustration

Finally, we will show how AI can be put to practical use in demos like the voice-controlled coffee machine, a smart grid, or an autonomous wheelchair. Also, you will take the place of the algorithm in a VR demo to better understand how they work.