**K Nearest Neighbors | Intuitive explained | Machine Learning Basics**

**Format: Video**
**Source: https://www.youtube.com/watch?v=0p0o5cmgLdEK**

**Overview**

Message

The video delivers a concise explanation of a KNN model, giving viewers an overview of its operations, its practical applications, and a code example for implementation.
The content of this communication is highly scientific.

Objective

After watching this video, the viewer should have a basic understanding of the KNN model and its functions.

Target Audience

Given the title contains 'Machine Learning Basics', I have assumed that the content targets an academic audience who is inexperienced in artificial intelligence (AI) and has the desire to understand basic concepts, most commonly students.

Medium

A video is an appropriate medium for the target audience as it is able to deliver the content using a combination of text, imagery and video to a younger group who likely prefers a fast pace and visually entertaining delivery of content.

**Analysis**

Images & Animation

Strong usage of images and animations makes the content more clear by supporting the delivery of the concepts being discussed.
For example, when demonstrating how to calculate distance, the creator animates lines over the data placement to clarify how measurement is performed.
I felt that this reduced the likelihood of misinterpretation and made complex concepts easier to comprehend, which is beneficial for beginners of AI.
Additionally, this aligns with the visual aid preferences of audiences who prefer a video medium aiding engagement.

Text

Utilising minimal text and its font style to support the fast pace of the audio allows for the content that is typically lengthy to be condense and engaging for the audience.
The video breaks the process of the KNN model into simple steps, which the audience is able to consume through bold headers that clarify the step being discussed and simple text which supports the context of the step.
I felt that by adding textual information to the discussion, the video is able to effectively communicate complex ideas with simpler explanations at a faster pace.
This style complements the younger demographic of the target audience as this group is likely to prefer a shorter and more engaging video that addresses key ideas.

Jargon
Although the video is concise, it has sacrificed clarity by depending on the frequent use of technical language (jargon).
I observed this occurring when terms such as ‘over/under fitting’, ‘learning curve’, and ‘cross-validation’ were used without further explanation when discussing the importance of selecting the K-value.
Given that the target audience of the video is unlikely to be familiar with these terms, this reduces the likelihood of the viewer understanding the concept being discussed, negatively affecting the video’s objective of explaining the KNN model.

**Summary**
Overall, I felt that the communication had selected an appropriate medium and successfully met its objective of educating its target audience on the KNN model.
Cleverly it used images, animation and text to enhance its engagement with its target audience to deliver the context of the subject in an effective and clear manner.
To strengthen the video’s communication, the creator may use examples to clarify the meaning of the technical terms, provide definitions using on screen text or substitute these terms for simpler words.

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**Even artificial intelligence can acquire biases against race and gender**

**Format: Online News Article**
**Source:**
**https://www.science.org/content/article/even-artificial-intelligence-can-acquire-biases-against-race-and-gender**

**Overview**
Message
The Article discusses how like humans, artificial intelligence (AI) can develop bias when modelled upon unfiltered data contaminated by racial and gender attitudes. The content of this communication is moderately scientific.

Objective
After reading the article, the reader should have a greater understanding of AI vulnerability which supports a healthy awareness of potential bias in AI output.

Target Audience
The tone of the website the article is hosted on, ‘Science’, suggests that readers have an interest in science communication and likely have been exposed to basic technological concepts.
From the informal style of the article, I have assumed that the communication targets a non-academic audience seeking to improve their general understanding of AI or technology and ethics.

Medium
I believe a written article is an appropriate way to communicate information to the target audience as it allows for a more detailed discussion of complex subjects in a non-academic

setting. Given the multiple studies discussed, the delivery in an alternative medium would be weaker than a written article as it could confuse the audience.

**Analysis**

Simple Language

The article uses simple language to address complex ideas increasing the accessibility to AI concepts by reducing barriers of domain terminology.

For example, the author explains the technical concept of embedding by using simple language ‘a computer's definition of a word is based on the contexts in which the word usually appears'.

Given that the audience is unlikely to have a mastery of the field, I felt that explaining these concepts in a digestible manner allowed for better understanding of the content as it does not limit the reader's comprehension based on their expertise in AI.

Therefore, in this aspect, I felt that this communication was more informative than the KNN video previously discussed, which relied on the audience's knowledge of technical jargon.

Real World Example

Using real-world examples when discussing how biases occur allows for the content of the article to be more impactful.

I felt that an effective use of this was when discussing résumé prioritisation of male-dominated fields, men’s résumés would be ranked higher due to higher context association with the role.

By using commonly observed biases in society and demonstrating how they can be reflected in AI, readers are able to relate the article to their reality and understand how it could affect them.

Therefore, this challenges readers to engage more deeply with the content of the article and inspires further investigation into AI.

Unbiased

Instead of simply stating the capacity of AI to be biassed, the article explores solutions currently being implemented to mitigate these flaws. This is an effective way of communicating the whole context of the subject, reducing misinformation.

For example, the article suggests a simple solution to gender bias in résumé prioritisation is adding gender quotas.

By communicating both the weakness and solutions surrounding AI, I felt that the article promoted interest rather than fear which can disengage the audience.

This supports the audience's future engagement with technological communications as readers are more likely to associate other AI orientated scientific communication with positive connotations.

Verbose

The article is written in an informal tone to make it easier to consume by readers. However, at times this has caused the unnecessary lengthening of the text due to repetition, unnecessary references and meaningless quotes.

For example, adding quotes such as ‘It's kind of cool that these algorithms discovered these’ did not benefit the article's objective or further engage the audience.

Therefore, unnecessary wordiness within the communication should be avoided as it weakens the delivery of key ideas and may dissuade readers to consistently engage with the article.
In this aspect, I felt that the KNN video had a more engaging delivery as the density of this article decreased engagement and interest in the content it discussed.

**Summary**
Overall, I felt that the communication had successfully met its objective of informing its target audience on potential biases which can occur within AI through an appropriate medium.
To do this, the article uses a combination of simple language, examples and active communication to increase comprehension, promote engagement and inspire interest.
To improve its delivery, the author should select key points and include only references and quotes that are necessary to improve the communication of the article.

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## Proposal

**Topic**
Presently, artificial intelligence (AI) is an increasingly popular technology with a broad range of applications in various industries. For my first project, I will investigate "Ethical considerations in the creation and deployment of artificial intelligence".

**Angle**
This article will concentrate on the ethical repercussions of AI and how programmers can help ensure that their products align with ethical principles. I will discuss the possible effects of using AI and the need to establish guidelines to prevent undesirable outcomes. Furthermore, I will also emphasise the significance of diversity and inclusivity in AI development to avoid perpetuating biases and discrimination.

**Supporting Evidence**
I intend to conduct an interview with lead AI engineer Timothy Mcdermott to gain their professional viewpoints and gain a better understanding of the ethical issues facing the AI domain. I'll also use academic publications and studies to reinforce my arguments and findings.

**Outlet**
The outlet I propose for my article is the Verge, an established technology news website. Verge's audience is tech-savvy and knowledgeable, and they boast an excellent reputation for covering cutting-edge technological issues. The tone and style of my article will be tailored to The Verge's audience and will explain complex ideas in non-technical terms to be consistent with present offerings.

**Target Audience**
The target audience for my article is those who may be interested in the relationship between ethics and technology. The article will appeal to readers who want to improve their understanding of the societal implications of AI and expand their knowledge of how technology can be developed and deployed ethically.