My 6 predictions for Artificial Intelligence in 2019

Mark Oost, Global CTO Analytics & AI Services, Sogeti shares with us his top 6 predictions for AI in 2019.

Mark has over 10 years of experience within AI and Analytics. Before joining the group Mark was responsible for AI within Sogeti the Netherlands where he was responsible for the development of the team and business as well as the AI Strategy.

He has worked with clients from multiple markets internationally on technologies around AI, Deep Learning and Machine Learning.

1. Consumer power and regulation will prompt a surge in 'explainable AI'

When a mortgage application is accepted or rejected, the decision is often based on a whole range of factors that an automated AI is configured to measure. Many organizations have adopted a 'black box' neural network model, for example using IBM's Watson, that safeguards the data, yet also prevents them providing a reason for the decision that's been made – something legislation now requires. This is leading to 'explainable AI'. It's a field of research/data analytics that is becoming mainstream as the use of AI explodes and data proliferates.

2. Edge computing will be everywhere – consumers are going bionic

If you want AI to give you extreme speed, such as instant face identification, pulling down data from a centralized cloud isn't going to be fast enough. Algorithms are being moved to 'the edge' – or, in other words, closer to the sensors that are providing the data.

3. Greater use of GPU computing

GPUs – or Graphic Processing Units – are architecturally suitable for calculating neural networks and deep learning. While still niche at present, GPUs will move more mainstream in the coming year. For example, self-driving cars are fitted with GPUs and it is essential that these vehicles can instantly visualize their surroundings and act appropriately on what they see.

4. Increased usage of TPU computing

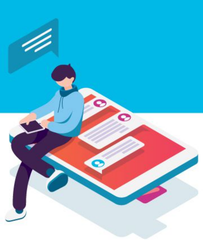
Alongside greater use of GPUs, I also predict more Tensor Processing Unit (TPU) computing, which was developed by Google to accelerate neural network machine learning. If you've used Google Street View or Search, then you've used its TPU.

5. Automated machine learning will fill a skills gap

We will see more Automated Machine Learning (AML) frameworks being used to develop machine learning algorithms. Why? To combat the huge shortage of AI experts and data scientists needed to steer the increasing uptake of AI machine learning and deep learning. I predict more companies stepping into this space to fill the skills gap with their automation technology and join the likes of IBM's Watson and Google's TPU.

6. The use of Capsule Networks will increase

The use of new types of neural networks such as Capsule Networks will increase. Capsule Networks are essentially machine learning systems that give better performance, notably in the area of 'vision' and 'feature recognition'. Current neural networks aren't capable of processing the depth of nuances in an image – say a person's face or a changing road traffic situation – should the components of the image change. In 2019 we will see a big acceleration in the use of Capsule Networks.



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Contact me to find out how Sogeti's approach to Artificial Intelligence can accelerate your adoption of new, game-changing technologies.