# **Machine Intelligence**

## Nripesh Trivedi

Department of Mathematical Sciences, Indian Institute of Technology, Varanasi

### Abstract

Decision making is the most important part in everyday life. We make numerous decisions throughout the day from small to big decisions. These decisions involve choosing which food to eat to choosing in which bank to invest money. Another word for decision making is making choices. In [1], artificial intelligence was demonstrated as **solutions** to solve problems. At a more general level, we need to make decisions in order solve problems. This paper is about that. It illustrates a simple concept to solve problems.

### Machine Intelligence

**Probability** is the way to make choices when presented with multiple options. Probability could be used to go with most feasible solution in short or long range and solve problems according to the solution that is most probable. There are many examples of this in machine learning. In supervised learning [2], instead of learning the parameters for predicting the output, we could simply compute the probability of the given set and accordingly compute the output from that.

Finally, **probability** could be used to make choices or make decisions easily based on probability and thus solve problems. Example of probability in solving problems could be found in Google's page ranking algorithm [3]. The algorithm outputs the likelihood of a page being visited by using **probability**.

### Conclusion

In this paper, it was shown that we could make intelligent decisions by using probability. Some examples were also given to show how we could use probability to make decisions. Finally, to conclude, it is our choices that differentiate the best solutions from the average solutions. Therefore, probability should be used to make intelligent decisions and intelligent systems to solve problems.

### References

- 1. Artificial Intelligence. (2023). International Journal of Scientific Research and Management (IJSRM), 11(09), 914-914. <u>https://doi.org/10.18535/ijsrm/v11i09.ec01</u>
- 2. Trivedi, N. Prediction in Machine Learning.
- 3. Source https://web.stanford.edu/class/cs54n/handouts/24-GooglePageRankAlgorithm.pdf