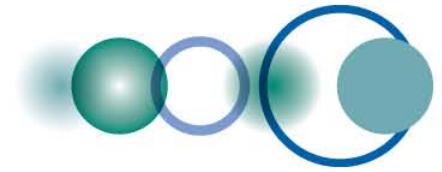


ROLE OF THE GEO AQ COMMUNITY OF PRACTICE

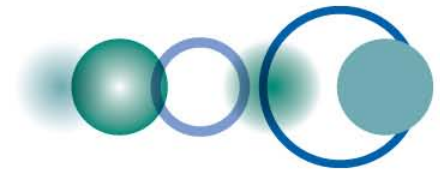
Gary J. Foley, PhD, USEPA
Co-Chair, GEO User Interface Committee
Co-Chair, US-Canada Int'l AQ Advisory Board
June 16, 2010



GEO 2005:

Communities of Practice:

The Theory



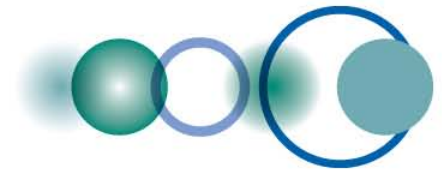
Communities of Practice are . . .

Groups of people who share a concern, a set of problems, or a passion about a topic and deepen their knowledge by interacting on an ongoing basis



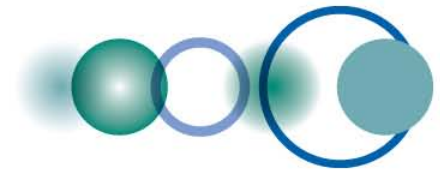
**Etienne Wenger
Richard McDermott
Bill Snyder**

Cultivating Communities of Practice,
Harvard Business School Press, 2002



Three characteristics are crucial:

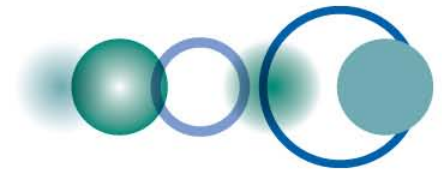
- Domain – the concern, interest or passion
- Community – those who interact and/or value the interactions, often practitioners
- Practice – members are practitioners that work toward some goal or outcome



Three characteristics are crucial:

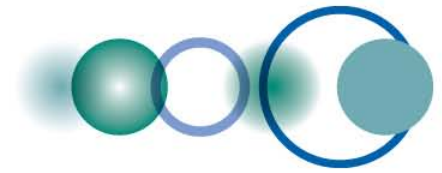
- Domain – the concern, interest or passion
- Community – those who interact and/or value the interactions, often practitioners
- Practice – members are practitioners that work toward some goal or outcome

A community of practice is not just an interest group



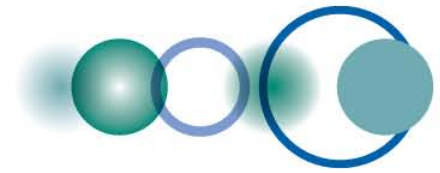
CoP Classic Characteristics

- Self-organizing, Informal
- Many kinds of members: contributors, lurkers, newbies, facilitators, etc.
- Voluntary, based on trust
- Joint learning; Sharing of best practices; Reusable knowledge bases
- Require more than just discussions
- Interested in data/information infrastructures, interoperability, sharing, integration
- Members distributed across many disciplines that share the common concern, interest or passion



GEO User Interface Committee in 2005:

**What conceptually would an
AQ Communities of Practice
look like?:**



From observations

AQ observations & AQ/
atmospheric models

Data-to-Information
archiving & services

Decision support tool
development

Decision making

Assessment of benefits



AQ/atmospheric scientists and
modelers

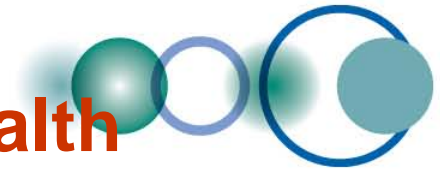
AQ data managers and
providers

Environmental process
modelers & researchers

Policy Makers, Publ Health
officials, AQ managers,

Public officials, advocacy
groups and the Public

To societal benefits

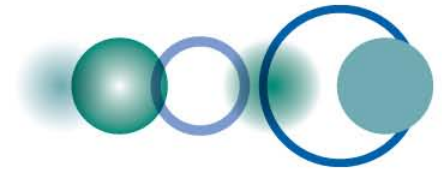


A Conceptual Air Quality & Health Community of Practice (2005)



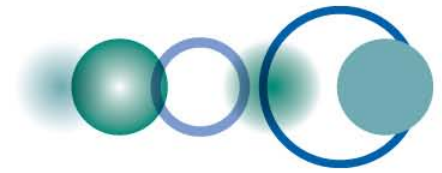
Communities Have R&D & Operational Activities

Communities Exist but Only Have Limited Interactions in 2005



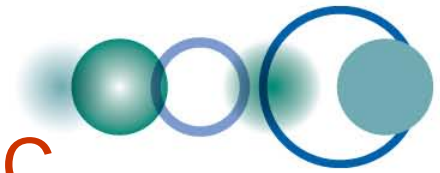
GEO 2010:

Communities of Practice: The Status



Current GEO Communities of Practice

- Air Quality
- Biodiversity
- Carbon Cycle
- Coastal Zone
- Cryosphere
- Energy
- Forests
- Geohazards
- Global Agricultural monitoring
- Health & Environment
- Integrated Water Cycle



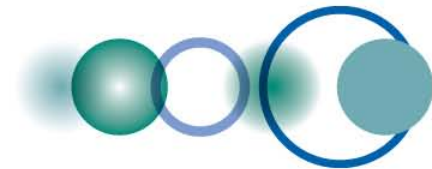
Recent Presentations to the UIC 14th Meeting, February 2010

- Carbon Community of Practice (R. Dargaville)
- [Energy Community of Practice](#) (E. LeDrew)
- [Agriculture Community of Practice](#) (J. S. Parihar)
- [Coastal Zone Community of Practice](#) (H. P. Plag)
- [Water Community of Practice](#) (R. Lawford)
- [The Way forward for the Cryosphere Theme](#) (J. Key)
- [Air Quality Community of Practice](#) (R. Husar)
- [Forest Community of Practice](#) (M. Brady)
- [GeoHazards Community of Practice](#) (S. Marsh)



What have we learned in GEO about global and local AQ so far?

- For local AQ and health, it is 60 % community and 40 % technology to produce success
 - The public wants environmental information, but depends upon the community to interpret it
 - The community provides the context that lies between the data and the public, e.g. AIRNow Shanghai pilot
- For transport, a good accomplishment is the linkage of WMO's Sand & Dust Storm Warning System and MERIT's Meningitis Decision Support Tool

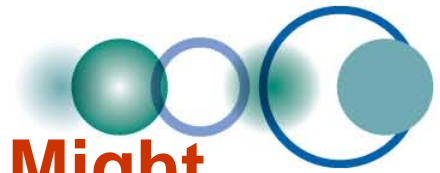


Extra Slides



Public officials, Advocacy Groups and the Public

- What do they care about?
- Which environmental issues personally and/or professionally interest them?
- What decisions do they regularly make and how do they get their information?
- How would they assess the value if they could make better decisions?



Public Officials – What Benefits Might Interest Them?

1. The air is cleaner and safer to breath
2. Stimulate and encourage early adopters of new technologies
3. Widespread voluntary measures occur
4. Maintain the Country's competitiveness (electricity and energy)
5. The Public is well-informed with real-time information, uses it & sees the benefits



The Public – What Benefits Might Interest Them?

1. The air is cleaner and safer to breath
2. How do I protect myself and my family when air pollution alerts occur?
3. What voluntary measures can I take?
4. How do my lifestyle & activities lead me and my family to greater involuntary risk?
5. How do my lifestyle & activities lead to greater pollution episodes and risk to my community?
6. How do I keep well-informed with real-time information and how should I use it?