Dear scientist,

We ask your help in analyzing the European neutron science community.

The European Neutron Scattering Association

& your national ENSA delegate
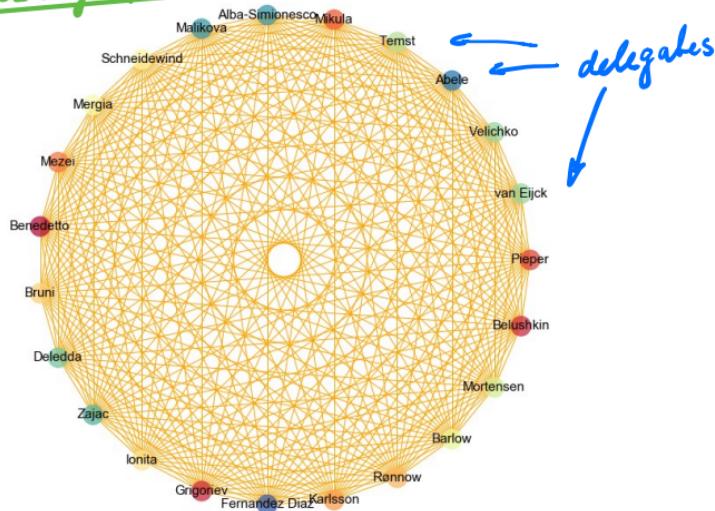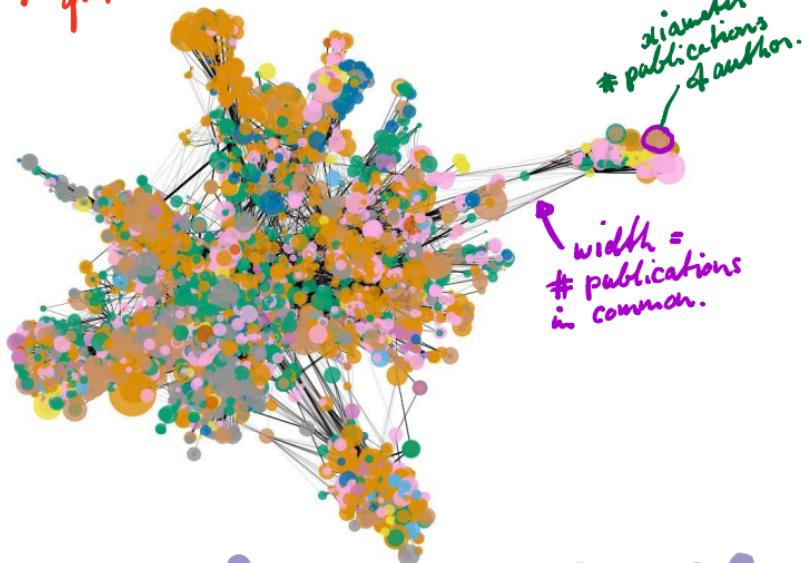
TUDelft

How to build the network of scientists
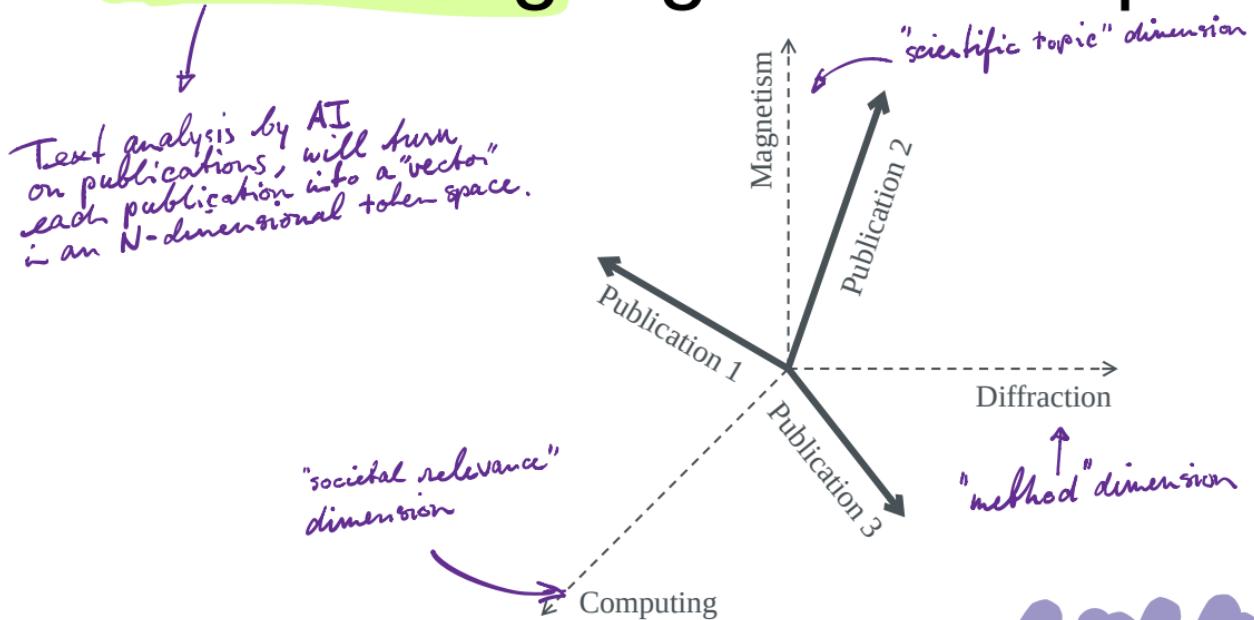
Applying the Natural Language (NLP) Processing algorithm on publications

Text analysis by AI on publications, will turn each publication into a "vector" in an N-dimensional token space.

"scientific topic" dimension

Magnetism

Publication 2

Publication 1

Diffraction

Publication 3

"method" dimension

"societal relevance" dimension

Computing

brightness[2]

ENSA
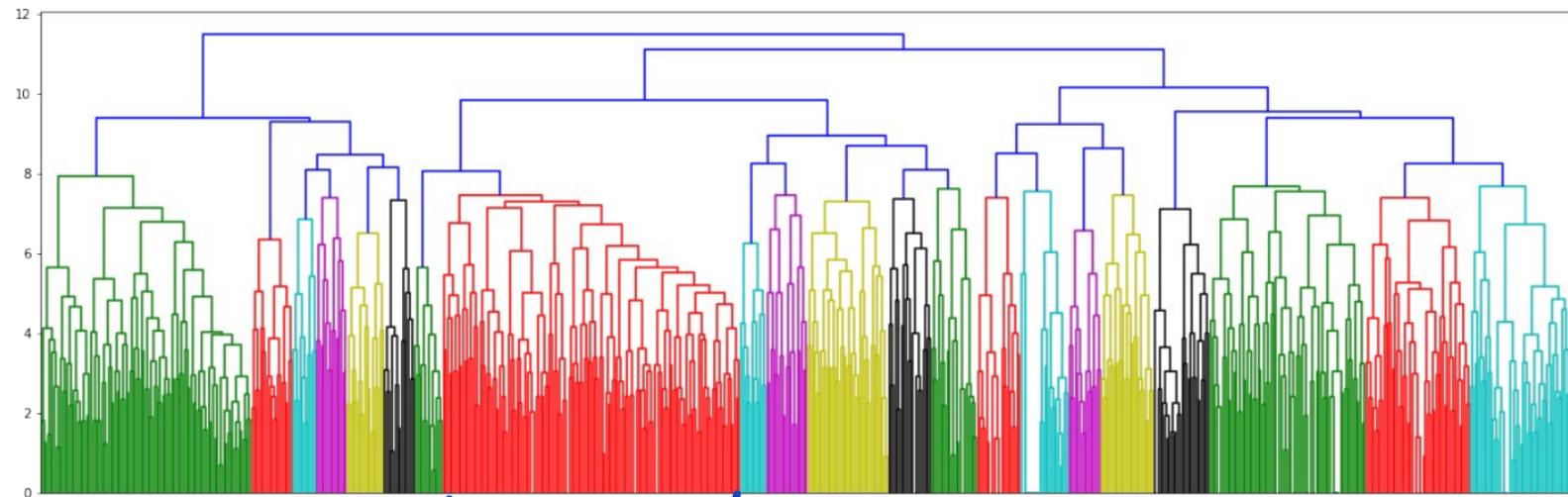
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"deep learning" text analysis can add "why" and "how" to the network analysis.

# Subsequent clustering of publications through their similarity in NLP
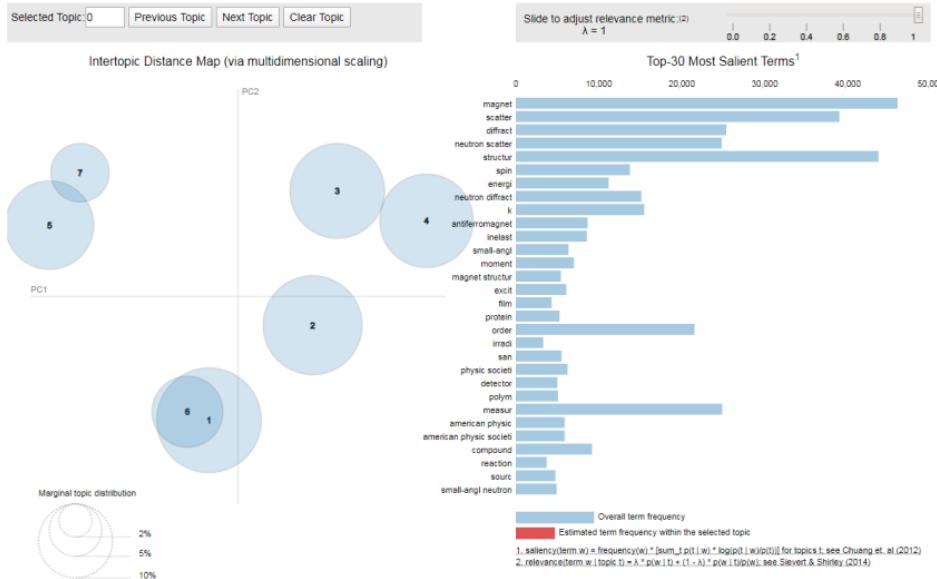
"vectors" pointing in the same direction: classification &
some ones work in
"similarity"

brightness²

ENSA

T̃U Delft

Deep learning of a large set of publications enables to relate the network with topics (scientific, societal, methodological).

We ask for your help:

uploading

"feed"

- By sending us your published work, you help us to train the algorithm in interpreting neutron science in terms of scientific and societal relevance.
- Network analysis of publication meta-data tells us "who, where and when".
- AI text interpretation tells us "why and how".
- Outcome of the analysis will serve the community as a whole, users, facilities and ENSA delegates.

- Your input on future needs for the neutron community will be requested through a survey. *(separate)*
- The AI analysis will ensure we ask only the relevant questions in a "personalized survey".

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