



Collaboration with artificial intelligence: aversion and appreciation in an organizational context

NCN OPUS project for 2023-2026



Research on artificial intelligence has been conducted for more than 60 years, but in recent years there has been a significant acceleration in the development of this technology. We have more and more contact with it in our private lives (for example, using household appliances, car navigation, and cell phones) and at work (using various systems to streamline tasks). We see it changing how we perform multiple activities, facilitating them, and creating new challenges. While many people are fascinated by artificial intelligence because of its computing and learning capabilities, others may be concerned that it will take jobs

away from people or control them. Many companies are implementing such solutions to improve work but encounter reluctance among employees to use them to make various decisions.

Our project focuses on how people interact with artificial intelligence in companies, especially in companies' interactions with customers. This is where more and more data are coming in that managers can no longer analyze. So, they are using systems that apply machine learning and deep learning to develop analyses, predictions, and recommendations. These sophisticated systems are good at analyzing massive data sets on customers but struggle to recognize their non-standard behavior. We assume that the best results can be achieved not by humans and artificial intelligence competing but by performing tasks together. We refer to this as a partnership between humans and machine learning. This is a new, poorly recognized issue on which a discussion in global science is beginning. Its results will have significant implications for the development of artificial intelligence research and the work of humans in many future professions.

In our research, we aim to understand what emotions are associated with the fear of such collaboration and how they combine with the awe of artificial intelligence. We also want to determine under what conditions people will be willing to share their knowledge and experience with artificial intelligence so that it learns from them to make better decisions and to what extent they take artificial intelligence's prompts into account when making decisions



in companies. Finally, we are also looking for ways to reduce reluctance to cooperate with artificial intelligence, assuming that if it is more understandable to humans, it will be easier for them to follow its prompts.

These issues occur in developed economies, so our project is international. In it, we are undertaking a study of managers responsible for companies' interactions with customers since they are the ones who already make decisions using artificial intelligence and will do so in large part in the future. First, we plan to distinguish types of managers according to their emotions and behaviors related to working with artificial intelligence. Then we will study in which situations they are willing to share their knowledge with such systems and take their suggestions into account when making marketing decisions. Finally, expecting that a limitation of cooperation is the difficulty of understanding how artificial intelligence works (due to the so-called "black box problem"), we will look for such ways of designing artificial intelligence to reduce its aversion. The research is international; we plan to survey 1,700 managers throughout a project lasting three years.

The project will result in the development of knowledge about how humans manage and cooperate with artificial intelligence, a better understanding of the role played by the analysis, predictions, and recommendations it generates in customer relationship management, a better understanding of the impact of emotions associated with artificial intelligence on the willingness to cooperate with it, and an indication of how to design this technology so that it is acceptable to users as reliable.

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