



# What are ‘Communities of Practice’?

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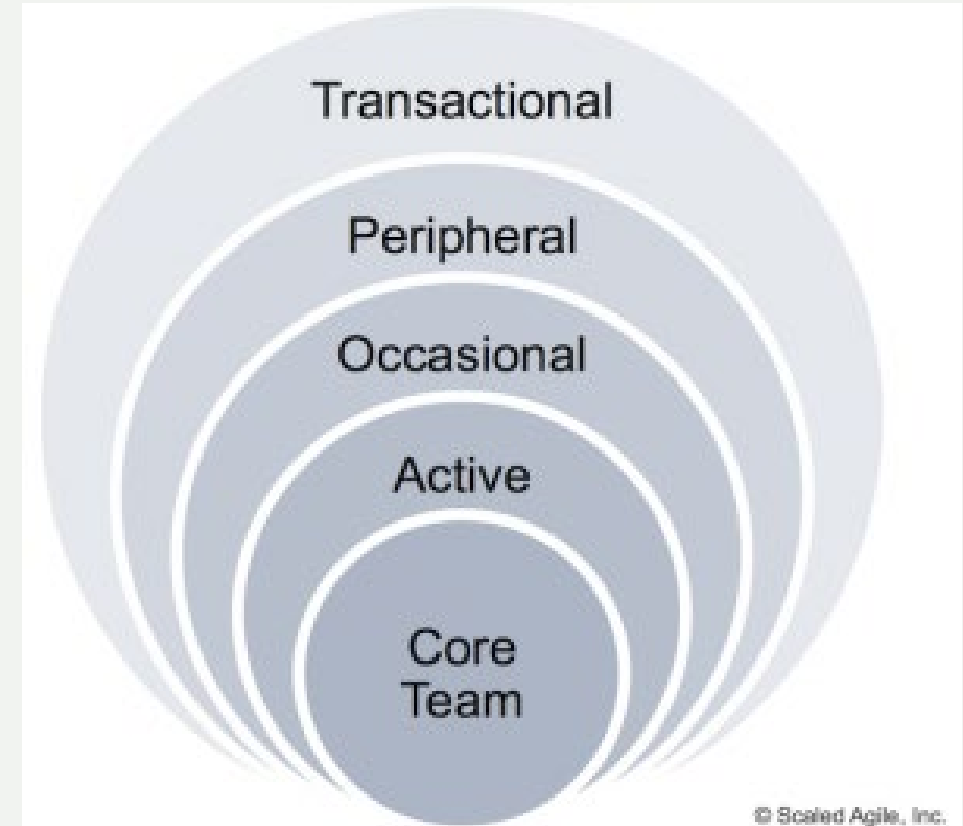
# What is a community of practice?

- the **community** shares a commitment to a specific domain of interest and to developing new relationships and connections, enabling co-authorship, work teams and shared institutions;
- the **domain** or topical area the group works on should evolve, allow for learning to increase competence and to define success, and allow for shared use of models, satellite data, geographic extent and topics of interest; and
- the **practice** the community conducts allows for working towards similar goals, developing a shared repertoire of methods, vocabulary, and resources through experiences, stories, tools, and ways of addressing recurring problems (Etienne Wenger 2011).



# Communities of Practice are self-organizing

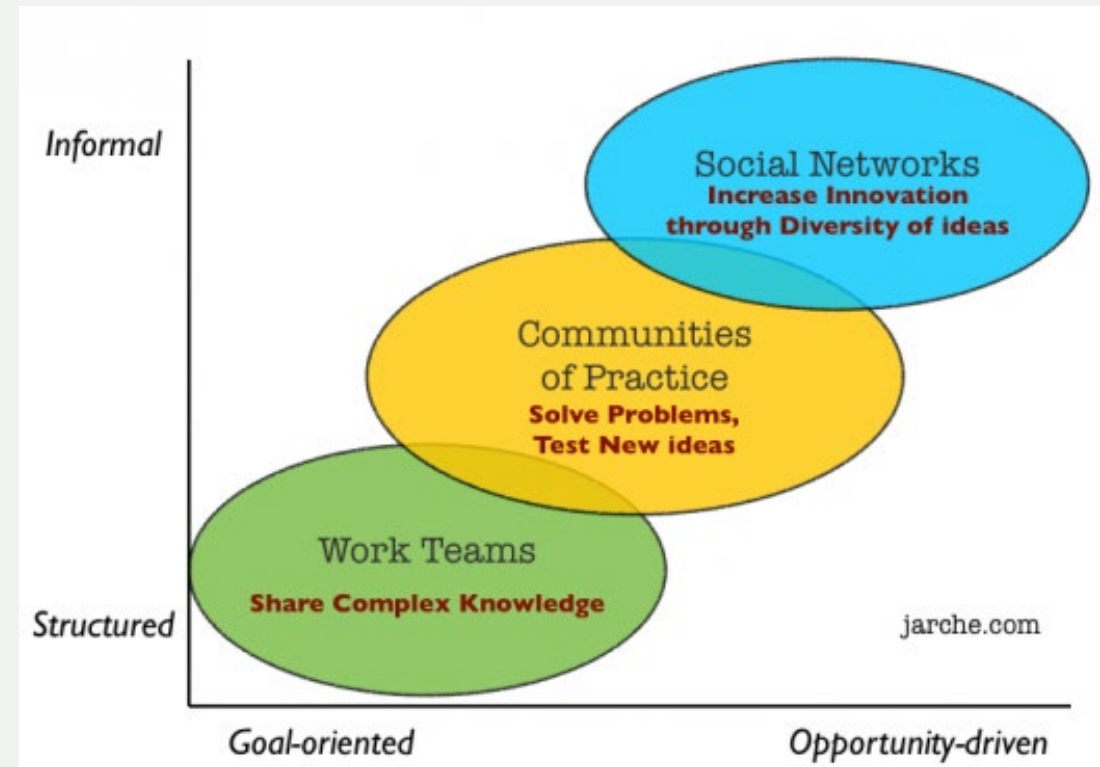
- CoPs are highly organic, and like most living organisms they have a natural life cycle
- CoPs are formed in the committing stage by a small, core group of practitioners who share a common passion and need for a particular domain.
- CoP members exhibit multiple levels of participation.



# Building a vibrant Community of Practice

Core team members focus on maintaining the health of the community by:

- Keeping things simple and informal
- Fostering trust
- Ensuring the rapid flow of communication and shared awareness
- Increasing the shared body of knowledge developed in the CoP

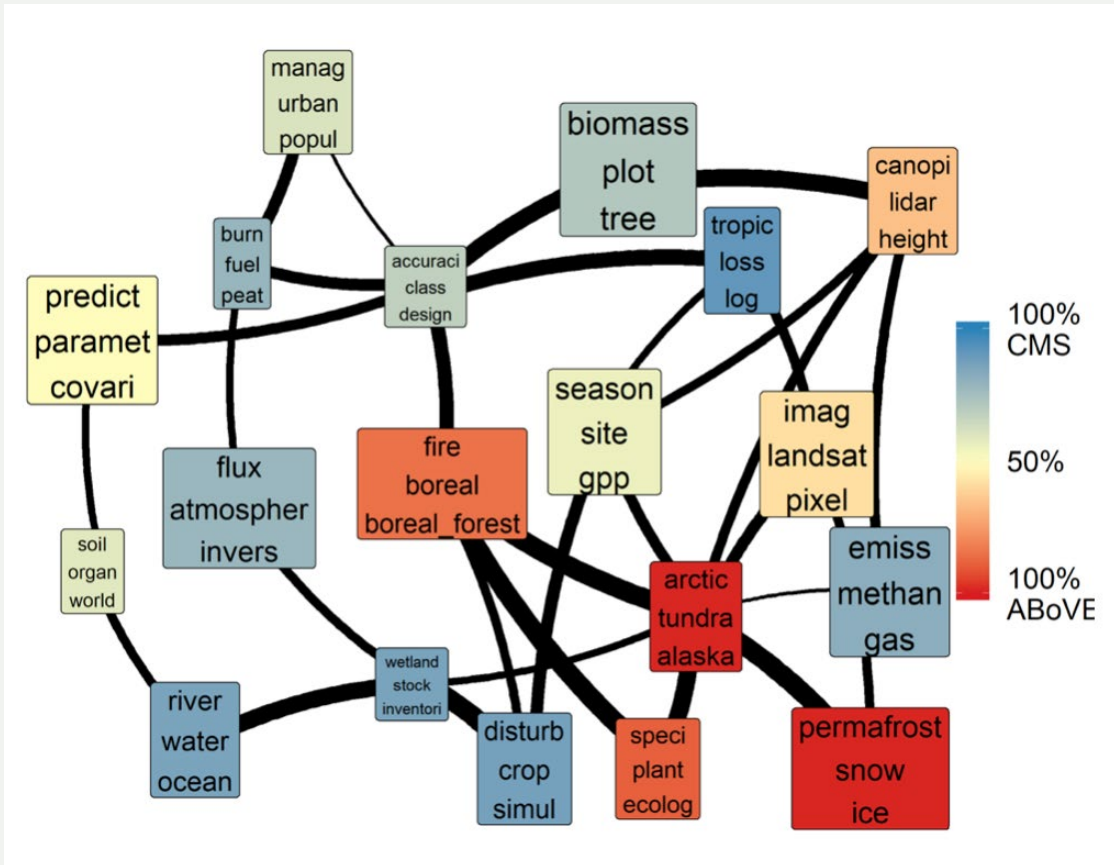


‘These communities, internal and external, are a safe place between highly focused work and potentially chaotic social networking. I also see the support of communities of practice, through skill development and structural support, as a primary role for learning & development staff.’

–First structure the work system, Harold Jarche



# Measuring a community of practice for NASA Carbon Monitoring System (CMS) and ABoVE



Brown, Cooper, Griffith (2020) ERL

- We developed a Correlated Topic Model on the 521 papers produced by the two programs. A CTM is an unsupervised classification model that use all of the words in the 521 papers as their basic units of analysis.
- We found that CMS and ABoVE form a community of practice. The analysis of the literature showed:
  - A coherent domain/topics across publications
  - A connected community with clear institutional persistence, and
  - An evolving method/practice that improves through collaboration
- The CMS and ABoVE programs benefits from sustained engagement with stakeholders due to recurring funding and support by the program office.

Thank you!

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