



## The rise of MADCOMs 10 November 2017

**Speaker:** Matt Webb (Global CTO JWT-Mirum, United Kingdom)

**Moderator:** David Thomas (Independent Media and Communications consultant, Belgium)

Machine-driven communication is already with us, and artificial intelligence-enabled tools such as chatbots will soon be omnipresent in the online information space and social media. Advances in artificial intelligence are expected to radically increase the efficacy of machine-driven communication, allowing our communication to be fully customisable and stimulate greater engagement through data-driven insights. This will certainly make our jobs easier and our methods more efficient. But when chatbots become nearly indistinguishable from a human being, this may have serious implications for how trustworthy or biased our messages are perceived to be. How will artificial intelligence transform the way we communicate?

Matt Webb, global CTO for Mirum, introduced the topic by explaining why artificial intelligences (AIs) are relevant for communications and how AIs have integrated themselves into people's lives. Mr Webb started by looking back over communication technologies and how long it took to reach 90% adoption of internet and smartphones in the Western world. The question is what comes next, taking into consideration the current level of interconnection of devices and networks, referred to as the "digitalisation of everything", and also taking into account the exponential increase in data and information available online.

Mr Webb then offered the audience a simplified explanation of what an artificial intelligence is, and how it functions. The basic idea behind the creation of an AI is to think of it as a neuron system: it attempts to map and reproduce the functioning of the human brain in order to create outputs and inputs on specific topics. In this way, an AI is different from software and computer programmes, as those have expected outputs. On the other hand, AIs are required to complete more or less complex tasks by extrapolating data, and thus can provide unexpected outputs, which Mr Webb referred to as pattern recognition and machine learning.

Mr Webb then explained that the new objective in terms of AI development is the optimisation of the training process, through the use of more and more complex sets of data. Nevertheless, he argued that the most significant progress made in machine learning since its beginnings is the computation power with which data are processed. In other words, how much data can be analysed by a specific machine set to reflect upon a specific task, such as street traffic management or face recognition.

Mr Webb further defined what MADCOMs are, and how useful they can be. MADCOMs are machine-driven communication tools, such as chatbots. By following a predefined decision tree, these bots are attempting to reproduce human interactions and giving guided answers to specific questions. Mr Webb took the example of the KLM bot, able to do a flight reservation and plan a complete trip via a simplified interface. Moreover, if unknown



questions are asked, by going back to its decision tree a bot would be able to understand the intent and to give an adequate answer. For instance, for the first time the Washington Post recently authorised a bot to write sports articles.

Nevertheless, Mr Webb pointed out that these bots are still programmed by humans, which can introduce a sense of falseness when they learn from people. In this case, Mr Webb took the example of the Twitter bot TAY (which stands for "Thinking About You"), which was released by the Microsoft Corporation in March 2016 and was able to learn from its interaction with users. The bot later caused controversy when it began to post xenophobic and offensive tweets through its Twitter account, and had to be shut down after only 16 hours. Consequently, as well as developing their capacities, Mr Webb argued that a fundamental question when dealing with MADCOMs is how we interact with them and influence their learning process.

Finally, Mr Webb addressed the concept of hyper-personalisation of bots, which can result in bots providing very specific and tailored content with regard to a precise question. So a bot can be programmed to take into account circumstances a human being would not necessarily think of in the first place.

The moderator, David Thomas, then opened the floor, and an initial set of questions was asked about how people could connect themselves to AIs, and the biggest benefits of such technologies in the future. Mr Webb argued here that most people are already connected to bots when they perform daily tasks, such as using the voice control of their smartphone.

Finally, another set of questions was asked about how to address job losses due to the improvement of technologies. Mr Webb argued that there is a vast debate about whether technology is going to create more jobs or destroy them. In that case, AIs should not be looked at as a substitute for work, but as a technology tool.