

Learn, Exchange, Develop

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The oil and gas industry has led the way in knowledge management for many years; organizations like Shell and BP have been described as flagship companies in the use of communities of practice to improve the development and exchange of organizational knowledge, and to provide higher-quality services at lower cost.

This chapter compares fundamentally different knowledge management strategies adopted by three large engineering service providers in the oil and gas industry. Each company employs tens of thousands of employees in locations around the world, has a flat structure, a high degree of specialization, and a history of regular reorganization.

The first company initiated a technology-based community of practice to support engineers in their decision-making. The electronic system has three knowledge bases: 1) performance guidelines; 2) an online training system; and 3) a repository of lessons learned. The repository of lessons was built on semantic modelling of the knowledge domain, followed by intensive knowledge acquisition campaigns with expert engineers. A central team maintained the system and regularly updated the lessons learned.

The study found the guidelines and lessons learned components were used regularly (although users were unable to add lessons without help, and help was hard to find), but the online training was used irregularly and received the lowest satisfaction rating.

The second company adopted a "people to solutions" and "people to people" approach. Management set out to replace peer-to-peer e-mail habits with a central communications hub. They initiated a broad range of communities of practice, driven by a central support team, on topics like electrical engineering, human resources, and performance measurement. Employees could join any of the communities and were supported by a "skill-finder" database and a threaded discussion tool.

The study found uptake was slow, and the most-active groups were those that pre-existed the initiative. Participants perceived the benefit of the communities as mainly local. Many employees thought the web portal was used too much for virtual meetings and too little for "visioning."

The last company adopted a community of practice organizational structure, with country- and function-spanning communities replacing the existing departmental structure. Former directors "managed" the communities that had annual budgets and were responsible for spending, hiring, and firing.

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Key messages

- Organizations increasingly see communities of practice as a tool for exchanging knowledge and fostering an environment of learning.
- Communities of practice are being initiated and supported in very different ways.
- Naturally existing communities, and communities inclined toward electronic communication systems, generally perform best as communities of practice.

The study found that while many employees relied on information available via the community portal, a significant number did not know it existed, and an overwhelming majority was not subscribed to any e-room. Overall, employees argued the virtual communication was very impersonal and technically problematic at times, and that the communities were unequally developed.

Lessons and questions

The authors compare the results of these three studies with the outcomes of a three-year, online discussion among community of practice practitioners and advocates. Some of the study's key lessons are:

- In planning a community-based knowledge management approach, companies are wise to consider issues related to purpose, capacity-building, and long-term impact.
- Communities can be used to increase participation and democracy and to establish and reinforce control. A company should ask itself to what end it is applying the concept of a community of practice.
- Naturally existing communities, and communities inclined toward electronic communication systems, perform best as communities of practice.
- "Lessons learned" databases are slow learning tools if not well-supported, technically.
- Communities of practice are not suited to the delivery of services on all fronts.

The authors pose questions that communities of practice at all levels of development would be wise to reflect upon. The authors underscore the dance of a community between freedom and purpose, and stress that "communities of practice have the inherent potential to 'think beyond boundaries' and to instigate creativity and innovation – if they are allowed to do so."

Troxler, Peter and Kristina Lauche. 2006. "Learn, Exchange, Develop," in Kazi, A.S. and P. Wolf, *Real-Life Knowledge Management: Lessons from the Field*. KnowledgeBoard in collaboration with VTT – Technical Research Centre of Finland (www.vtt.fi).