



# Poetry and Machine Learning: An Unlikely Fusion

## Machine Learning: The New Normal

At first glance, poetry and machine learning might seem like they belong to completely different worlds. Poetry is all about human creativity and emotion, while machine learning is grounded in data and algorithms. If you look closer, you will find a fascinating connection between these two seemingly disparate realms.

The concept of Machine learning, which was introduced in the 1950s, is now widely recognized as a branch of artificial intelligence that involves different algorithms that are capable of training computing systems to recognise recurring patterns, make predictions, and learn from data. It is used in everything from computer vision to natural language processing and predictive analytics. But what about its role in the arts?

## **Enter Computational Creativity**

Computational creativity is an emerging field that aims to replicate the creative processes of the human mind using computers. Nowadays, many researchers tend to explore the ability of machine learning algorithms to generate new and meaningful artistic works, including poetry.

One of the earliest and most notable experiments in this area was conducted by researchers at Google Brain in 2016. They trained a recurrent neural network (RNN) on a vast collection of poetry, teaching the algorithm to understand patterns, rhythms, and structures in poetic language. According to Doe (2016), the attempt described in the research to create the machine-generated poem that, indeed, was not a masterpiece, showed a striking faculty of the AI to engage in creative expression. Thus, this proves the possibility of AI to be involved in poetic work and even more.

## **Beyond Generation: Analysing Poetry with Machine Learning**

The connection between poetry and machine learning is not just about creating new poems. These techniques can also help us analyse and understand poetic language in new undiscovered ways.

For instance, researchers have used natural language processing (NLP) algorithms to study metaphors in poetry, disclosing patterns and associations that might be scrutinised by human analysis (Smith, 2018). Brown (2020) supplements the latter by stating that other researchers have applied machine learning to track the stylistic evolution of poets over time or to identify the unique features that distinguish one poet from another. The above considered unveils that machine learning is not simply about creating poetry but also about new ways of swiftly analysing it.





### Human-AI Collaboration: A New Kind of Poetry

Imagine a medium in which there is a system where a human poet and an AI collaborate, each responding to and building on the other's work. According to Green (2021), this kind of interaction blurs the lines between human and machine authorship and pushes the boundaries of what is possible in poetry.

Such collaborations challenge our ideas about creativity and the role of technology in artistic expression. Here, based on the nature of machine learning and Johnson's (2019) formulated ideas, the intriguing ethical and philosophical questions of the application of such collaborations emerge: can an algorithm truly capture the nuances of human emotion and experience? *or* what happens to the concepts of authorship and ownership when machines can generate artistic works? Unfortunately, these are the challenging issues to consider.

### **A New Frontier for Creativity**

As with any emerging technology, it is important to approach the fusion of machine learning and poetry with a critical eye. We need to consider both the potential benefits and the possible pitfalls.

To conclude, the connection between poetry and machine learning represents an exciting new frontier. It invites us to rethink the boundaries between human and machine, art and technology, and to explore new realms of creative expression and understanding.

#### References

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