



ARTIFICIAL INTELLIGENCE SCSJ 3553

Progress 1 – Knowledge Representation

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Knowledge Representation

I) IF Upload_File = active AND Content = present AND Reference_Link = present, THEN process = ON

When the file is uploaded, it is divided into content and reference link and then the process of calculating the plagiarism will start.

$\text{active(Upload_File)} \wedge \text{present(Content)} \wedge \text{present(Reference_Link)} \rightarrow \text{on(process)}$

Upload_File	Content	Reference_Link	Upload_File^Content	Upload_File^Content^Reference_Link → process
T	T	T	T	T
T	T	F	T	T
T	F	T	T	T
T	F	F	F	T
F	T	T	F	T
F	T	F	F	T
F	F	T	F	T
F	F	F	F	T

II) IF plagiarism_scanner = active, THEN plagiarism_percentage = SET

When the plagiarism scanner is activated, it will scan the content and match against the reference link to calculate the percentage of plagiarism.

active(plagiarism_scanner) → set(plagiarism_percentage)

plagiarism_scanner	plagiarism_percentage	Plagiarism_scanner → plagiarism_percentage
T	T	T
T	F	F
F	T	T
F	F	T

III) IF content = present AND reference_link = present, THEN calculate_similarity = START

When content and reference link are there, it scan and calculate the similarity of the original content against the reference.

present(Content) ^ present(Reference_link) → start(calculate_similarity)

Content	Reference_link	Calculate_similarity	Content ^ Reference_link → calculate_similarity
T	T	T	T
T	T	F	F
T	F	T	T
T	F	F	T
F	T	T	T
F	T	F	T
F	F	T	T
F	F	F	T

IV) IF **set_percentage** = TRUE, THEN **detector** = RED

When the percentage of plagiarism in the content matched with **set_percentage**, the indicator will turn red.

$\text{true}(\text{set_percentage}) \rightarrow \text{red}(\text{indicator})$

set_percentage	detector	set_percentage \rightarrow detector
T	T	T
T	F	F
F	T	T
F	F	T

V) IF **set_percentage** = TRUE, THEN **detector** = GREEN

When the percentage of plagiarism in the content does not matched with set_percentage, the indicator will turn green.

$\text{true}(\text{set_percentage}) \rightarrow \text{red}(\text{indicator})$

set_percentage	detector	set_percentage \rightarrow detector
T	T	T
T	F	F
F	T	T
F	F	T



References

- <https://learn.g2.com/ai-for-plagiarism>
- <https://towardsdatascience.com/build-a-plagiarism-checker-using-machine-learning-6538110ce162>