# A Wikipedia-based Multilingual Retrieval Model

## Introducing Cross-language Explicit Semantic Analysis (CL-ESA)

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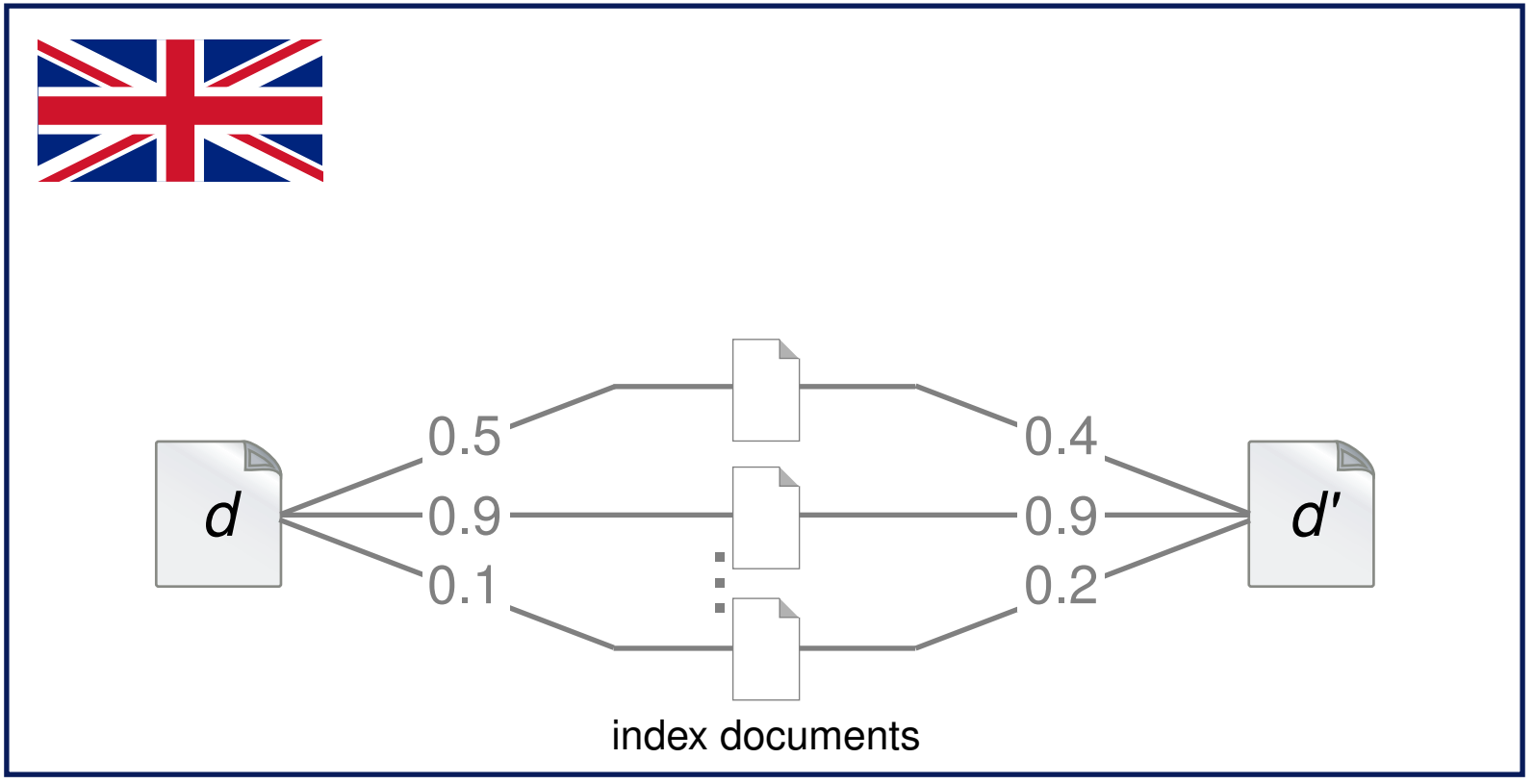


Explicit Semantic Analysis (ESA) [Gabrilovich:2006].

A document is represented by its similarities to so-called index documents.

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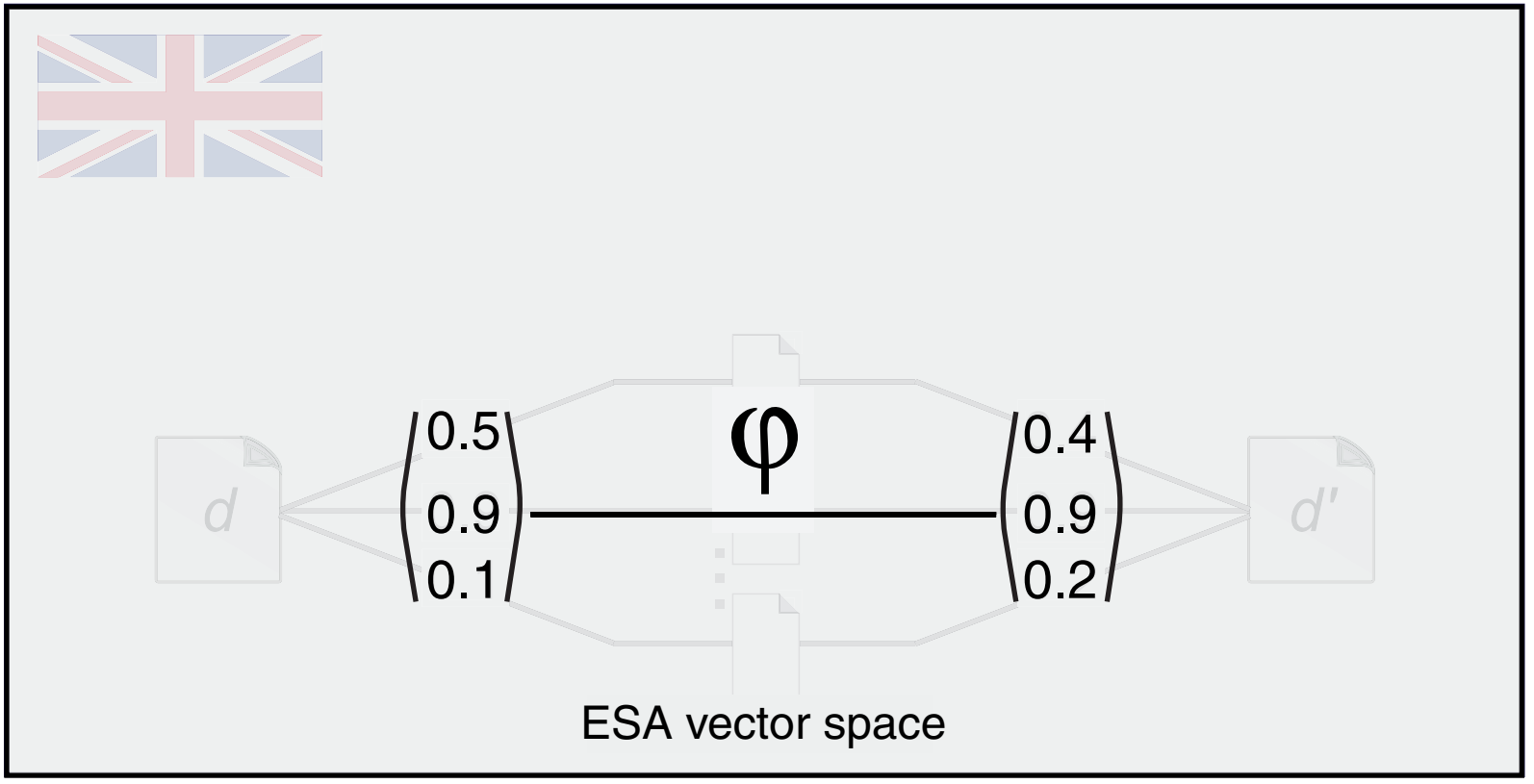


In the ESA vector space a similarity is measured using the cosine similarity.

ESA increases the retrieval performance by 20% compared to the VSM.

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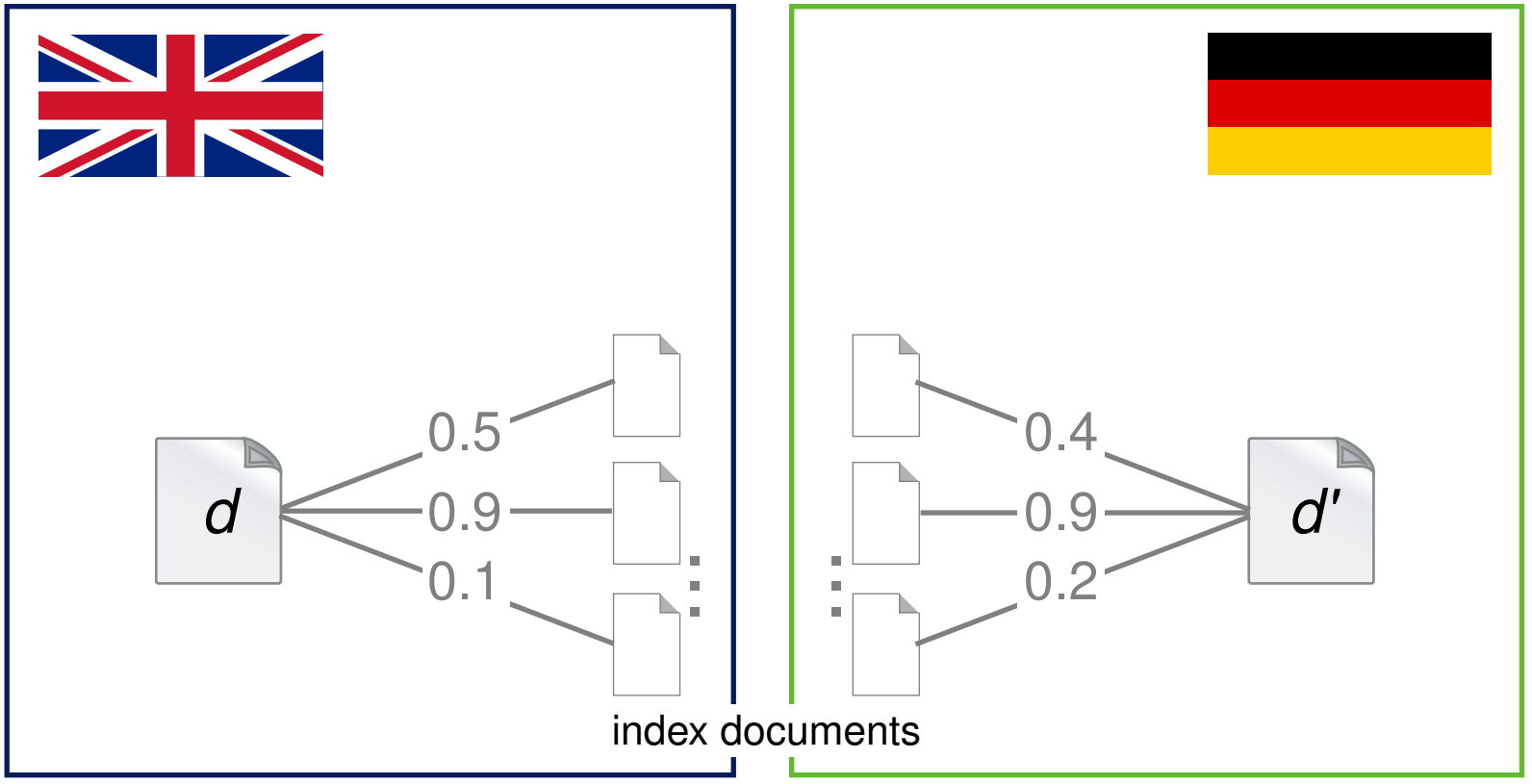


The ESA model can be applied independently in any language.

Is it possible to compare documents from different languages?

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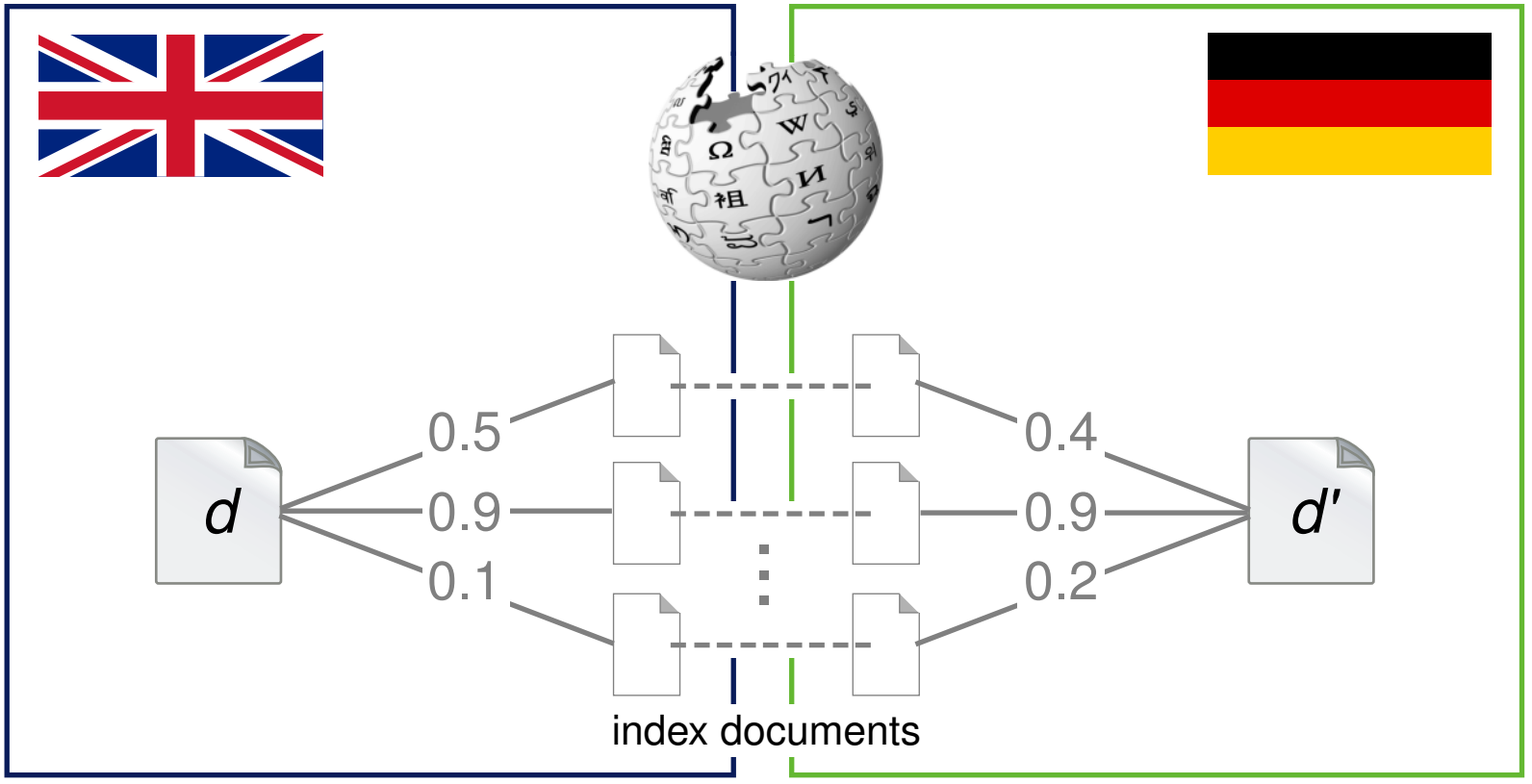


With CL-ESA index documents are chosen from a parallel corpus.

> 100 000 index documents for English and German are available in Wikipedia.

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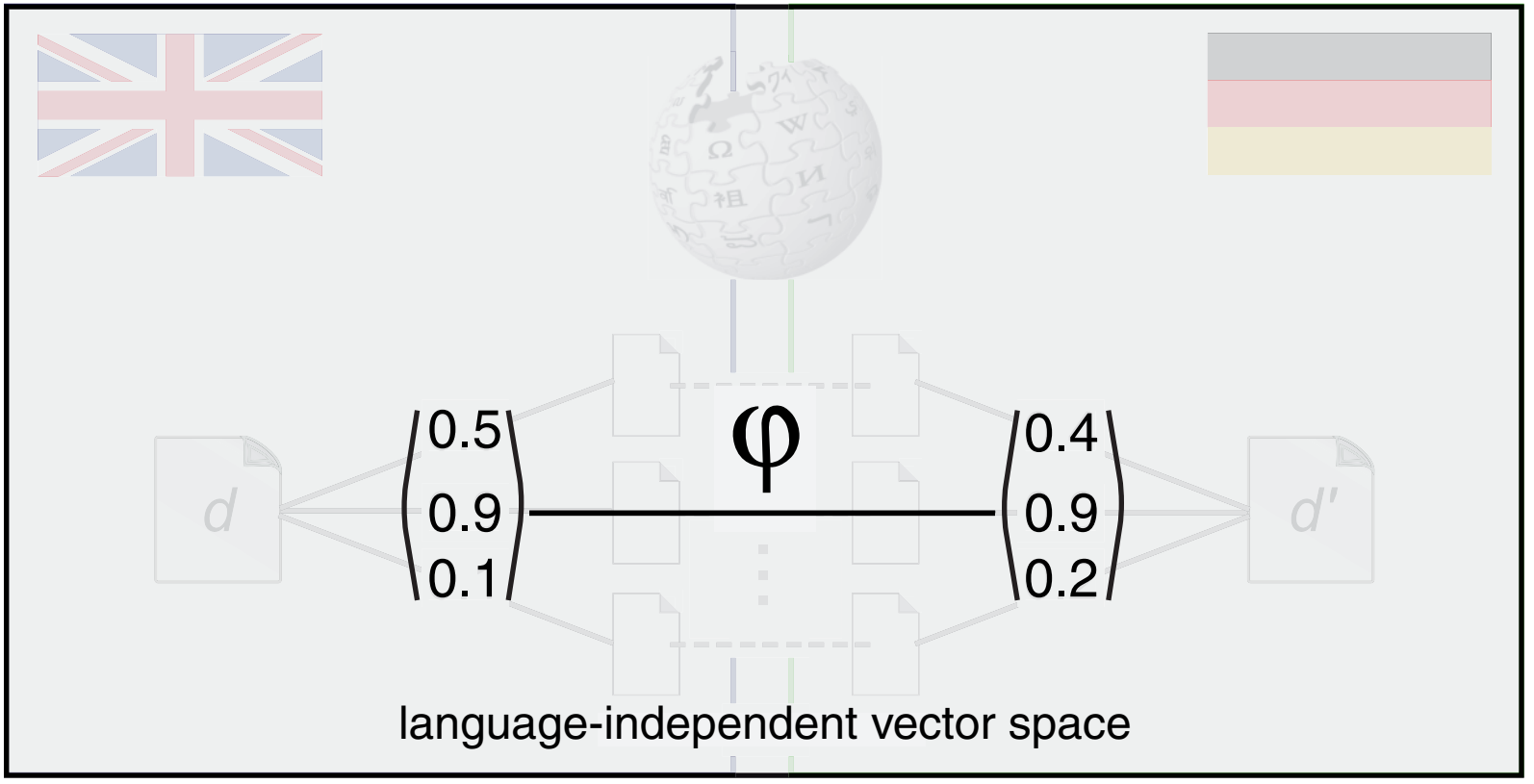

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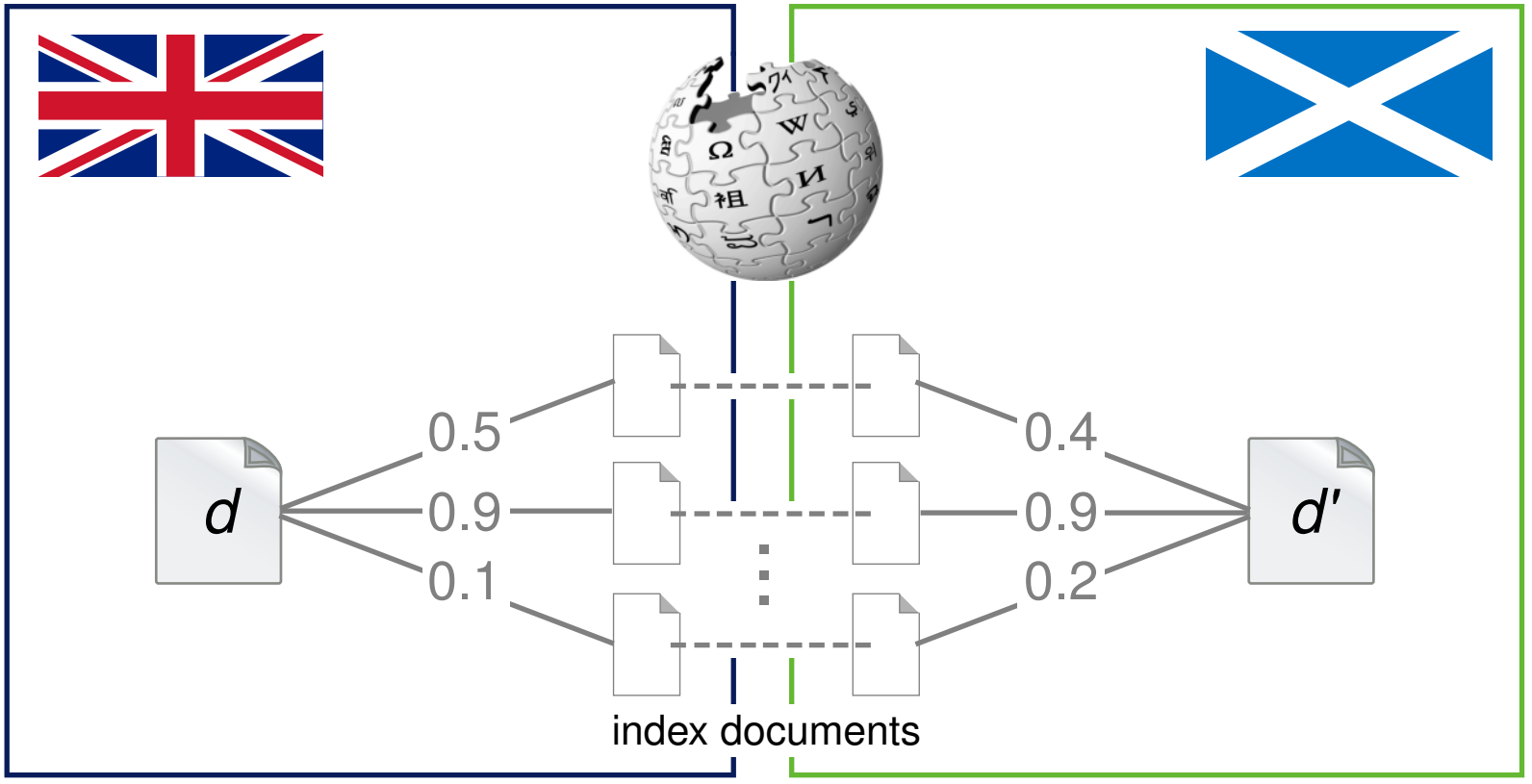


Wikipedia has more than 250 languages.

Reasonable number of index documents for good performance: 1 000 or more.