

***Knowledge Management and Expert
Networking***

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Global Business Pressures

Industries throughout the world are tightening the screw on corporate performance. Budgets and personnel are squeezed in order for profits to increase, consistent with the goal of strengthening the position of each company within the marketplace. By the very nature of this new order, "throwing more resources" at the problem is no longer an option.

Given this new environment, many *process transformations* have taken place in order to strengthen companies internally. Some of the more visible examples include vendor partnering, just-in-time (JIT) delivery and expanded use of contractors / labor pools.

Information Process Improvement

Many of these same transformations which have worked well for material resources also apply to information, knowledge and "expert" resources. One key concept is ***Knowledge Management***, which has been defined as:

"The process of capturing an industry's collective expertise *wherever* it resides."

From this concept, two applications emerge:

- Applying Knowledge Management to tasks we already know how to do enhances *Productivity Improvement*.
- Applying Knowledge Management to new and different tasks accelerates *Innovation*.

Putting these two applications into effective action requires agreement on two additional points:

1. The correct result of Knowledge Management is getting the right knowledge to the right people at the right time so that they can make the right decision.
2. Effective implementation of Knowledge Management requires *attitude, paradigm and cultural change*.

Implementing "Improved Knowledge Practices"

Getting the most from your intelligence gathering efforts is a great concept and makes sense - but where do you start? How do you optimize your time to get the most useful knowledge to assist with *your* needs? Which *Information Tools* do you select?

The Internet

Anyone who has researched the Internet in order to find a particular fact can probably sympathize with the following comments:

- “The Internet is like walking into the world’s largest library without a card file.”
- “Getting useful information from the Internet is like trying to take a sip from a fire hose.”

Some people get so engrossed in gleaning the Internet for information that they sometimes forget that “the Internet is a tool - not the answer.”

Internet Alternatives

Fortunately, there *are* alternatives.

- **Information Networking** brings *effectiveness* to the process of gathering relevant facts.
- **Managed Expert Networking** is another valuable concept as applied to making optimum use of knowledge resources. While “networking” among peers has existed for centuries, process improvement demands that *greater effectiveness* be obtained from this activity.
- **Information Services** are nonprofit or contractor-operated services designed to keep these processes effective - it’s “their job.” Contracting an Information Service organization allows industry groups to have the benefits of networking at a *fraction* of the cost of keeping one person on the payroll to operate and manage this function for the company.

Putting an Information Service organization to use can help you:

- *Discover previously-solved problems*, so that you don’t have to “reinvent the wheel.”
- *Identify equipment-specific experience*, which will direct you toward selecting “best practices” as it relates to that equipment.
- *Increase your options*, thereby increasing the opportunity to make the *best decision*.

Profile of an Electric Power Industry Information Service

NUS Information Services (NUSIS) is located in Clearwater, Florida and provides information, knowledge and expert networking services to electric power industry clients in 20 countries on five continents.

NUSIS is subdivided into several separate information services which focus on specific "market niches" within the electric power industry, so that clients may choose those specific services which relate to *their* needs.

NUSIS has a staff of 45 personnel, who represent 600 "person-years" from 46 electric utilities and 70 power stations. These personnel respond to *over 45,000 requests* for information annually.

The individual services are backed up by over 70 million pages of text which is full text searchable by its clients, 24 hours a day.

Profile of a "niche" Information Service

The Fossil Operations and Maintenance Information Service (FOMIS) was founded in 1980 by seven fossil-fired power stations who were trying to "build a better system" for exchanging operating and maintenance information. The success of FOMIS has expanded from these origins to include all plant activities (Administration, Chemistry, Engineering, Environmental, Safety, Training, etc.) at 120 stations worldwide.

During its 18 years of operation, FOMIS has produced over 17,000 Reports, containing nearly one million station responses, which are full text searchable on line by its participants.

FOMIS also provides its clients with 24 hour access to the FOMIS staff, to assist with urgently needed information or emergency spare parts.

Networking with this number of participants, when asking questions, results in a cross-section of responses which are *statistically significant*.

Report Database

Looking into one of the FOMIS databases which contains reports (questions asked by clients and responded to by other FOMIS participants), users can interrogate the database contents using a variety of text search options. For those interested in "performance" topics, the following search steps could be performed:

1. Open the databases (1980-1989 and 1990-Present).
2. Select the "Query" tool.
3. Type "performance monitor*" in the text search box (without the quotes) and then click "OK."

4. The search identifies 115 FOMIS Reports of interest.
5. Detailed searches on *other characteristics* of the Reports ("Performance Testing," "PEPSE," "PMAX," "ASME Turbine," etc.) can be performed and reviewed separately.

In a similar manner, searches on specific equipment or components can be performed with a few quick steps. An example is provided below:

1. Open the databases (1980-1989 and 1990-Present).
2. Select the "Query" tool.
3. Type "analyzer" in the text search box (without the quotes) and then click "OK."
4. The search identifies 210 FOMIS Reports of interest.
5. Details of the analyzer questions (analyzer manufacturer, analyzer application in the system, etc.) can be reviewed in detail or summarized.

"Case History" - Suncor

- Suncor is a private company located in northern Alberta. The firm process tar sands into petroleum products. Suncor has been a FOMIS participant since 1995.
- The site was faced with a need to upgrade the water treatment system capacity, which was going to require a \$1 million (Canadian) capital expansion of the building to accommodate the new equipment.
- A contractor on the project suggested an alternative technology which would allow the building expansion costs to be avoided, but the technology was unfamiliar to the Suncor engineers.
- In an effort to seek "end user" experience with this new technology, Suncor submitted a request through FOMIS. Based on the overwhelming responses obtained through other FOMIS participants who had used this technology, Suncor committed to the new technology with greater confidence.
- *Bottom Line* - As a result of *one phone call* to FOMIS, Suncor obtained enough information and experience to reach a decision which helped the company avoid a \$1 million capital expenditure.

The Next Step

The next step, and perhaps the most important step in bringing the value of expert networking to your site is getting started. Make a conscious effort to

- Examine the offerings of Information Service providers to see if their services match your needs and interests.
- Discuss “networking options” with your industry peers (professional societies, regional groups, etc.)
- Explore the Internet for *leads* to “expert resources.”

These steps can pay dividends to your company in reducing the “duplication of effort” associated with re-inventing an *already existing* solution.