# ROI-AV

**Research Output & Impact – Analyzed and Visualized**

# From project to local competences

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Maj 2019

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➢ **ROI-AV**
    ➢ **Scope and homepage**

➢ **WP2 –**
    ➢ **Strategy og results**

➢ **Local experiences**
    ➢ **Introducing VOSviewer to librarians and researchers**

➢ **The Future**
    ➢ **Opera and vizualisations**

# ROI-AV Research Output & Impact – Analyzed and Visualized

- ➢ **Strategic – deliver information for management**
- ➢ **Practical – able to support complex products**
- ➢ **Competence development for colleges**
- ➢ **Facilitate knowledge exchange**

- ➢ **ROI-AV – SDU libguides**

# ROI-AV - WP2 Focus

➢ **Analysis and visualization tools**
  The project is currently active in the part that deals with
  competency development of the participants, and works in smaller
  groups with tools like VOSviewer, Science of Science (Sci2) Tool,
  Tableau, Excel, Gephi, R, NVivo, OpenRefine and Google Data
  Studio.

➢ **We developed that !!**

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# ROI-AV - WP2 Strategy

➢ **Developing our competencies is best done by teaching**
  ➢ **Introductions & workshops by group members**

➢ **Outside speakers (and Advisory board)**

➢ **Every half year we held a Brainstorm and planned ahead**
  ➢ **Products, software, tools**

➢ **Very positive experience**

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# VOSviewer

➢ Previous experience from AIDA workshop in Leiden

➢ Developed to a flexible tool where you can analyze thousands of articles and find and show relations between  authors, journals, subjects or words

➢ Wanted to catch up on our bibliometric expertise

# VOSviewer – masterclass fall 2018

- 2 days workshop – lots of hands on !!

- Learned a LOT about …

  - Underlying algorithm

  - Change of layout

  - Editing thesaurus file


- Learned about VOSviewer corpus and scoresfiles

# VOSviewer – arguments for visualizations

- Visualizations can be used to make complex information more accessible

- Visualizations need to be used in combination with expert knowledge:
  - Confirm expert knowledge
  - Challenge expert knowledge
  - Draw expert's attention to interesting information

- Be aware of information loss and methodological sensitivity

- Visualizations can also be used pragmatically to attract attention and to 'sell a message'

# Own experiences: Innovation

➢ Review on innovation

➢ Focus on 15 journals

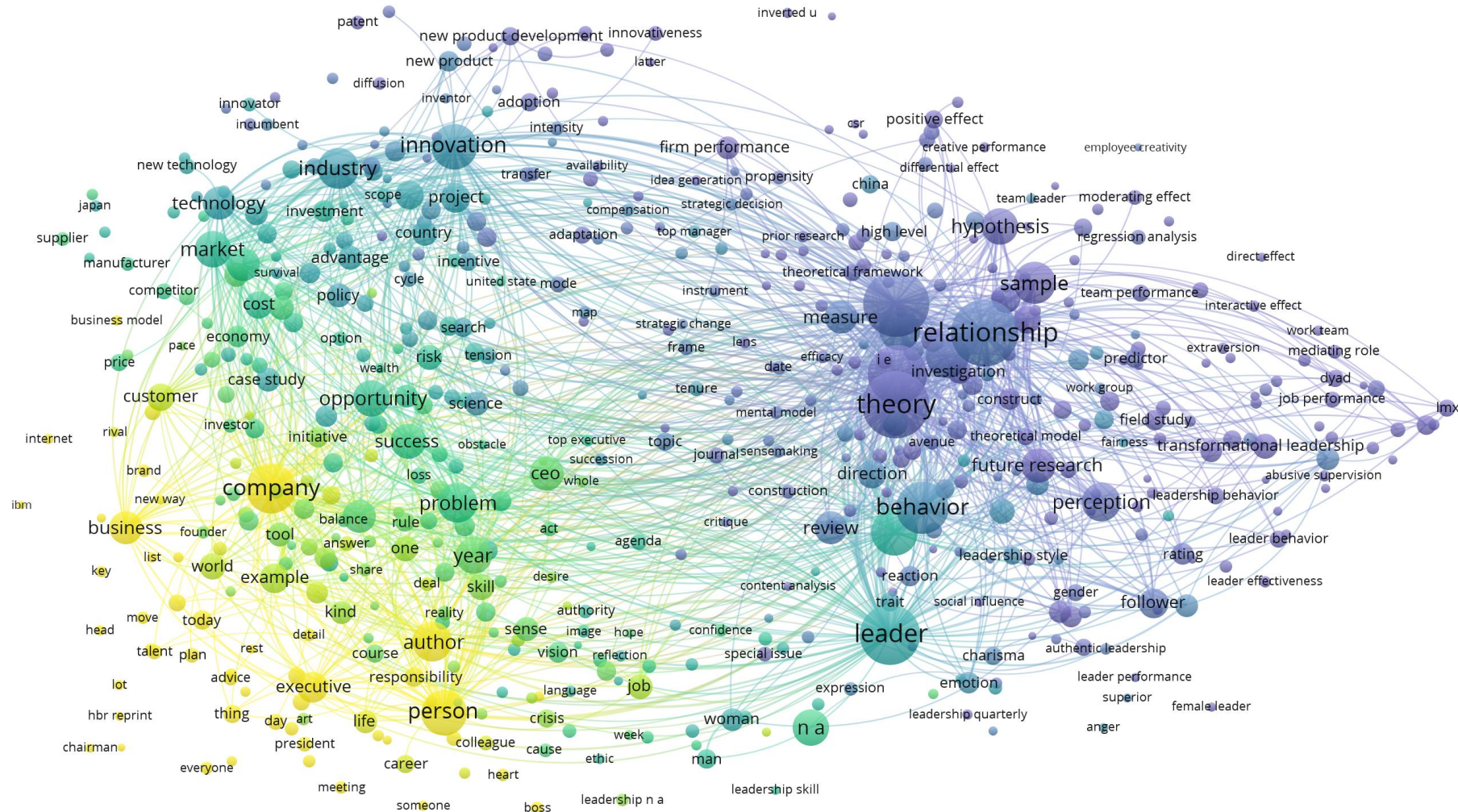➢ 5000+ articles

➢ All in WOS

➢ Started themself in VOSviewer

# Co-citation on cited sources

Co-occurence word

Co-occurence word – overlay year

# Analysis VOSwiever files



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VOSviewer

# Academy of Management Journal

# Harvard Business Review



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VOSviewer

# Own experiences: China search

➤ State Capitalism+ & strategy
➤ Scopus 1531 articles 2008-
➤ Vosviewer ended with 26015 terms
➤ Map: More than 10 times, 715 terms,
  60% most relevant 429

VOSviewer

# Own experiences: small map problem

➢ Small maps often look strange

➢ AU, BSS researchers

➢Co-authorship on authors

# Co-authorship on authors
## Attraction = 2, Repulsion = 1

# Co-authorship on authors

Attraction = 2, Repulsion = -1
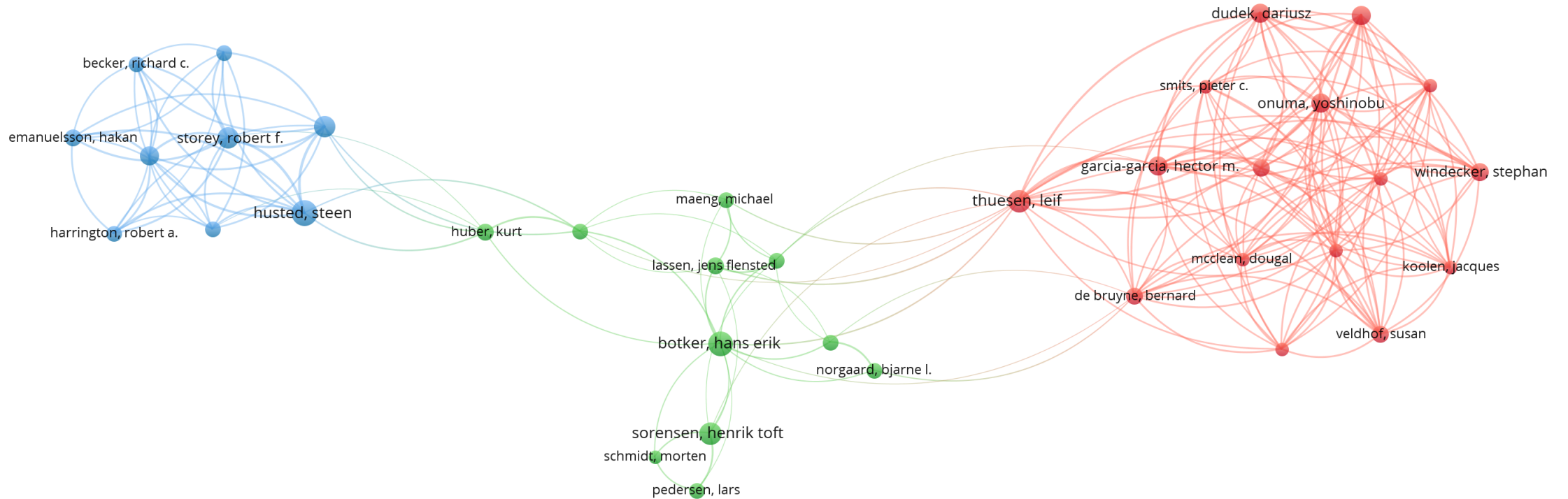


VOSviewer

# Own experiences: VOSviewer teaching

➢ 2 hour program (only basics)
  ➢Introduction
  ➢3 cases with **hands on** (different data)


➢Positive feedback (they are critical – loose control)


➢Will follow up with an advanced course

# What's next ??

—Work a lot with visualizations
—Develop our compentences (long term)
  –Text mining, API, Python, AI, ML (time consuming)
—OPERA

# OPERA - Open Research Analytics

➢ **Open Science, Open Science metrics, Humanities and Social Science**

➢ **https://deffopera.dk/**

➢ **WP3: Network analysis and visualization**

➢**Fantastic workshop with Dimensions and Python**

# OPERA - partners

- ➢ **Cornel University**
- ➢ **CWTS – Centre for Science and Technology Studies, Leiden**
- ➢ **Technical University of Delft**
- ➢ **TIB – Technische Informationsbibliothek, Hanover**

# What's important ??

— **Contact to researchers**

— **INCONECSS**

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# Final comment

**Mikael Laakso**

**If you ask the right question –
you get the right answer**

**Visualizations might not give you answers –
but i helps you ask the right questions**

➢ Questions
➢ Comments