
Automating Requirements Traceability: Two Decades of Learning from KDD

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Learn from Knowledge Discovery in Data (KDD)

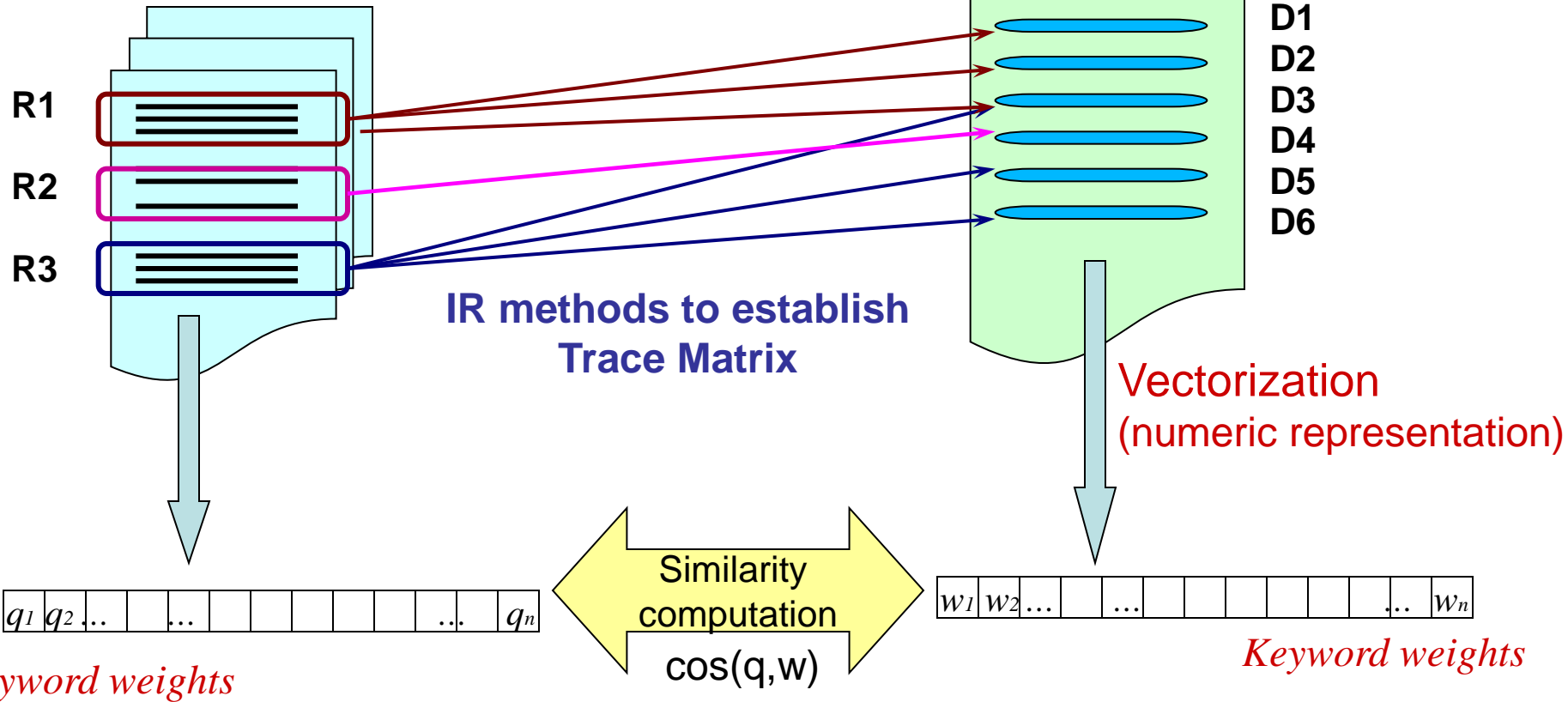
Use **Machine Learning/Information Retrieval Techniques**
developed by **researchers in KDD**
for **automating requirements tracing**

(Heh!)

Requirements Tracing is an Information Retrieval Problem

Requirements = text queries

Design elements = text documents



Measures: **Precision** = percentage of retrieved links that are correct
Recall = percentage of correct links that are retrieved

Lessons Learned

1. Almost 20 years of attempts (high recall, low precision)

Tracing = Applied KDD

2. Adoption of KDD's procedures and measures

3. Recall over Precision

4. Nobody believes our ground truth

Need standard procedures

5. We learned to build tools

but we need to integrate

6. Automation is not enough