

Microsoft helps Mackmyra to create the world's first AI-generated whisky

Microsoft, together with Fourkind, a Finnish technology consultancy that specializes in strategic spearhead projects with expertise in artificial intelligence, and Mackmyra, an award-winning Swedish whisky distillery, are creating the world's first whisky developed with artificial intelligence (AI). This is the first time that a complex consumer product recipe has been created with machine learning.

The possibilities for different whiskies are endless – Master Blenders, who are responsible for the whisky flavor and recipe development, can spend their whole lives tasting and experimenting to create the best flavors possible. This is where the distillery Mackmyra, founded in 1999, wants AI to augment the process.

"We always strive to challenge the traditions in the very traditional whisky trade and that's something we really do now when we develop a whisky with the help of AI. We see AI as a part of our digital development, it is really exciting to let AI be a complement to the craft of producing a high-quality whisky. For me as a Master Blender it is a great achievement to be able to say that I'm now also a mentor for the first ever created AI whisky in the world" says Angela D'Orazio from Mackmyra.

This is the first time that AI has been used to augment and automate the most time-consuming process of whisky creation. The distillery's machine learning models, powered by Microsoft's Azure cloud platform and AI cognitive services, are fed with Mackmyra's existing recipes (including those for award-winning blends), sales data, and customer preferences. With this dataset the AI can generate more than 70 million recipes that it predicts will be popular and of the highest quality.

"This AI-generation can have an impact in different industries globally," Microsoft spokesperson says. "I envision AI systems generating recipes for sweets, perfumes, beverages, and maybe even sneaker designs. Many of these have already been attempted, but large-scale adoption is still lagging behind. We are showing the way forward, and these new AI solutions can be used to generate products that retain the spirit, look and feel of the brands behind them, while at the same time being new and unique."

Utilizing AI is not only faster than a person carrying out the process manually, but thanks to the algorithm's ability to sift through and calculate a vast amount of data, new and innovative combinations that would otherwise never have been considered can be found. However, the AI solution is not designed to replace a Master Blender. The idea is for the whisky to be generated by AI and still be curated by a person.

Says Jarno Kartela, Machine Learning Partner at Fourkind: "Algorithms don't have senses, so we need another take on how to understand something so complex as whisky. Although lacking human expertise, we can teach machines to understand what elements previous recipes and products are made of and how they are perceived and ranked by customers and

experts. With this as a raw data asset, we can leverage a combination of explorative algorithms to generate endless new recipes and products and then use a set of discriminative algorithms to understand which of them might be great, repeating until better recipes are not found. This requires a lot from the computation side, as we need millions of iterations while keeping track of what worked and what did not before reaching a solid guess of a good new whisky."

Mackmyra's AI-generated whisky will be available from Autumn 2019.

For further information:
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Mackmyra is a Nordic whisky making pioneer that kickstarted the Swedish whisky journey in 1999. Its whisky is created with Swedish raw materials, without additives, and using environmentally-friendly distillation technology. In addition to its award-winning whiskys, craft distilled gin has also been available since 2017 via another distillery, Mackmyra Lab Distillery.

Fourkind is a consulting agency mixing management consulting and the implementation capabilities of creative technology companies. The company has grown to 30 consultants in a little over a year and has been profitable since its second month. Fourkind currently has teams in Helsinki and Amsterdam, and multiple high-profile clients at both sites.

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