KNOWLEDGE MANAGEMENT

IMPLICATIONS and APPLICATIONS for DEVELOPMENT ORGANIZATIONS

Editor: Patrik Hunt

Report of a workshop co-organized by the Bellanet International Secretariat, the Benton Foundation, the Canadian International Development Agency (CIDA), and the International Development Research Centre (IDRC).

BENTON FOUNDATION, WASHINGTON, DC
FEBRUARY 2-4, 2000
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Knowledge is an essential foundation for equitable and sustainable development. The ability to manage knowledge effectively is becoming a top priority for key decision makers in the development community. But what is Knowledge Management? And how do the principles of Knowledge Management apply to a development organization and its relationships with partner organizations?

The aim of the *Knowledge Management – Implications and Applications for Development Organizations* workshop (February 2-4, 2000 in Washington, DC) was to clarify, explore, and position Knowledge Management within the cultures and practices of the international development community. By forming a partnership to organize this event, we hope to promote organizational understanding of and learning about knowledge sharing, and to encourage collaboration amongst members of the international development community around these challenges.

This report serves as a document of record intended to serve two separate audiences – those who attended the workshop in person and contributed to a very rich experience over the course of three days, as well as the broader community interested in the theme. It is the basis for ongoing collaborative work aimed at fostering effective knowledge management.

We invite you to visit the *Knowledge Management – Implications and Applications for Development Organizations* Web site (http://www.bellanet.org/km/).

David Balson
Bellanet International Secretariat
EXECUTIVE SUMMARY

Over the past 18 months, the Bellanet International Secretariat has been actively working to promote awareness of knowledge management (KM). As an emerging field, KM provides a useful framework to advance Bellanet's mission "to increase the impact of development activities through greater collaboration".

Discussions with interested partners in the development community rapidly demonstrated significant demand for a workshop on Knowledge Management for development organizations. Plans for the workshop took shape and gained momentum during the last quarter of 1999. In November, a partnership was struck between Bellanet, CIDA (the Canadian International Development Agency), and IDRC (the International Development Research Centre) to jointly fund, conceptually develop, and implement a workshop entitled, Knowledge Management - Implications and Applications for Development Organizations. The Benton Foundation in Washington agreed to host the event from February 2-4 2000.

Over the course of those three days in February some 38 participants from 18 development organizations gathered to actively participate in what proved to be an extremely rich experience. Senior managers and program staff met to reflect on the role of knowledge in each of their own organizations. The workshop had three broad goals:

- **Benchmarking**: understanding what other organisations are doing in the field of KM, including approaches to fostering cultural change to enhance innovation;
- **Learning**: strategies, planning and implementation as exemplified by case studies focusing on policy, administration, and technology use;
- **Building relationships**: identification of organizations practising effective KM and methods for collaboration.

This learning, networking, and relationship building was expertly nurtured by an excellent cohort of presenters drawn from both the private and public sectors. Indeed, the workshop Organizing Committee was fortunate in being able to tap a broad range of expertise in the following presenters (see Appendix for biographies: http://www.bellanet.org/km):

- **Larry Prusak** - Institute for Knowledge Management, IBM
- **Stephen Denning** - Knowledge Management Program, World Bank
- **Stuart Salter** - Scientific and Technical Resources/Specialists, CIDA
- **Louis de Merode** - Silver Creek Associates
- **Chris Smart** - Special Initiatives Program, IDRC
- **Jean-Pierre Béguin** - Office of the Controller, Inter-American Development Bank
- **Steve Glovinsky** - UNDP Sub-regional Resource Facilities
- **Steve Song** - Bellanet International Secretariat
- **Barbara Weaver Smith** - Smith Weaver Smith, Inc.
- **Alison Sestina** - DMR Consulting Group
- **Jennifer L. Smith** - The Governance Network
- **Dawn Nicholson-O'Brien** - Treasury Board of Canada, Corporate Renewal Office
Lyle Makosky of InterQuest Consulting played a key role in facilitating the numerous planning committee meetings, providing a conceptual framework, and expertly facilitating the workshop itself (see Appendix).

Based on a pre-workshop survey, it was clear that very few of the participating organizations had KM strategies in place, although most were in the process of planning one. The survey also revealed an eagerness to learn, not only about KM itself, but also directly from colleagues working in this field about their unique KM experiences, ideas, and plans.

What follows are highlights of the learning that took place during the workshop, based on themes and objectives developed by the Organizing Committee (see Appendix).

**THEME 1: Understanding Knowledge**

**OBJECTIVE: Organizational Understanding of KM**

**Highlights:**
- Knowledge management is real and here to stay
- Knowledge and information should not to be confused with each other
- Knowledge itself cannot be managed; the environment in which it is created can be
- Choose connectivity over codifying knowledge

**THEME 2: Defining the Knowledge Business & Strategic Purpose**

**OBJECTIVE: Organizational Models for KM**

**Highlights:**
- Importance of knowing where knowledge is located within an organization
- A clear, strategic purpose is essential for the creation of a map of knowledge assets
- Consider a modest, realistic KM strategy for your organization

**THEME 3: Managing the Knowledge Structure & Process**

**OBJECTIVE: Knowledge Management Approach**

**Highlights:**
- Building communities of practice is currently the most popular KM strategy
- Organizations must support communities of practice culturally and financially for them to thrive
- Incentives for workers are key
THEME 4: Building a Knowledge Culture & Momentum

OBJECTIVE: Organizational Learning

Highlights:
- KM leadership from the top is crucial but KM leaders need to be found throughout the organization
- Big mistake to look at technology as a quick-fix solution for KM
- Be prepared to fail in the implementation of your first KM strategy; this is difficult but ultimately worthwhile work.

THEME 5: Fostering Knowledge Management Networks

OBJECTIVE: Knowledge Networking

Highlights:
- Enthusiasm for pursuing KM discussions in the international development community and learning from what others are doing
- Possibilities for an ongoing e-mail and Web forum on KM for development currently being explored
- Idea of holding subsequent KM Workshops received much support.

Based on both formal and informal feedback the workshop was exceptionally well received by both participants and presenters. There were several recommendations for carrying the process forward. The suggestion to organize a follow-up European workshop met with almost unanimous support. Enthusiasm for it was such that plans for European workshop began to take shape during the Washington gathering.

This report, as well as a range of resource material (e.g. background papers and articles, participant list, agenda, presentation material, presenters' biographies, and a bibliography) is available on the KM Workshop Web site (http://www.bellanet.org/km). The Website will also serve as the focal point for potential communities of practice discussing specific KM themes.

Other important outcomes include preliminary discussions on possibilities for Southern KM workshops in the South, as well as interest in exploring the linkages between KM and evaluation/learning activities for development.
WORKSHOP OVERVIEW
Pre-Workshop Survey Results

A total of 28 workshop participants were invited to reply to an e-mail survey on organizational readiness and approach to knowledge management. Seventeen replied, for a response rate of 61%.

In response to the question “Does your organization have a Knowledge Management strategy in place?”, a majority replied “No, but we have plans for implementing one”, indicating that most organizations polled are currently at the planning stage for implementation of a Knowledge Management strategy. Comments reveal that several organizations have recently begun this process. Three respondents responded with “Yes, and it is working well”.

When queried about their most significant KM challenges, a variety were identified by most respondents, with the most predominant being:

i) Defining the purpose and focus of a KM strategy for our unique needs
ii) Getting the leadership to support and commit to a knowledge management plan
iii) Getting staff to support and use a knowledge management approach
iv) Developing effective human resource policy to support knowledge workers

Expectations of the workshop were also varied, with many respondents expressing a common desire to know about KM efforts and initiatives currently being developed or underway by colleagues in other development organizations. Further expectations, expressed as questions, included:

- What is “knowledge management” (i.e. a clear definition of the concept)?
- How does KM differ from what we do today?
- What exactly are peers doing in this area?
- What are the pros and cons of a CIO or CKO?
- How does organizational culture have to change to be successful at KM?
- How can we identify the ‘knowledge gaps’ in our organization?
- “How do traditional functions like a library, clearinghouse, institutional memory, research service, information center, performance measurement, evaluation, and training ... fit into a knowledge management strategy?”
- How can I “define the scope of the project and prioritize knowledge elements that need to be implemented”? Where can we get some help in “figuring out how to get from here to there (and where ‘there’ is)”?
- How can we share “practical experiences with people who are involved with the development of KM programs in their respective institutions”?
- How can large, bureaucratic organizations change to use available knowledge tools?
- How can we learn about appropriate technologies for KM?
- How can we explore potential partnerships?
- "How can we collaborate with one another to share what we know, and work together on projects so that developing countries get the best knowledge applied to their situations?"

**THEMES AND OBJECTIVES**

The Organizing Committee developed the following themes and related objectives as a conceptual guide for the design of the workshop. They were created to respond to the perceived knowledge management interests of the international development community and to guide the design of the workshop. These themes and objectives are also included in the agenda as reference points for the various workshop topics and presentations.

**THEME: Understanding knowledge**

**OBJECTIVE: Organizational Understanding of KM**

Provide a common understanding of Knowledge Management including how it applies to the field of international development and related development organizations.

**THEME: Defining your organization’s knowledge business & strategy purpose**

**OBJECTIVE: Organizational Models for KM**

To enable participants to portray their organizational business model as it relates to KM, and to identify the strategic purpose and benefits of KM for their organization.

**THEME: Managing the Knowledge Structure & Process**

**OBJECTIVE: Knowledge Management Approach**

Provide insight and guidance to the development of a KM approach in a development organization by:

i) identifying the key focus areas in an organization for a KM approach;

ii) providing diagnostic aids to help self assessment of readiness in each focus area;

iii) providing guidance on the next stages of development that respond to the state of readiness.

**THEME: Building a Knowledge Culture & Momentum**

**OBJECTIVE: Organizational Learning**

Provide guidance and experience in how to foster an organizational culture that embraces, integrates and utilizes KM.

**THEME: Fostering Knowledge Management Networks**

**OBJECTIVE: Knowledge Networking**

Provide an opportunity for participating organizations to learn about collaborative approaches to the development of KM and to lay the groundwork for international networking and joint learning in the development community regarding KM.
This diagram depicts the workshop’s overall design and the key topics covered.

The three central bands depicted in the diagram identify the broad streams explored during the course of the workshop:

**Stream 1: Defining the knowledge strategy for your organization**

This stream is based on the fundamental requirement to be clear, at the outset, of the strategic purpose and benefits of a KM strategy and how it contributes to your knowledge business model. We address the question of what kind of KM strategy to select to fit the purpose by using a methodology called ‘Knowledge Asset Mapping’. The results of the mapping also help to outline the rudiments of your knowledge acquisition and sharing strategy.

**Stream 2: Developing the enabling infrastructure for your KM strategy**

This flow addresses in turn each of the core infrastructure components:

**Leadership and culture** – getting leadership buy-in, fostering a belief system and culture in your organization that encourages enthusiastic commitment to your KM approach.
Creating the enabling technology environment – defining, selecting, and harmonizing the range of available technologies to fit the components and different stages of the KM approach.

Stewarding your knowledge process – identifying and putting in place the management frameworks to guide your KM strategy.

Fostering people skills and development – developing the human resource methods and practices that will help identify and encourage knowledge oriented and skilled staff, and creating the ‘spaces’ and approaches that support learning and exchange among your knowledge staff.

Stream 3: Building KM networks in the international development community
KEYNOTE PRESENTATIONS
Prusak Unplugged (Larry PRUSAK)

"Technology can’t communicate passion and emotion well ... but technology combined with face-to-face story-telling can amplify knowledge." - Larry Prusak

Synopsis:

As Director of IBM’s Knowledge Management Institute, Larry Prusak displays a rare ability to combine scholarly wisdom on the emerging field of KM with the in-your-face attitude of a New York City cabbie. Prusak provided a provocative and stimulating keynote address to set the workshop off on the right foot, sketching an overview of the field and history of KM, as well as identifying specific strategies for organizations to consider.

At the outset he identified the crucial importance of including knowledge as a key factor for international development, noting that development organizations such as the World Bank have ignored this factor throughout most of their history. The integrity of words used to talk about concepts such as “knowledge management” is of concern to Prusak. He acknowledges that the phrase is a misnomer since knowledge cannot be managed at all, whereas work environments and organizations can be. Like love or patriotism, knowledge cannot be measured either, despite the current proliferation of enthusiastic attempts to do so.

Since embarking on KM research some 15 years ago, Prusak has always believed in using words carefully in order to be clear about purpose. For example, when talking about the human (as opposed to the technological) subject of KM, it is important to start with clear definitions.

Data, for instance, is the “change of state captured in a system”, and not all that interesting or valuable unto itself since it doesn’t change you as a person or provide you with judgment. Moving along the continuum, information is “a message with a sender and receiver ... bounded or frozen in some form”, such as a letter, Beethoven’s Ninth Symphony, or Picasso’s Guernica. Knowledge, quite simply, is “what people know ... period”.

While this definition of knowledge is taken directly from the word’s etymology, it doesn’t speak to the elusive aspects of the subject. For example, the fact that knowledge outside of one person doesn’t exist; it only exists in groups of people, a nuance that Human Resource departments just don’t understand. Also, the importance of experience is not captured adequately; it often takes a good 15 years of work experience to really “know” something about a topic. There is value in this type of experiential knowledge that cannot possibly be possessed by recent university graduates who come equipped with lots of information only.

Also problematic is the gap between existing knowledge and its application. Why are children still dying of diarrhea around the world when the medical knowledge about how to
treat it exists? What is lacking in KM study is a comprehensive social theory (as opposed to limited heuristic, case-based analyses), which takes into account culture and history.

From Prusak's experiences with a wide range of KM projects, he has identified three generic KM strategies that can help to guide any organization. However, organizational strategy needs to be situated in the context of three simple questions at the outset:

- Where is knowledge in an organization?
- What do you want to do with the knowledge identified?
- To what end?

Using these questions to frame an exploration into organizational knowledge, the following strategies are suggested (based on Prusak's KM experience).

**Knowledge Replication** – for example, the cookie-cutter approach to making computer chips taken by companies such as Intel, where production methods and operations are successfully replicated at any number of sites around the world.

**Knowledge Diffusion** – or leveraging existing knowledge; “if we knew what we knew, we’d be much better off”. The key here is to find ways to connect people and foster knowledge sharing within your organization.

**Knowledge Commercialization** – create knowledge products that have value for your "marketplace", e.g. by examining performance variation in work processes, as a basis for developing effective training programs.

The idea of a 'learning organization' is currently in vogue, although it is often poorly thought out. Prusak is of the opinion that the money in most traditional training budgets would “be better off given to charities”. Developing effective organizational learning requires awareness of revolutionary developments in cognitive science. An example is the use of coaching (or peer-to-peer learning) accomplished with story telling, in use at British Petroleum (BP).

Larry Prusak left us with two key points to ponder:

1) **How do we know what we know?**

Prusak believes that far too much is being made of “best practices” (the idea of capturing, transferring, and emulating what worked in a particular situation) which he describes as “fundamentally bull”. His point is important in considering how to evaluate KM efforts, a consideration that is very much on the minds of many workshop participants as they embark upon or continue to develop KM initiatives. Prusak presented an image of knowledge as "sticky" (i.e. codified) and "leaky" (i.e. personalized, people talking to peers). He advocates an approach to evaluation that emphasizes the “value of interesting stories” in helping to determine how well an organization is faring on its knowledge management quest.

2) **"Knowledge is what groups of people know"**
Since it is just not possible to adequately capture the knowledge that people walk around with in their heads, Prusak advises “saving your money” instead of worrying too much about how to codify that kind of knowledge. Before crucial tacit knowledge walks out your organization’s door, you’re probably much smarter to ask why people are leaving in the first place. Then you have a chance to do something about organizational culture and the work environment if there are problems, and “try to keep them around”.

Concerning current interest in KM, Prusak identified two principle factors at work:

i) **Diffusion of knowledge globally** – In a world where capital chases cheap labour, countries like Ireland, India and Malaysia are interesting as they have recently made the transition from largely agricultural societies to “information technology powerhouses”. The importance of “knowledge” is also seen in the fact that some 28% of GDP in the U.S. is now represented by activity in the “persuasion” industries (e.g. marketing, public relations, entertainment, etc.).

ii) **The unintended consequences of the IT revolution** – Value today is in the “knowledge stuff” (e.g. creativity, persuasion, etc.) as opposed to simple access to information, which challenges us to “get past the commodity stage to the next level”. The growth of the service economy globally is an indicator of this trend. Ireland provides a truly amazing story to illustrate the point, as an example of the effectiveness of investing in knowledge infrastructure and education given a solid foundation to start with based on a culture that is not only literate, but literary as well.

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**Resources:**

Larry Prusak’s Biography – see Appendix


Knowledge Sharing at the World Bank (Stephen DENNING)

"Rather than focusing the effort on building a knowledge base, it is much more important to build communities of practitioners (both within the Bank and externally) to effectively tap expertise and make it available" - Stephen Denning

Synopsis:

Stephen Denning characterized the World Bank’s Knowledge Management quest as a journey that is far from complete, despite establishing the KM effort back in 1996 and an investment of $50 million. The Bank’s KM work is closely tied to its mission “to fight poverty with passion and professionalism for lasting results”.

Based on reflection, learning and feedback, the Bank has decided to put aside the phrase Knowledge Management in favour of ‘knowledge sharing’. This term resonates more closely with the Bank’s mission and doesn’t treat knowledge as a product.

Conceptualizing efforts to manage knowledge are rendered even more powerful by telling stories that illustrate effective knowledge sharing. For example, during the Fall of 1998, the following question came up in Madagascar during the course of the Banks’ Tax Policy and Administration thematic group’s work on public expenditure review: Should VAT (value-added tax) be applied to medicines? Denning explained that in the past the attitude was “we’ll get back to you”, as the question was processed centrally at the Bank’s headquarters. This time, by consulting among various members of the thematic group located around the world, the community of practice with expertise in this area made a decision within 72 hours to exempt medicine from the tax.

This story serves to illustrate an important lesson the Bank has learned in refining its knowledge sharing strategy and evolving as a knowledge organization. Rather than focusing the effort on building a knowledge base, it is much more important to build communities of practitioners (both within the Bank and externally) to effectively tap expertise and make it available.

Denning enumerated seven basics of knowledge management to drive an organization’s knowledge management programme, which serve as useful guidelines based on the Bank’s experience:

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1 See, for example, World Bank. World Development Report 1998/99: Knowledge for Development and Stephen Denning’s “What is Knowledge Management?”
Strategy - in the Bank's case, the objective is to "get rid of our knowledge, not retain it". Knowledge sharing is considered strategic in redefining the Bank's business and not simply operational (a better way of doing things) by concentrating on speed, quality, innovation, widening the client base, and capacity building. Strategic focus is guided by these questions: What knowledge is being shared? With whom? How? and Why?

Organization - investing in over 100 thematic groups (communities of practice) as key instruments for sharing.

Budget - 3% of the total budget of $1.5 billion is devoted to knowledge management.

Incentives - on-going personnel evaluation needs to reflect the value of knowledge sharing.

Community - knowledge-based communities of practice require support to be effective.

Technology - most important are technologies that enable the sharing of tacit knowledge (e.g. face-to face meetings, telephone, video conferencing) and support thematic groups. Opportunities for collaboration via the web offer enormous potential for effective use of technology.

Measurement - Anecdotal information, while important, is not sufficient in tracking organization change. A system is required to track inputs and activities against outputs and outcomes. The difficulty is in establishing causality to illustrate impact.

Once the seven basic components of a knowledge sharing strategy are in place, second generation issues can then be addressed. The most important of these is the shift in organizational culture required. Denning sees the Bank at the half-way point in moving from a vertical to a horizontal organization conducive to sharing experience.

This is a process that takes time and needs to be carefully nurtured. Progress is evident in the move away from an initial focus on information technology and a "knowledge base" to investing resources and attention on networks of people organized as thematic groups.

Discussion:

Q: You touched on the shades of grey that distinguish an engineering as opposed to an ecological approach to knowledge management, especially as concern the thematic groups ... how much of a problem is middle management and doing things the "old way"?

A: The value of informal communities of practice to an organization should not be underestimated. These are the sources of important issues coming from practitioners (and not managers), and so organizations need to "plug into this energy" by providing funding and recognition, so that a link to the organization can be established. Some structure is needed to do this, but it is crucial not to stifle these groups with layers of middle management. Passion is required to foster these essential communities of practice. These are
characteristics of an ecological (vs. an engineering) approach where knowledge is treated as a fluid activity and not a commodity, and interaction and sharing are valued.

Q: Could you elaborate on how the thematic groups are funded?

A: We invest in three primary areas:
   . building a collection of what we’ve learned
   . building communities (via websites); i.e. focussing on “social capital”
   . building ad hoc advice.

Strategies regarding codification/personalization vary as some groups put more money and effort into meeting instead of documentation. Information technology is kept completely separate.

We’ve had more success connecting than codifying, although both are required. Once the thematic groups are functioning, we can concentrate more effort on collection and sharing the knowledge. So it is a question of both connecting and codifying, instead of choosing one over the other. Some 3% of our overall budget (approx. $50 million) is devoted to the knowledge sharing effort.
Resources:

Stephen Denning’s Biography – see Appendix

Literature:


DEFINING THE KNOWLEDGE STRATEGY
Development Business Model Archetypes (Lyle MAKOSKY)

It can be useful to describe an international development organization can be described in terms of the information and knowledge oriented transactions/activities that are embedded in and define its ‘Business Model’, i.e., ‘where and how’ knowledge is used in the business model. A simple and useful approach to portray this is to create an inputs/organization processes/outputs model:

- **Inputs** - to the knowledge-based sources/supply that provide the inputs and can be defined by ‘who’ provides and ‘what knowledge’ they provide.
- **Organizational processes** - the critical end-to-end processes that generate the key outputs of the organization and can be defined as the key business/service lines, and pictured as a flow of connected activities (see diagram).
- **Outputs** - the products/services/deliverables that make up the key outputs and can be externally directed at clients, partners and external stakeholders or internally directed at the organization’s own internal clients/stakeholders.

While every organization will have particular qualities, there are probably three general types of models: bilateral, multilateral, and foundation.

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**International Development Business Model Archetypes**

![Diagram showing the flow of inputs, organizational processes, and outputs in a business model, with connections to clients and partners.](image)

Information and knowledge oriented transactions / activities that define the Business Model, i.e., ‘where and how’ knowledge is used in the business model.

- Bilateral model
- Multilateral model
- Foundation model
The most important organizational processes can be defined as the key business or service lines of the organization. These are the external and internal oriented business line services that produce the key external and internal outputs (products, services, deliverables) which define the business model (why it exists and how it will operate to produce results).

There are four archetype business/service lines.

- External Business Line
- Research/R&D line
- Internal Strategy and Policy Development Line
- Internal Administration (often split into a ‘Governance’ Line and ‘Support Services’ Line)

**Key (knowledge oriented) Business/Service Line Tracks**

1. *Core external business Line* - the Core Business Line(s) that develops and delivers the organization’s key outputs/products/services which meet client/stakeholder needs/expectations, and delivers the value to them [1-3 per organization]
2. *Core Research/R&D Line* - Core Business Line that engages the necessary Research/R&D to inform the service development of the organization and can be a core external business line as well [1 per organization]
3. *Internal Strategy and Policy Development Line* - the core process that develops the strategic direction of the organization, drawing upon both external and internal inputs, and defines the necessary policy framework to guide strategy implementation and quality assurance [1 per organization]
4. *Internal Administration* - the core processes or functional areas used to manage the resources of the organization, often made up of ‘Governance’ and ‘Support services’ [1-3 per organization] Note: this area in many cases may be focused more on data and information management than knowledge management
When the key business/service lines are combined with the general international business model graphic, this pictorial flow results. What it suggests is that the inputs to the organizational process/business lines are provided by: feedback from the impact of the organizational outputs, and; the internally oriented outputs from the key business lines. For example, the 'Strategy and Policy Development' line produces an external output that may consist of the organization’s public global policy and priorities. This business line also provides an internally oriented output that may be strategic guidance on where the organization will concentrate effort and why and which influences the direction of the core external business lines.
CIDA Business Model (Stuart SALTER)

“The key question in conducting an exercise of this nature is: Where in this picture does knowledge exist?” – Stuart Salter

Synopsis:

Stuart Salter provided a case study overview of a business model for a bilateral development organization, profiling the Canadian International Development Agency (CIDA). In providing an overview of how CIDA works, the organization’s complexity – 1200 staff, a budget of $2 billion, operating in over 100 countries – means the task of designing an accurate business model (see diagram) is a difficult one.

The objective of this exercise is to map a development organisation from the perspective of inputs, outputs and “knowledge transactions” using a model based on core business lines. This model is based on core business lines viewed from the perspective of inputs, outputs and “knowledge transactions”. Key observations of this process include the following:

• The model represents a typical “layering” of international development organisations.
• For most organisations, it is a challenge to keep the high-level policy and strategy function well connected with the other core business lines.
• Staff in different business lines often react to differing client bases.
• Core business lines can easily become individual “knowledge silos.”

The key question in conducting an exercise of this nature is: Where in this picture does knowledge exist?

Discussion:

Q: Where is the farmer from Sri Lanka in this picture? Do these knowledge management models treat poor people as a distraction? Where is the principal client of a development organization like CIDA? Who do you work for?

A: These questions speak to the issue of “institutional schizophrenia” and the balancing act required to respond to Sri Lankan farmers, NGOs, Canadian taxpayers, and the Government of Canada. It is important to recognize that development organizations are not homogenous, so that there are different interpretations of who is to be served within the organization itself.
KM Do’s and Don’ts (Louis de MERODE)

“It’s all about people ... ” – Louis de Merode

Guidelines on Setting Purpose:

Do 1: It’s All About People...

Since knowledge is in: people’s heads, communities, and objects in communities (e.g. books)

WHICH IS BETTER OFF?
- A company changing all its people?; or
- A company whose headquarters has just burned?

Do 2: Start With the End (Strategy) in Mind ...

Do 3: Understand Tacit Knowledge

Explicit Knowledge can be communicated (e.g. software instructions, blueprints)
- it can be put into words, pictures, sounds
- technology can be used to store and communicate it
Tacit Knowledge can't be put in words or symbols (e.g. riding a bike, carving a stone, leading a meeting, solving a problem)
- It's physical, emotional, intellectual
- To get it, you have to: Observe, try out, reflect, try again
- If knowledge is tacit, people acting and interacting are key.

**Do 4: Experiment**

- There is some knowledge that can be had only by trying, not just by collecting data.
- You can wait for others to try and learn from their own mistakes. But...
- You will never learn all that they did, and you will be the last to learn.
- Don't blame, learn. Try, fail, learn and try again.

**Do 5: Integrate KM with Other Initiatives**

Knowledge management is also about:
- process improvement, like Total Quality Management (TQM)
- importing best practices, also like TQM
- learning from experience, like the learning organization

Knowledge management can
- help correct some drawbacks of reengineering, process innovation

Therefore:
- Start where you are, with what you've got

**Don't 1: If You can't Talk About it, You Can't Manage It**

Some organizations think knowledge is too abstract and too academic. But, there is a difference between:
- Knowledge, information, data and documents.
  - They are not the same and are not managed the same way
- Tacit and explicit knowledge
  - They aren't shared the same way

And we know: It's about people, how they behave, how they relate and how they communicate.

So: Having conversations about what knowledge is, how it is shared and used is the only way to be good at it.
Don't 2: Measure Knowledge Directly

- Ultimately what you want is knowledge that leads to effective action, but:
  - You can't always trace effective action to knowledge, it's too tangled.
  - Sometimes useful knowledge doesn’t get used for lack of opportunity. Does that make it useless (e.g. oil industry and oil price scenarios)?

- Measure, but:
  - don’t use just numbers, also use stories.
  - measure as close as possible to outcomes as opposed to inputs.
  - don’t just follow statistics, reflect and evaluate.

Don't 3: Reward People for not Sharing

Most companies treat knowledge sharing as skipping school

Beware, if:
- you reward people based on their billing rate, their output, or
- you rank them, or have them compete with each other,

Then, They will bill, and they will compete, but they won’t share

Don't 4: Think You Can Have KM and Command and Control

Knowledge is where the action is:
• Where clients are
• Where the workshop or the factory floor or the cubicles is
• Where the lab or the conference is

If more decisions are made at the top than necessary:
• There is a divorce between knowledge and action
• Decisions are made with little knowledge
• Much knowledge goes unused

Don't 5: Stay Home

KM requires commitment and support

Resources:

Stuart Salter’s Biography – see Appendix
Louis de Merode’s Biography – see Appendix

KNOWLEDGE INVENTORY

Mapping Knowledge Assets (Lyle MAKOSKY)

To design a knowledge management strategy we need to know what the knowledge assets are for the organization (both current and desired), and which ones are important to the provision of knowledge needed to support and inform the key activities and overall processes of the business lines.

Knowledge assets refer to organizational resources that provide access to the required data and information and which supports the analysis of that data / information to produce the knowledge needed to:

i) reach critical decisions within the business model, and/or
ii) inform/contribute to a 'Knowledge Generating Activity'.

Knowledge assets include:

- existing facts, data, models, concepts, etc, or
- the accumulated experience of people, or
- someone’s insight or ability to problem solve, provide advice or create.

These assets can reside in people (expertise, leadership), data bases, information sources, organizational structures (teams, reporting relationships), business policy and practice (culture).

As we identify these assets we need to profile them (by qualities or descriptors) in a way that allows us to see patterns that we can use to design the model for our knowledge management strategy.

- Identify the assets available to the organization (internally and externally) which provide access to data/information, analysis, insight and advice, which are needed to produce the knowledge that informs the key business processes;

- Describe the qualities of these knowledge assets (what, where it is, who holds/accesses, how/often accessed), so that a KM Strategy can be designed to link related assets and best utilize their qualities.
Knowledge Asset Mapping - for a Key Business Line

We start by portraying a key business line, as a process of linked activities. For each activity we ask,

- what is the Knowledge Generating Activity (KGA)? i.e., what are we trying to produce in knowledge terms at this step? What is the knowledge output or value that results from this activity?

For each KGA, we identify,

- what do we most “need to know” to do this activity?

For each ‘need to know’, we list,

- what are the knowledge assets (KA) that we have and that will be used/accessed to answer the need to know?

For each knowledge asset, we outline the qualities,

- what is it? tangible (T) or intangible (IT)
- where is it? centrally located (C), i.e., typically in headquarters, or decentralized (DC), i.e., typically in field offices, or with partners, etc.
- who holds/accesses it? staff (S), partners (P) or suppliers (SU)
- how is it accessed? is it collected and hence codifiable (CO) or is it mainly available on a person-to-person basis (PP)
- how often is it accessed? frequently (F) or infrequently (IF)
- how critical is this asset responding to the ‘need-to-know’ (high, medium, low)

The asset qualities for a business line process can be tracked on a form:

**Knowledge Generating Activity (KGA)**

<table>
<thead>
<tr>
<th>Knowledge Generating Activity (KGA)</th>
<th>Knowledge Output / Value</th>
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</table>

1) Need to know

<table>
<thead>
<tr>
<th>Knowledge Assets (KA)</th>
<th>What</th>
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2) Need to know

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<th>How</th>
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</table>

**Dominant Picture for this Knowledge Generating Activity**

Codify or Person-to-Person

Centralised or Decentralised

Repeattble or Non-Repeattble

Critical? YES / NO
"Getting the combination of Need to Know and Knowledge Assets right in this phase leads to good choices and thus the best use of resources and an enhanced flow of new knowledge for development" – Chris Smart

In order to prepare for the Washington workshop and to advance initial KM explorations, the International Development Research Centre's (IDRC) Advisory Committee on Information Management (ACIM) held a facilitated working meeting to sketch a Knowledge Asset Map (KAM) for IDRC. In addition to ACIM members, participants included staff from the Programs Branch, Policy Planning Group, Evaluation Unit, Research Information Management Service, Web Coordinating Unit, and Management Information Services. While there was a natural inclination to drill down into the structure of Centre work, this tendency was resisted, as the purpose was to test the mapping method as a means to view the overall framework on which the Centre's knowledge-driven activities depend.

The major findings from this exercise are presented here. Admittedly, this was a 'quick and dirty' exercise. However, it is debatable if more time would alter the following macro level observations about what factors should guide the Centre's choice of knowledge management strategy.

The mapping exercise identified as the Centre's Core Business Line, Funding Research for Development. Other business lines include: publishing, public affairs, and Canadian Partnerships, but for the purpose of this first sketch these were considered subordinate. It is recognized that the title chosen for the Core Business Line masks a range of IDRC business traits: fostering, promoting, and monitoring activities. These are represented in the sequence of Knowledge Generating Activities that make up the Core Business Line.

The Centre's knowledge asset map reveals that the Centre needs and applies knowledge to make best choices for the allocation of program and operating resources (commitment to broad themes, assembling staff teams, allocating grant budgets, choosing research projects).

Knowledge Asset: The organizational resource (asset) that provides access to the required data and information and which supports the analysis of that data / information to produce the knowledge needed to:
   a) reach critical decisions within the business model, and/or
   b) inform/contribute to a 'Knowledge Generating Activity'.

Note: knowledge assets can be existing facts, data, models, concepts, etc, or the accumulated experience of people, or someone's insight or ability to problem solve, provide advice or create; and these assets can reside in people (expertise, leadership), data bases, information sources, organizational structures (teams, reporting relationships), business policy and practice (culture), etc.
Getting the combination of Need to Know and Knowledge Assets right leads to good choices and thus the best use of resources and an enhanced flow of new knowledge for development. When the Need to Know and Knowledge Assets are out of sync bad choices are made and resources misused resulting in a reduced flow of new knowledge for development.

### Sorted Knowledge Assets of One of IDRC's Core Business Lines

#### Funding Research for Development

<table>
<thead>
<tr>
<th>Decentralized Assets</th>
<th>Centralized Assets</th>
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<tbody>
<tr>
<td><strong>Staff (11)</strong></td>
<td><strong>Staff (22)</strong></td>
</tr>
<tr>
<td>- P0 experience and knowledge (6)*</td>
<td>- Corporate Strategy and Program Framework (7)</td>
</tr>
<tr>
<td>- Proposal*</td>
<td>- Current Awareness Service</td>
</tr>
<tr>
<td>- P0 staff files</td>
<td>- Prospects</td>
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<tr>
<td>- P0 field visits*</td>
<td>- Program of Work and Budget</td>
</tr>
<tr>
<td>- Project approval document (2)*</td>
<td>- IDRC overall capacity*</td>
</tr>
<tr>
<td>- Project monitoring*</td>
<td>- Corporate Program Statement</td>
</tr>
<tr>
<td>- Experience of administrative staff*</td>
<td>- Familiarity with research environment</td>
</tr>
<tr>
<td>- Research reports</td>
<td>- Experience/knowledge of evaluation unit</td>
</tr>
<tr>
<td>- Research from other organizations*</td>
<td>- IDRC past research results</td>
</tr>
<tr>
<td>- Searchable assets: network, databases, Web pages*</td>
<td>- IDRC professional staff</td>
</tr>
<tr>
<td></td>
<td>- Institutional Risk Assessment</td>
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<td></td>
<td>- Policy manual</td>
</tr>
<tr>
<td><strong>Suppliers (2)</strong></td>
<td><strong>Suppliers</strong></td>
</tr>
<tr>
<td>- Research from other organizations*</td>
<td>- Program statement based on prospects</td>
</tr>
<tr>
<td>- Searchable assets: network, databases, Web pages*</td>
<td>- Project approval document (2)*</td>
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<tr>
<td></td>
<td>- Project Completion Report (2)</td>
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<td>- Individual staff competencies</td>
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<td>- Trip reports</td>
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<tr>
<td></td>
<td>- Research from other organizations*</td>
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<td>- PCQR evaluation results</td>
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<td>- Various policy documents</td>
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<td>- Project monitoring*</td>
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<td>- Evaluation unit*</td>
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<th><strong>Clients</strong></th>
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<td>- IDRC reputation*</td>
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<th><strong>Intangible Assets</strong></th>
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<tr>
<td><strong>Staff (7)</strong></td>
<td><strong>Staff (6)</strong></td>
</tr>
<tr>
<td>- P0 experience and knowledge (6)*</td>
<td>- P0 experience and knowledge (6)*</td>
</tr>
<tr>
<td>- P.I Team</td>
<td>- Familiarity with research environment</td>
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<tr>
<td>- Senior management (2)</td>
<td>- Evaluation unit*</td>
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<tr>
<td>- Regional office advice</td>
<td>- IDRC overall capacity*</td>
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<tr>
<td>- Experience of administrative staff*</td>
<td>- Senior professional staff</td>
</tr>
<tr>
<td>- P0 field visits*</td>
<td>- IDRC Board (3)</td>
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<tr>
<td>- Project monitoring*</td>
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<th><strong>Intangible Assets</strong></th>
<th><strong>Intangible Assets</strong></th>
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<tr>
<td><strong>Partners (5)</strong></td>
<td><strong>Partners (2)</strong></td>
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<tr>
<td>- Final technical report</td>
<td>- Experience of network</td>
</tr>
<tr>
<td>- Other researcher outputs</td>
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<tr>
<td>- Searchable assets: network, databases, Web pages*</td>
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<tr>
<td>- Proposal*</td>
<td>- IDRC Board (3)</td>
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<td>- Project monitoring*</td>
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<td>- Experience of network</td>
</tr>
<tr>
<td>- Searchable assets: network, databases, Web pages*</td>
<td>- IDRC Board (3)</td>
</tr>
</tbody>
</table>

*Knowledge asset fits into more than one area and therefore appears on the table more than once.*
The Centre also needs and applies (as well as creates) knowledge to manage research results because its grant management practice requires close monitoring, close collegial interaction with Centre-funded researchers located as close to the research site as possible. The Need to Know issues are determined by the research context and the Centre’s Knowledge Assets expand to include the researchers, their institutions and the broader development setting at the national and regional levels.

The Centre’s Knowledge Asset Map suggests that for internal functions better knowledge management would provide stronger feedback loops:

- as input to the periodic writing and adjusting of the Corporate Strategy and Program Framework; and
- timely feedback to the grant making sequence (for supplemental grants and phase 2 grants).

The map also illuminates the concern for ‘closing the loop’ and the ‘knowledge pyramid’ (explained below) by drawing attention to the structural barrier between the Centre’s internal information and knowledge management for grant making, and the sharing and utilization of knowledge in the external, ‘policy making space’. This feature of the map also throws into relief questions of the Centre’s knowledge objectives and knowledge responsibility. In particular, it demands that attention be paid to the mechanisms and resources to better manage this knowledge-sharing interface.

Staff who participated in the mapping exercise identified 44 separate Knowledge Assets. Fourteen of these were identified more than once within the nine Knowledge Generating Activities that make up the map. Each Knowledge Asset was further examined for distinguishing qualities: whether tangible/intangible; centralized/decentralized; embodied in staff/partners; and, codified or available through person-to-person interaction. The need for criticality and frequency measures of a Knowledge Asset was postulated but not assessed in the time available.

Centre Knowledge Assets can be sorted into the three sub-groups: those where their value is linked to people, linked to documents, and linked to other functions and relationships.

People linked Knowledge Assets predominate

Program Officer experiences and knowledge occurs more than any other Knowledge Asset (8 out of the total of 44). Other human resource-related Knowledge Assets include: Senior professional staff, Senior Management, IDRC Board, individual staff competencies, experienced administrative staff, Regional Office advice, experience of Evaluation Unit (2). In all, 16 (36%) out of the total of 44 Knowledge Assets are linked to people. (See also * below)

---

*The Knowledge Asset Map lists 44 Knowledge Assets. The () indicates the number of separate times a knowledge asset was listed.
Clearly the data for IDRC reflect the observation of IBM's Larry Prusak and others that the challenge for most organization is to devise a KM strategy that enables people to be better knowledge workers.

Knowledge assets linked to Centre documents come second

Staff identified the following 16 Knowledge Assets (22 occurrences):

A KM strategy must also take account of a range of functional knowledge-based relationships. The following 12 Knowledge Assets fall into this category:

Experience of networks*, research from other organizations, selected external advice (2), experience of research contacts*, IDRC overall capacity*, IDRC reputation, familiarity with research environment*, researcher reaction, PO field visits*, Senior Management (project and field) visits*, informal staff interactions at IDRC*, researcher input.

* Arguably some of the knowledge assets have a strong human resource connection and if listed under the human resources section above would strengthen the point that people are the prime consideration for effective KM.

A particular challenge for IDRC: KM and the participation of, and impact on, recipients

The map seems to justify the Centre's increased concern for the gap between research results and utilization. The macro level picture shown for the Knowledge Generating Activities highlighted the barrier between the Centre's internal knowledge processes and the external policy-making space. At a more micro level, using the knowledge assets as indicators, it is apparent that the Centre's recipients/partners are under represented. Only two knowledge assets - researcher reaction and researcher input - could be said to indicate direct links to the research community in the developing countries. The picture is only slightly better if we include knowledge assets that have some link to the researcher's Experience of networks, IDRC past research results, Selected external advice, Experience of research contacts, IDRC Board, Research reports, Other researcher outputs, Final technical report, Project monitoring, Regional Office advice, Senior Management visits.

This suggests a larger KM challenge for IDRC - to maintain parity between the ability of IDRC and its partners to manage knowledge. Any IDRC investment in improved KM (practice, policies, technical support, and systems) must not make it harder for the developing country researchers to contribute to and benefit from KM.
A Knowledge Management Strategy for IDRC

The analysis of the Centre’s Knowledge Asset Map indicates that a knowledge management strategy must:

- *with respect to people* – provide a supportive environment to manage knowledge workers, that encourages and rewards knowledge sharing;
- *with respect to documents* – support links between IS/IT/IM and a knowledge management strategy to ensure that key documents can be collected, stored and readily accessed and searched;
- *with respect to functions and relationships* – make the best use of tangible knowledge and lower barriers to the use of intangible knowledge; make both centralized and decentralized knowledge available;
- *with respect to external partners* – ensure that recipients and partners can participate fully in knowledge-making and knowledge-sharing.

One other requirement, not drawn from the map, but of obvious importance:

- *with respect to costs* – minimise cost and permit phased investment in technology enhancements

A knowledge management strategy for IDRC must also address this question:

*If research for development generates knowledge that suggests a better way of doing things, why isn’t it used?*

Or in terms of current Centre metaphors:

*Closing the loop* would ensure that knowledge generated by research is used to make better policy, solve development problems, ensure human rights, franchise and empower the disadvantaged, etc.

*The knowledge pyramid* focuses on knowledge production and capture, asking how the collection and presentation of information is distilled into useable knowledge products that can be used to close the loop.
KNOWLEDGE STRATEGY DESIGN

The Knowledge Exchange Network at the Inter-American Development Bank (Jean-Pierre BÉGUIN)

"How to devise a KM system that will reflect the fundamental characteristics and culture of the institution?" – Jean-Pierre Béguin

Presentation:

Thanks to the sponsoring institutions for this event. I would like to thank especially the persons I have been in contact with in recent weeks, Lucie Lamoureux, Patrik Hunt and Lyle Makosky. The design of this Workshop is quite original, and Bellanet should be praised for taking this initiative. As Europeans views on Knowledge Management are somewhat different from those prevailing on this side of the Atlantic, I regard as positive the fact that Bellanet is considering the possibility of a similar Workshop in Europe later this year.

My partner in this whole endeavour, Julio Estrada, is currently on a mission. My colleagues Martin Chrisney and Luis Fierro are also here to participate in the discussions of this Workshop. I understand that our colleagues from Bellanet are going to put our basic document and proposal (as adopted) for the Bank’s Knowledge Exchange Network on the Bellanet KM web page.

3 PARTS OF THE PRESENTATION

1) Genesis of the Knowledge Exchange Network (KEN) concepts and programs in the IDB.
2) Strategy choices.
3) Ways and means.

1) Genesis of the KEN concepts and programs in the IDB

The genesis of the efforts leading to the creation of the Bank’s Knowledge Exchange Network are the following (specifics are provided in the basic document):

• Toronto Conference on Global Knowledge in June 1997.
• Investigation inside and outside the IDB (fall 1997 to fall 1998).
• Preparation basic internal document and proposal (fall 1998 to spring 1999).
• Adoption basic proposal by High Management (spring 1999).
• Constitution inter-departmental coordinating group, KENSTEER (summer 1999).
• Start of implementation (fall 1999 to date).
2) Strategy Choices

We looked at two basic criteria to determine strategy choices:

a) Is the Bank facing some basic issues that KEN concepts and programs could help solve?

Yes, but caveat: we had not received any mandate to carry out an evaluation of the Bank. Yet, some basic issues were obvious:

i) separation of technical families created by the reorganization of the operational area of the Bank in 1994 (regionalization – 3 operational departments);
ii) feeling of isolation in the Bank’s Country Offices, which play an especially important role;
iii) need to conserve the institutional memory once executives and staff members have retired or have been transferred to other areas of the Bank.

b) How to devise a KM system that will reflect the fundamental characteristics and culture of the institution?

In the IDB, the building of an institutional consensus among the 12 departments and four executive level offices of the organization is particularly important.

Therefore, a centralized, top-down approach is very unlikely to succeed in the Bank. It became clear at the meeting of the top inter-departmental committee (with the President and the EVP) that they wanted to approve the concepts and programs of KM, but preferred to maintain a decentralized approach; however, they also felt the need for some kind of permanent coordinating umbrella, which led to the creation of KENSTEER, the inter-departmental coordinating group for the Bank’s Knowledge Exchange Network, which includes representatives from all departments and other major offices of the Bank.

They also rejected the expression of “knowledge bank” and much preferred the expression of “Knowledge Exchange Network” as opposed to “Knowledge Management”.

3) Ways and Means

What are the roles of KENSTEER?

i) forum for discussion, with a public folder for its members;
ii) forum for the comparison of the KEN experiments in various departments; and
iii) forum for designing and launching special KEN programs which could have a bank-wide impact.

In this context, what are the main operational agents for knowledge exchange?

They are the Bank’s communities of practice, or professional networks.
There are two categories: some were in existence before the approval of the basic proposal, and others appeared since.

They can definitely contribute to the solution of the two basic issues mentioned before: the feeling of isolation between the technical families of the Bank, and the feeling of isolation of the Country Offices between themselves and with Headquarters.

What are the future prospects of KEN in the Bank?

There is a feeling in KENSTEER that the experiences of KEN in the Bank should now be taken to a higher level. This led at the end of 1999 to the hiring of the services of an individual consultant, who happened to be Louis de Merode, also participating in this Workshop. He has just completed his report, which has not yet been distributed to the members of KENSTEER. Yet it is already possible to anticipate...

What are the likely new points of focus in the evolving Knowledge Exchange Network?

a) involve Management to a greater degree;
b) give closer focus to the budgetary implications of the Knowledge Exchange Network;
c) encourage the further development and strengthening of the Bank's communities of practice;
d) and give special attention to the involvement of the Country Offices in KEN concepts and programs.

Resources:

Jean-Pierre Béguin’s Biography – see Appendix

Knowledge Strategy Selection at the World Bank (Stephen DENNING)

"The story plays a key role in conveying the value of effectively transferring knowledge"
– Stephen Denning

Synopsis:

Stephen Denning provided an interesting first-hand account of the development of the World Bank Knowledge Strategy. He recalled that back in 1996 it was difficult to get anyone at the Bank to listen to ideas about KM. After trying a variety of methods, (e.g. box and arrow charts, rational arguments, and dialogue) which proved ineffective, stories were finally found to be most successful.

As an example of the efficacy of a good story in persuading people, Denning presented an incident from June of 1995 when "a health worker in Kamara, Zambia, logged on to the Centre for Disease Control website in Atlanta and got the answer to a question on how to treat malaria". Of note are a few salient facts:

• this event occurred in 1995 and not some time in the future;
• Kamara is not the capital and so probably did not enjoy the best Internet connection available;
• Zambia is a poor country; and
• the World Bank was not involved.

The power of this story is its suggestion of what is possible and how things could be different. The story plays a key role in conveying the value of effectively transferring knowledge, which can then be put to good use.

The World Bank’s KM strategy is framed by the following considerations:

• What knowledge is being shared?
• With whom is it being shared?
• How is it being shared?
• Deciding at the top to share ...

This strategy is, in turn, founded on the Bank’s mission “to fight poverty, with passion and professionalism for lasting results”. It is crucial both internally (the Bank’s “business survival” depends on sharing knowledge) and externally (since lending alone cannot achieve poverty reduction, innovation and new actors are required). In this sense, the Bank views KM as strategic (redefining the business) and not simply operational (a better way of conducting existing business). Knowledge sharing is driven by the following factors: speed, quality, innovation, widening the client base, and capacity building.
The Bank’s knowledge sharing strategy has shifted focus from building a knowledge base to “knowledge communities”, which include a range of external partners in the health, transportation, agriculture, private, and education sectors. These communities of practice comprise over 100 thematic groups. One example is the Urban Services Thematic Group and the Cities without Slums initiative, a $50 million program to improve the lives of millions of slum dwellers by 2020.

The Bank has also recently developed a plan to create a global “gateway” to facilitate knowledge sharing, comprising information and discussion on development issues and methods within the context of the Comprehensive Development Framework (CDF). It also supports the development of specific knowledge strategies for countries, as well as knowledge indicators to track progress.

Guidelines:


Managing knowledge for development assistance: Special challenges

Like other organizations, international institutions and the development community enjoy an unprecedented opportunity to use new methods and technologies for knowledge management in order to get better and faster results on the ground. But for these organizations, the choices that have been created by the new technology have broader ramifications. They require decisions not only on the technical issues described above, but also on the larger principles that go to the heart of the development process.

History records many examples where the authentication of knowledge and the means of its dissemination have been used as tools for exclusion and control, rather than inclusion or human betterment. Now that new technology makes sharing potentially much easier and cheaper than ever before, it is vital that the tools be used in a spirit of inclusion, and for the public good. To achieve this, collaboration and openness need to become the dominant principles of operation, particularly in the area of international assistance. The issue has many facets, six of which are discussed here.

Fostering north-north knowledge flows: For collaboration and openness to become the modus operandi of development assistance organizations, stronger partnerships among the major players are needed. The World Development Indicators is a promising model, as are the partnerships emerging in various sectors such as environment (see Box 8) The international community thus needs to function as an efficient connector and facilitator to promote the creation and dissemination of knowledge to enhance global welfare.
Fostering north-south knowledge flows: International institutions should take particular care to orient knowledge-sharing programs to the needs and technological capabilities of users in developing countries. One aspect of this challenge concerns technical design. Systems must be geared toward users who have limited technical means, such as low speed modems and minimal computing capacity, so that their low-end technology does not become a barrier to access. The systems should use public rather than proprietary software where possible, and should provide other means of access for those with no computers. Finally, the imposition of user fees for access to knowledge bases should avoided where they risk becoming a barrier to access.

A second aspect concerns the authentication of content. Since human beings often fully trust only the knowledge that they themselves have helped create, development knowledge bases will reach their full potential only if practitioners in developing countries have an appropriate role in authenticating the know-how that is contained there. In the case of explicit know-how, participation in such authentication can be facilitated by opening up knowledge bases for comment and review, and by providing the means to register alternative viewpoints. Where knowledge remains tacit, there should be active participation from developing countries in all phases of knowledge creation — for example, in project design and in building new knowledge bases. A participatory process will make possible joint ownership and use of the knowledge.

Fostering south-north knowledge flows: Development assistance needs increasingly to be seen as not simply a process of financing physical facilities, such schools and cars, but also a process that is invigorated by people’s abundant ideas and inspirations. In this way, a culture can draw on its local know-how, including indigenous knowledge, which is then reinterpreted and developed in light of the most useful approaches from elsewhere. Knowledge systems in the international institutions need to be open and responsive to inflows from whatever source.

Fostering south-south knowledge flows: Developing countries often learn best from each other, since the real experts on development are often those who live the reality of the problems on a day-to-day basis. Programs such as those in EDI which link practitioners in developing countries through real or virtual conferences across national boundaries can greatly accelerate these high value knowledge flows, for example a course on Health Sector Reform and Sustainable Financing, bringing together 78 participants from 32 countries to explore crosscutting issues affecting health system development, or the Partnerships for Poverty program that has established an informal network of Latin American universities and research centers in eleven countries to identify, study, and share concrete cases of public/private partnerships to alleviate poverty, using EDI methodology.

Fostering free information flows: A prerequisite for knowledge sharing is freedom of information flows. To date, the Internet itself has been open and inclusive in spirit, although there are continuing efforts from various quarters to make inroads on that freedom. Some countries use prohibitive pricing to preclude access to the Web for much of their populations. There is a need for continued watchfulness to ensure that the Internet as a
whole remains an international and freely accessible public good, and that approaches to limit access under whatever guise – commercial priorities or moral values or national pride or linguistic predilections – are weighed against the enormous opportunity costs involved in interfering with the freedom of information flows.

Helping developing countries manage knowledge. The same logic that drives the international community to manage its knowledge applies with equal force in developing countries themselves. Ultimately they must establish their own knowledge-bases, authenticate them from their own experience, interpret what is meaningful from their own perspectives, and create a future that meets their own needs. As international institutions themselves learn how to share knowledge more effectively, they can and should help developing countries to understand what is at stake in terms of managing knowledge and to nurture similar capacities there. This will be a large-scale and long-term undertaking; international institutions and developing countries can make a start by establishing the appropriate facilitative institutions that can catalyze the process. (see box 10)

Resources:

Stephen Denning’s Biography – see Appendix

Literature:


KNOWLEDGE ACQUISITION & SHARING STRATEGY

Communities of Practice (Steve GLOVINSKY, Michael LITZ, Louis de MERODE, Catherine PIERCE, Adrian POPLAWSKI, Steve SONG)

"...a new organizational form is emerging that promises to complement existing structures and radically galvanize knowledge sharing, learning and change. It is called the community of practice."

- Wenger and Snyder, "Communities of Practice: The Organizational Frontier"

Synopsis:

Etienne Wenger is recognized as a leading thinker in the field of Knowledge Management, specializing in the theme of communities of practice. Wenger and co-author William Snyder explain this new organizational form as follows:

“In brief, they’re groups of people informally bound together by shared expertise and passion for a joint enterprise – engineers engaged in deep-water drilling, for example, consultants who specialize in strategic marketing, or frontline managers in charge of check processing at a large commercial bank. Some communities of practice meet regularly – for lunch on Thursdays, say. Others are connected primarily by e-mail networks. A community of practice may or may not have an explicit agenda on a given week and even if it does it may not follow the agenda closely. Inevitably, however, people in communities of practice share their experiences and knowledge in free-flowing, creative ways that foster new approaches to problems.”

Far from representing merely the next in a series of suspect management fads, communities of practice have emerged over the last several years as important elements in organizational strategies to improve performance and add value. CoPs do this by:

- driving strategy
- starting new lines of business
- solving problems quickly
- transferring best practices
- developing professional skills
- helping organizations recruit and retain talent. (Wenger and Snyder, 140-1)

In addition, Knowledge Management consultant Louis de Merode identifies a number of advantages to be gained from communities of practice:

- problem solving
- spreading good ideas
- avoiding mistakes
• producing innovation
• increasing individual competence
• helping to attract and retain good people
• developing strategic competencies
• breaking down organizational silos
• improving the quality of work life

The very nature of CoPs means that they are often at odds with traditional management culture and structures. Wenger and Snyder’s research indicates that communities of practice cannot be mandated by managers, since they are “organic, spontaneous, and informal ... and resistant to supervision and interference” (140). In this sense, CoPs represent a managerial paradox. They are different than formal work groups, project teams, and networks in that they informally organize themselves, set their own agendas, establish their own leadership, and members are self-selected. Indeed, the purpose of a Community of Practice is “to develop members’ capabilities” and “to build and exchange knowledge”, as opposed to delivering a product or service (formal work group), accomplishing a specific task (project team), and collecting and passing on business information (informal network) (142).

Good management of communities of practice is particularly challenging. While they can’t be mandated as such, CoPs do require careful cultivation. Managers should:

• identify potential Communities of Practice that will enhance strategic capabilities;
• provide the infrastructure to support Communities and enable them to apply their expertise effectively;
• use non-traditional methods to assess the value of the organization’s Communities of Practice. (144)

De Merode identifies several factors that determine the success of communities of practice:

• Clear, stimulating purpose
• Congenial, committed group
• Helpful behavioral norms, rules
• A good balance between organizationally-driven structure and freedom
• Active and capable leadership, both on content and process
• Supportive (or at least neutral) organizational incentives
• Technology adapted to group needs and wants
• Modest resources for community events, the “cybrary”, research assistance, etc.

Within the international development and foundation communities, a number of CoP initiatives are underway. These experiences provide a rich resource for the wider community to draw upon.
UNDP's SURF

The United Nations Development Programme has been nurturing a KM initiative (SURF - Sub-Regional Resource Facilities) based on the concept of communities of practice. SURF coordinator Steve Glovinsky explained that the SURF system mission is “to provide timely, high quality, substantive support to all UNDP Country Offices ... thereby strengthening UNDP’s position as a trusted partner of programme countries in overcoming development challenges”.

SURFs are located in ten cities scattered around the world and provide a number of services in support of their mission, including:

- Referrals and access to substantive programme-related information
- Technical support for programme identification, formulation, review
- Networking and information-sharing between staff and development partners
- Identification/documentation/dissemination of best practices in UNDP focus areas.

Each SURF is comprised of two professionals and two support staff, as it has been found that keeping them small and nimble is proving effective.

The SURF communities of practice have evolved according to UNDP development themes and activities (e.g. environment, information technology, governance, etc.), and are focused on “connection” as opposed to “collection”. This emphasis means that great importance is placed on networking to build contacts within a region. The organizational knowledge base is designed to support this strategy by being demand-driven (vs. supply) so as to respond to needs as they arise.

Perhaps the most interesting part of the SURF experiment is the development of a specific role for “facilitators”, who are being empowered with specific support such as training in facilitation strategy. These super-networkers act as valuable problem solvers in an increasingly decentralized organizational structure, working to synthesize and tailor knowledge to respond to unique situations.

Glovinsky noted that the importance of the SURF initiative is its value, not just to the UNDP, but potentially to the broader United Nations group of organizations.

The Benton Foundation

Since 1981, the Benton Foundation has worked to realize the social benefits made possible by the public interest use of communications. Through its own projects, the foundation seeks to shape the emerging communications environment in the public interest. Bridging the worlds of philanthropy, public policy and community action, Benton demonstrates and promotes the use of digital media to engage, equip and connect people to solve social problems.
Defining and Promoting Public Policies for New Media

Benton’s Policy Program seeks to promote equity, access and a diversity of voices. It researches and reports on communications technologies and practices, legislative and regulatory debates and industry trends. The foundation urges the nonprofit, government and corporate sectors to acknowledge their shared public responsibility and to apply their unique strengths to creating a communications environment that meets educational, civic and social needs.

With funding from the America Online, Ford, Joyce and John D. and Catherine T. MacArthur Foundations, the Carnegie Corporation and the Open Society Institute, the Policy Program raises the level of public awareness, understanding and engagement in communications policy issues, working to educate the public and decision makers about what’s at stake in the rapidly changing communications landscape. It popularizes regulatory issues; convenes diverse constituencies to forge alliances to shape the direction of new communications technologies; collaborates with academicians and policy researchers to inform the policy process; chronicles and supports public service media; and equips public interest advocates to affect regulation and inform lawmaking. Projects include:

**Digital Divide Network**, an online resource center that helps individuals and organizations bridge the “digital divide” in their communities with tools, resources and models. Network partnerships include by AOL, Bell Atlantic, BellSouth, Ford Foundation, Gateway, Intel, iVillage, Microsoft, SBC and USWest.

**What’s Going On**, a series of special reports that map the telecommunications policies, practices and principles in key arenas where public interest services are being contested: in schools, libraries, health care, low-income communities and public broadcasting.

**The Digital Beat**, a free online news service that includes a daily digest of communications-related news; original research and analysis covered in a biweekly e-newsletter; and an editorial service to accommodate progressive voices on important issues of the day.

**The Future of Television**, a commitment to promoting the recommendations of the Advisory Committee on Public Interest Obligations of Digital Television Broadcasters through public education, sound research, constituency building and advocacy before the FCC. The Benton Foundation is the legatee of the Advisory Committee.

**Helping Nonprofit Organizations Use New Media**

The **Capacity Building Program** mobilizes networks of practitioners and trainers to build the capacity of nonprofit organizations to use the Internet. Facilitating these networks to share lessons, as well as resources and training methods, Benton culls “best practices” and “lessons learned” to support the effective use of online communications by the nonprofit sector. In some instances, it offers financial and technical support to nonprofits to advance their use of critical communications tools.
Open Studio: The Arts Online is a national initiative that empowers the nonprofit arts community to create new online content and reach new audiences. This partnership with the National Endowment for the Arts, with support from AT&T Foundation, The Ford Foundation and Microsoft Corporation, funds and links 18 training centers across the country, from a community college in Hawaii to a community arts center in Birmingham, Alabama. Open Studio’s e-magazine, Digital Canvas, has extracted and exported lessons from the network of grantees in two special reports, one on issues of Web site accessibility and the other on fundraising for technology projects.

Other Communities:

• Communications Policy and Practice  
  www.benton.org/cpp

• Connect for Kids  
  www.connectforkids.org

• Debate America  
  www.debateamerica.org

• Digital Divide Network  
  www.digitaldividenetwork.org

• Soundpartners for Community Health  
  www.soundpartners.org

• Technology Affinity Group (TAG)  
  www.tagtech.org

• Oneworld US  
  www.oneworld.net

Lessons learned:

• Building a network is labor intensive  
• Use multiple media  
• Leverage existing networks - cooperation, not competition  
• Overcome the granter/grantee barrier by trust and a frank exchange of ideas - act on feedback  
• Tailor your ancillary knowledge products to multiple audiences
Canadian International Development Agency (CIDA)

CIDA's experience in developing communities of practice is perhaps typical of many development organizations. Adrian Poplawski, Team Leader of the CIDA Phoenix Project, provided an overview of the challenges the organization faces in the evolution of its Knowledge Management tools. The CIDA strategy involves "moving from the general (organizational intranet) to the specific (extranets, combined gateway/extranets)."

Lessons learned in building the intranet included the need to:

- provide focused, relevant content;
- build in good design and search functionality;
- ensure responsiveness (demand vs. supply driven);
- ensure usefulness to field staff (vs. just headquarters);
- provide facilitation and support (e.g. for content management).

These lessons helped to inform extranet development involving communication with strategic partners and field offices.

The goal is to stimulate discussion and participation across CIDA's constituent communities. Knowledge is then harvested by editors supported by appropriate technology, so that it can be disseminated within extranet communities, the Agency itself, and more broadly amongst the development community.

UNDG's DEVLINK

Catherine Pierce reported on the progress of DevLink, which is the extranet of the United Nations Development Group (UNDG). Its purpose is to enhance the access of UN field offices to the knowledge and experience of the UN system in building country capacity. DevLink is rooted in the context of UN reform, which emphasizes enhanced collaboration among UN organizations. The UN has launched two key frameworks – the Common Country Assessment (CCA) and the UN Development Assistance Framework (UNDAF) – that are collaboration exercises between UN and member countries.

Process

1) The executive heads of the UNDG organizations endorsed the concept of DevLink as a knowledge tool that would enhance informed collaboration. There was very positive response from Resident Coordinators that DevLink would meet their needs.

2) Various models were discussed with various levels of the UNDG in order to achieve consensus and endorsement of the specific features of the extranet.
3) A Request for Proposal was formulated, bids reviewed, and a contract will be awarded shortly.

Concerns

- To select a model of “do-able” proportions at this stage, but that could be “scaled-up” and built on success;
- Limited financial resources;
- Access of field offices.

Product

DevLink is a “Knowledge Network”, characterized by value-added services (e.g. use of moderated discussion groups). Initially, it will focus on four topics of key interest to UNDG:

- poverty reduction
- human rights
- gender equality
- girls’ education.

DevLink will be linked to other UN sites virtually and will include other resources relevant to UNDG work.

World Bank

The World Bank has focussed on Communities of Practice as the key component of its knowledge sharing strategy. Some 130 thematic groups are now recognized and supported across the organization. Stephen Denning, Director - Knowledge Management, identifies the following factors as critical in fostering Communities of Practice (Denning, 49-50):

- Funding - 1.5% of the administrative budget;
- Strategy - organizational support at the operational (Knowledge Management to improve the way business is done) or strategic (Knowledge Management to redefine the business) levels;
- Community - support and enable communities to decide what works best for their knowledge-sharing needs;
- Technology - the Bank is creating task team work spaces to facilitate member sharing, access to knowledge resources, discussion space, contacts, and sharing with external clients;
- Culture - a shift from vertical to horizontal, where experiences are shared and clients and partners are included;
- Quality Checks - e.g. a second opinion on content submitted to the knowledge base, a date stamp on corroborating evidence, an auto-expiring system to ensure fresh information;
• Partnership - part of a strategy to assemble the world's best expertise, whereby knowledge communities spontaneously reach out to outside partners (e.g. the Bank's plan for a "Global Development Gateway").

• Measurement - using qualitative means to measure intangibles such as impact, based on judgement concerning what creates value.

Discussion & Guidelines:

UNDP SURF Co-ordinator Steve Glovinsky concluded his presentation by posing two questions:

1. What can be done to create a "state of readiness" for Communities of Practice?

2. What can be done to rationalize network proliferation?

Wenger and Snyder provide some useful guidelines for the seeding and sustainability of Communities of Practice (144-5):

• Identifying Potential Communities - All of the organizational examples cited here (UNDP, Benton, CIDA, World Bank) illustrate the importance of not attempting to create communities of practice in a vacuum. Already existing, informal networks of able and passionate people are likely candidates for CoPs, and only require identification and support.

• Providing the Infrastructure - Since communities of practice lack the budgets and legitimacy of established departments, they require integration within the organization and support (e.g. funding, official sponsorship, senior management support, and other resources). UNDP and the World Bank have explicitly created and funded positions for knowledge managers or facilitators.

• People First - As was evident from Steve Song's (Bellanet) presentation, relegating technology to a supporting role in order to focus investment on people's skills (e.g. facilitation strategies for virtual collaboration) in managing the knowledge environment is crucial. Such investment in training programs and people vis-à-vis communities of practice needs to be reflected in personal evaluation systems, although true participation is really dependent on "the intrinsic benefits of community membership: the opportunities to solve problems, develop new ideas, and build relationships with peers who share a common passion" (145).

• Using Non-traditional Methods to Measure Value - The value of a community is difficult to understand for many people, let alone measure, since effects are delayed and results are often not apparently linked to the Communities themselves. Wenger and Snyder posit that the solution is to "gather anecdotal evidence systematically" (145), a practice which has been adopted at the World Bank. This strategy can help to address the management challenge of delicately balancing the need that
Communities of Practice have to innovate freely while being able to demonstrate value in exchange for support.

Louis de Merode advocates a two-pronged approach combining measurement (e.g. via systematic story collection) and negotiation (to define parameters so that CoPs are aligned with corporate strategy).

Global Communities of Practice “Top Ten” list (Barbara Weaver Smith)

10. Provide a virtual discussion environment in an asynchronous, linear format, accessible through a web browser and password-protected for members of the CoP. Enable e-mail digests and reminders for those without free and easy Internet time.

9. Assign a “virtual discussion host/librarian” whose role is to encourage dialog, maintain a help function, provide “housekeeping” services for the space, write summaries, conduct research for the group, and help turn the emerging dialog into strategies and work projects.

8. Include a virtual café, water cooler, or pub in your environment and encourage participants to engage in small talk as well as business talk.

7. Link the discussion space to a password-protected web site and a means for each member to post papers, position statements, graphics, and photos.

6. Reward active participation in the virtual space with the opportunity for an occasional “real time, real space” gathering of the CoP. Lavish its members with praise, recognition, and leadership opportunities.

5. Communicate with and among CoP members THROUGH the CoP environment instead of via e-mail, fax, phone etc.—help them learn to work differently, not just harder!

4. As time and funds allow, give your virtual CoP members the best portable tools—laptop with video camera, net-meeting and video-conferencing access, instant messaging capability, and engage them actively with IT people to create and re-create the virtual environments that they need.

3. Provide training in collaboration strategies and group process as well as training in how to use the virtual environment. Use the Internet for this training and engage members in dialog about both process and tools.

2. Allow sufficient time for the CoP to congeal, for members to test it out, to get to know one another, and to find their own ways of working.

1. If possible, kick-off the virtual CoP environment with a face-to-face workshop, conference call, or video conference in which participants can design their new ways of working together.
Resources:

Steve Glovinsky's Biography – see Appendix
Louis de Merode's Biography – see Appendix
Steve Song's Biography – see Appendix

Literature:


Workshop PowerPoint presentations:

Steve Glovinsky’s “UNDP’s SURF System”:
http://www.bellanet.org/km/presentations/UNDPSURF-SG.ppt

Micheal Litz’s “Communities of Practice – Benton Foundation”:
http://www.bellanet.org/km/presentations/OpenStudio-ML.ppt?OIS=y;template=lists.htm

Louis de Merode's "Why Communities of Practice?":
http://www.bellanet.org/km/presentations/CoP-LDM.ppt

Steve Song’s “Strategies for Virtual Collaboration”:
http://www.bellanet.org/km/presentations/ColabStrategies-SLS.ppt?OIS=y;template=lists.htm

Web sites:

Benton Foundation: http://www.benton.org/
UNDP SURF : http://www.undp.org/surf/
DEVELOPING ENABLING INFRASTRUCTURE
LEADERSHIP AND CULTURE

Maps, Models and Metaphors: Leadership for a Knowledge Culture
(Barbara WEAVER SMITH)

"I find that the best definitions of leadership today are 'ability to rise to the occasion', 'filling in the missing functions', and 'evolving or changing the culture as needed'. The most difficult of these tasks is evolving and changing culture, because it requires leaders not only to be able to perceive the culture of the organizations in which they are embedded but also to perceive what kinds of changes might be needed to improve the effectiveness of those organizations."

- Edgar Schein, "Focus On Your Corporate Culture!"

Synopsis:

One of the key Knowledge Management issues is the challenge of instilling an organizational culture that encourages knowledge sharing. Development of an infrastructure to foster a knowledge sharing work environment comes down to leadership and culture. In fact, based on the work of Edgar Schein, attention to culture is the distinguishing feature of leadership as opposed to management.

Barbara Weaver Smith (President of Smith Weaver Smith, Inc., “Cultural Changemakers”) believes in the premise that “... mission-based organizations are uniquely suited to a culture of knowledge sharing and are uniquely responsible for working towards that culture—both within their organizations and in the broad field of cultural development in which they exert influence”.

By examining the mission statements of a few of the international development organizations present at the workshop (CIDA, USAID, World Bank and UNFPA), Smith provides a useful entry point to the process of leading cultural change.

As an example, the Canadian International Development Agency’s mission statement (http://www.acdi-cida.gc.ca/agency-e.htm) uses phrases such as “development is an enormous global effort” ... “a complex, long-term process” ... “the objective is to work with developing countries ... to develop the tools to eventually meet their own needs”. The sense conveyed is one of explaining the organization in terms of what it wants to be.

In the case of the US Agency for International Development, the focus is on sustainable development results that the organization wants to achieve (http://www.info.usaid.gov/pubs/strat_plan). This message comes across in language that lists specific objectives such as “implementation of open, market-oriented economic policies
and institutions” ... “open and accessible political institutions” ... “full participation of women and disadvantaged groups”.

The World Bank (http://www.worldbank.org/html/extdr/about/mission.htm) has adopted a different style in emphasizing the people responsible for delivering on their mission, by using phrases such as “to fight poverty with passion and professionalism” ... “sharing knowledge” ... “to attract, excite and nurture diverse and committed staff with exceptional skills” ... “inspired and innovative”. The thrust is on the kind of people needed to advance the Bank’s knowledge sharing strategy and there is an explicit concern with attracting and retaining certain kinds of employees.

For the United Nations Population Fund (http://www.unfpa.org/about/unfpa.htm), the focus is on creating awareness and leveraging access to knowledge management (e.g. “raises awareness of [population] issues” ... “strategies to enable capacity building” ... “to promote awareness”).

What is useful in conducting this simple exercise in mission statement content analysis is the opportunity it affords to explore the dissonance (or gap) between organizational culture and the expression of its stated mission. Organizations are typically not amenable to change, despite the increasingly constant pressure to adapt to an ever more complex world.

It is also important to distinguish between organizational “climate” (how employees get along, working hours, extent of after-work socializing, etc.) and “culture”. Culture is a much deeper concept that includes assumptions about order and control, rules and responsibility, changing behaviour, etc. While people working within these organizations have a “need to act”, in order to accomplish their objectives, organizational change involves the acceleration of this need to act, so that value is produced. True organizational change requires people situated throughout the organization working together. Attention needs to be paid to the participation of front-line workers (including field staff and program officers) in the effort instead of simply relying on the viewpoint of senior management. Those who interact most closely with the client have an invaluable perspective to share.

Knowledge mapping techniques offer a useful starting point for a KM effort and can be employed by leaders at all levels of the organization. An organizational chart is not a knowledge map, but it can be a useful starting point. The department or division leader can begin by mapping the flow of knowledge into his or her area of responsibility, noting value that is added, as well as how departmental knowledge is passed along to other departments. Paying particular attention to “boundary objects” (forms, reports, transactions) that flow from one department to the next is important.

Smith offered several examples of knowledge maps:

- Valdis Krebs uses knowledge maps to illustrate the flow of knowledge throughout a large organization. (http://www.orgnet.com/xray.html)
SWS associate Denham Grey created a knowledge map to explain the value of a Community of Practice. (http://www.smithweaversmith.com/collabor.htm)

Organizational "yellow pages" map the knowledge and expertise of individuals. The consulting firm Entovation created a global map of knowledge management thought leaders. (http://www.entovation.com/kleadmap/index.htm)

Denham Grey maintains a personal knowledge map that serves two purposes: it indexes his Internet resources on knowledge management, and shares his expertise with others. A wealth of KM resources is available here. (http://www.voght.com/cgi-bin/pywiki?DenhamGrey)

From knowledge maps, one can begin to enlist work groups or teams in creating new models to improve knowledge flow, knowledge sharing, and the fulfillment of mission and goals.

Expertly facilitated collaborative group processes enable organizations to learn how to quickly create, test, refine, and implement models. Leaders need to attend to the physical and virtual environments that are conducive to collaborative modeling. While senior leadership can provide vision and keep the mission statement foremost in people's attention, a knowledge management program needs buy-in and alignment among the staff. Involving them in creating and testing knowledge-flow models is essential to accelerating innovation through a knowledge-sharing culture.
Smith presented specific examples of productive modeling environments:

- SWS associates Bryan Coffman and Jay Smethurst illustrate flexible work environments that enable teams to move quickly from studio to stage. (http://www.senteco.com/spaceoverview.htm)
- Within the SWS group, a “virtual” (web-based) environment substitutes for physical space. (http://discussions.wellengaged.com/we/smithweaver/COMMUNITY)

Guidelines:

Smith recommends that leaders consider the following issues in designing a knowledge management strategy:

1. Revisit the organizational mission statement, locating existing metaphors for “knowledge management.”

2. Map the knowledge terrain— from your immediate vicinity and outward to the larger organization and its constituents— identifying opportunities to improve the flow of knowledge and the connections among people who can productively share more knowledge.

3. Use the insights from knowledge maps as a starting point for the collaborative development of new models of organizational culture and knowledge sharing.

It is entirely possible for an organization to manage, purposefully, the cultural changes that are required for greater knowledge sharing and innovation. Relating knowledge management to organizational mission is a powerful means of gaining leadership buy-in; however, leaders at all levels of the organization can begin by mapping their knowledge terrain and engaging their teams in developing collaborative models for knowledge work.
Resources:

Barbara Weaver Smith’s Biography – see Appendix


THREE BIG THINKERS WHO TALK STRAIGHT

http://www.theatlantic.com/politics/ecbig/soctrans.htm

http://www.managementgeneral.com/3-now/99-now/129904es.htm

http://www.vernaallee.com/ Verna Allee, author The Knowledge Evolution: Expanding Organizational Intelligence - articles, sale of book, international benchmarking survey and information

ONLINE GUIDES TO KNOWLEDGE MANAGEMENT AND CULTURE

http://www.voght.com/cgi-bin/pywiki?DenhamGrey Denham Grey maintains a continually updated collection of links to all facets of the knowledge management community

http://www.entovation.com/ David Skyrme and Debra Avidon maintain a very useful international website on knowledge and culture.

http://www.cio.com/forums/leadership/ CIO’s website is a rich resource—special forums integrate information technology, knowledge management, and leadership perspectives.

VIRTUAL DISCUSSIONS


http://discussions.wellengaged.com/we/smithweaver/COMMUNITY The SWS public discussion space for Talking Culture, Talking Knowledge and the OD CyberCafe
Technology for Knowledge Management (Alison SESTINA, Hugh GRAHAM, Barbara WEAVER SMITH, Steve SONG)

"... the best collaboration technology only aspires to the effectiveness of face-to-face communication" – Steve Song, Bellanet

Synopsis:

As is the case with various other elements of the knowledge management equation, the determination of an organization's overall KM strategy will provide guidance for the implementation of appropriate technology. Hansen, Nohria, and Tierney present a valuable model to help guide thinking about managing organizational knowledge, by distinguishing between "codification" versus "personalization" strategies. This dichotomy is useful in informing the critical decisions required to ensure the right technological mix.

Codification focuses primarily on computer use, whereby "knowledge is carefully coded and stored in databases" (Hansen, Nohria, and Tierney, 107) for easy access. By contrast, the personalization KM strategy makes use of computers "to help people communicate knowledge, not to store it" (ibid.). The emphasis is on knowledge sharing via direct person-to-person contacts.

How Much Information Technology is Needed?

<table>
<thead>
<tr>
<th>KM Strategy</th>
<th>CODIFICATION</th>
<th>PERSONALIZATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal:</td>
<td>- to connect people with reusable, codified knowledge</td>
<td>- to facilitate conversation and the exchange of tacit knowledge</td>
</tr>
<tr>
<td>Characteristics:</td>
<td>- heavy IT support; - significant investment in large, sophisticated electronic repository systems (e.g. proprietary search engines, &quot;elite&quot; databases, etc.)</td>
<td>- moderate IT support; - modest investment in an electronic document system to: 1) provide background material, and 2) point people to experts who can provide further advice - communication tools (e-mail &amp; electronic discussion fora)</td>
</tr>
<tr>
<td>System:</td>
<td>- &quot;traditional library&quot; (a large cache of documents made accessible with powerful, precision search engines)</td>
<td>- allows people to find and communicate with others</td>
</tr>
</tbody>
</table>
Technology Options

While technology issues can be categorized in many different ways, the codification vs. collaboration paradigm also provides a particularly useful structure for understanding current trends in information technology. For globally distributed organizations (i.e. most international development organizations) that rely on the Internet as a medium for the sharing of knowledge, the issue of bandwidth is fundamental. At this point in the evolution of the Internet bandwidth is a chief constraining factor for many applications.

KM Technologies: What is it?

Collaboration Technology

When we want to collaborate with a group of people, our first preference is usually to meet them all in a face-to-face meeting. However, geography, time zones, busy schedules (to name a few issues) can all contribute to making some face-to-face meetings impractical, if not impossible. Collaboration technologies have evolved as an attempt to circumvent some of these problems. While they have succeeded in overcoming issues of geography, time zones, and sometimes even busy schedules, it is important to recognize that the best collaboration technology only aspires to the effectiveness of face-to-face communication.

Collaboration technology consists of tools that support communication between more than two people, falling into two broad categories: synchronous and asynchronous. Synchronous tools help people to collaborate in real time (e.g. telephone, Internet meetings), while asynchronous tools allow people to participate at their convenience (e.g. e-mail, intranet).
Another important distinction to make is that of “push” vs. “pull” technologies. Push technology places information in a place where it is difficult to avoid seeing it. E-mail is a classic example of a push technology. Pull technologies require you to take specific actions to go and retrieve information. The World Wide Web is a good example of a pull technology. An electronic mailing list that uses the push technology of e-mail is extremely powerful as a collaborative tool because it requires little learning or behaviour change on the part of the user. In spite of its relative simplicity when compared to sophisticated Web-based collaborative fora, electronic mailing lists are the most popular collaborative tool.

**Synchronous Collaboration**

**Teleconferencing**
In use extensively by senior management and staff, conference telephone calls represent an effective (if relatively expensive) collaboration technology.

*Advantages:* personal, immediate feedback  
*Disadvantages:* expensive, often doesn’t work well across time zones

**Computer Video/Tele-conferencing**
Computer-based teleconferencing and videoconferencing is a rapidly evolving technology that has tremendous potential for distributed organizations. However, it is highly dependent on communication bandwidth. Increasing Internet bandwidth to regional offices or choosing an alternative communication medium such as ISDN (Integrated Services Digital Network) could make this a practical synchronous collaboration tool. This technology decision needs to be evaluated in the context of an organization’s overall requirement for bandwidth and current expenditures on teleconferencing.

**Online Chat Fora**
Online chat tools deserve a brief mention as a collaboration tool. They allow multiple users to communicate simultaneously by typing messages on a computer screen. As they are typed, users’ messages appear in a common environment on the screen. This is an impractical tool for complex discussion but perhaps has some potential application as a tool for gaining rapid feedback on an issue or for online voting.

**Asynchronous Collaboration**

**Electronic Mailing Lists**
Lists have been in use for a number of years and represent an extremely cost effective collaboration technology.

*Advantages:* cheap, no time zone issues, ubiquitous, works over any speed of connection, push technology
Disadvantages: limited communication medium, can be slow as a feedback mechanism, can be difficult to focus discussions

Web-based Discussion Fora
There are a number of different online discussion forum applications in use.

Advantages: same as electronic mailing lists except requires slightly faster Internet connection, a more structured discussion environment than a mailing list
Disadvantages: lack of culture of using the Web as a collaboration forum, slow for some regionally-based users

Lotus Notes
While there are a large number of collaboration technologies on the market, one in particular deserves specific mention. Lotus Notes is a comprehensive collaboration tool that includes e-mail and groupware (a generic term referring to a range of collaboration technologies that help groups organize work). Notes can also function as a full-fledged web server, document management system and workflow application. It is currently in use as a collaboration environment by many large organizations such as the World Bank and the Canadian International Development Agency. Notes is recognized as the leader in comprehensive collaboration technology.

Advantages: Comprehensive collaborative solution employing state of the art technologies for communication, document management, and workflow.
Disadvantages: Expensive to deploy when compared with other collaboration technologies. While Lotus has followed the industry trend toward embracing open Internet standards for communication such as SMTP (Simple Mail Transfer Protocol), IMAP (Internet Message Access Protocol), and XML (Extensible Mark-up Language), Notes is still in many ways a closed environment which makes any future move to other applications very difficult.

Other Web-based Collaboration Tools
Several other Web-based applications compete with Lotus Notes in the collaboration marketplace, including Microsoft Exchange, Novell Groupwise, and a number of smaller programs. Since many of these applications often include full e-mail service, implementation invites consideration of organizational requirements with respect to collaborative technologies including e-mail.

Codification Technology
This category includes computer-based tools used to capture and share information.

Internet and Intranet Web Sites
Many organizations have now developed extensive public and private (Internet and intranet) web sites, which are flexible environments for communication and information storage. The flexible nature of a Web site is both its major strength and weakness. The strength derives from the fact that it allows for the storage of information in many different forms that can
be changed to suit the intended audience. The ease with which Web-based information can be produced means that everyone can contribute to a collective information resource. The problem is that without standards for the display, classification, and organization of information, the value of the resource diminishes and also becomes significantly more difficult to manage.

Project, Finance, and Human Resource Management Systems
Examples of these administrative applications include SAP (Systems, Applications, and Products in Data Processing) at CIDA and the World Bank, Oracle at IDRC and the World Bank, PeopleSoft at the Bank, etc. It is important to consider the scope for integration of such systems with other information resources and systems.

World Bank Technology Architecture

1 PeopleSoft produces enterprise application software for core business functions including human resources management, project management, treasury management, performance measurement, accounting and control, supply chain management, and industry-specific solutions. (http://www.peoplesoft.com/ - Glossary)

2 Extensible Mark-up Language

Electronic Document Management System (EDMS)
An EDMS represents a substantial undertaking for any organization. The World Bank provides a good example of the inherent opportunities and difficulties. The Bank employs a
state-of-the-art, XML-enabled Oracle data engine to drive a document management system linked to Lotus Notes groupware. In spite of the leading edge nature of this technology, it is impossible to get staff to consistently and correctly file documents. The Bank has employed a staff of 100 cataloguers internationally to see that information is correctly codified. By ensuring rigor in classification – through the use of controlled vocabulary – resource discovery is much more efficient, both in terms of searching and browsing.

With regard to building "knowledge bases" (comprehensive knowledge repositories), the overwhelming message from the World Bank is that this is a difficult, extremely labour-intensive process. After four years of investment in knowledge management, The Bank reports that they have had much more success with collaboration strategies than with codification.

While codifying knowledge is a fundamental activity of any knowledge-based organization, the cost of comprehensive codification technologies such as EDMS need to be evaluated in terms of a return on investment with respect to both technology and people.

Further Considerations

Extensible Mark-up Language (XML)
XML is an open Internet standard that has been widely adopted within the field of information technology to represent and exchange codified information. It offers significant potential for the integration of heterogeneous information resources, thus support for this standard will be an important consideration when making information technology investments. The World Bank considers XML a key ingredient in the ongoing development of its knowledge resources.

Also of note is the evolution of XML standards for particular communities of information users. For instance, in the international development field the IDML (International Development Mark-up Language) Initiative is an informal, multi-agency exploration of the potential of XML and related technologies for improved information sharing among development partners.

Bandwidth
Current trends point towards a steady decrease in the cost of Internet access. The rapid and pervasive spread of Internet communication coupled with the evolution of faster and cheaper technology is resulting in improved access to the Internet at lower costs. This trend has been slowest at manifesting itself in Africa. However, even there Internet access is spreading rapidly and is becoming much less expensive especially in capital cities.

Given the importance of collaboration and the creation of communities of practice as a method for knowledge sharing, it is worth investigating the costs of a significant increase in bandwidth for regional offices that could support:

- desktop video conferencing
- internet telephony
• improved access to information systems based at headquarters
• other collaborative tools
• access to more sophisticated information resources.

It may be worthwhile to compare the return on investment of increasing bandwidth to regional offices against investing in a large knowledge codification effort.

**KM Eras of Collaboration**

Source: Alison Sestina's "KM and Technology" Presentation

"Undernets"
This ingenious term refers to systems developed by "do-it-yourselfers" in the organization who strike out on their own to invent ways of working which often respond to needs that are not officially recognized. For example, many organizational intranets began this way well before senior management ever became aware of, recognized, sanctioned, and subsequently began using them. Most organizations tend to have at least a few undernets in development at any one time. They can represent valuable innovation for an organization. Of course, undernets can also be a threat to the integrity, security, and functioning of existing systems, as well as to the people responsible for them. Consequently, a delicate balance is required between fostering undernet innovation and creativity, and ensuring that they don't work to the detriment of existing organizational information systems.
Guidelines:

Information Technology for Knowledge Sharing Programs - Issues

- from Stephen Denning’s “What is Knowledge Management?”

Most of the technological tools now available tend to help dissemination of know-how, but offer less assistance for knowledge use. Tools that assist in knowledge creation are even less well developed, although collaborative workspaces offer promising opportunities, by enabling participation, across time and distance, in project design or knowledge-base development, so that those most knowledgeable about development problems — the people living them on a day-to-day basis — can actively contribute to their solutions. Some of the more user friendly technologies are the traditional ones — face-to-face discussions, the telephone, electronic mail, and paper-based tools such as flip charts. Among the issues that need to be considered in providing information technology for knowledge sharing programs are:

- **responsiveness to user needs**: continuous efforts must be made to ensure that the information technology in use meets the varied and changing needs of users.
- **content structure**: in large systems, classification and cataloguing become important so that items can be easily found and quickly retrieved.
- **content quality requirements**: standards for admitting new content into the system need to be established and met to ensure operational relevance and high value.
- **integration with existing systems**: since most knowledge sharing programs aim at embedding knowledge sharing in the work of staff as seamlessly as possible, it is key to integrate knowledge-related technology with preexisting technology choices.
- **scalability**: solutions that seem to work well in small groups (e.g. HTML web sites) may not be appropriate for extrapolation organization-wide or on a global basis.
- **hardware-software compatibility** is important to ensure that choices are made that are compatible with the bandwidth and computing capacity available to users.
- **synchronization of technology with the capabilities of users** is important so as to take full advantage of the potential of the tools, particularly where the technology skills of users differ widely.

Knowledge sharing programs that focus on the simultaneous improvement of the whole system, both technology tools and human practices, are likely to be more successful than programs that focus on one or the other.

An additional key consideration:

- **affordability** - or the ratio of the cost of the application to its usefulness to staff.
KM Implementation Recommendations (Alison Sestina, DMR):

- Ensure that your technology solution is:
  - Open and Distributed
  - Measurable
  - Customizable
  - Secure
- Connect Information Islands
- Conduct a Knowledge Survey
- Implement a Metaserver
- Knowledge Enable Collaborative Processes
- Wire Meetings
- Maintain the Enterprise Knowledge Base

Source: Alison Sestina's "KM and Technology" Presentation
Resources:

Alison Sestina’s Biography – see Appendix
Barbara Weaver Smith’s Biography – see Appendix
Steve Song’s Biography – see Appendix

Workshop presentations:

http://www.bellanet.org/km/index.cfm?fuseaction=MS_Agenda

Alison Sestina’s “KM and Technology”
Barbara Weaver Smith’s “Virtual Collaboration: Methods for Mission”
Steve Song’s “Strategies for Virtual Collaboration”

Literature:


Foundations for Knowledge Management - Strategic Analysis Report; Gartner Group. 7 April 1997. Blair; Fenn; Hunter; Bosik.

“Myths and Realities about KM”. November 22, 1999
http://www.informationweek.com/762/know.htm


Web sites:

IDML (International Development Mark-up Language) Initiative Web site
http://www.idmlinitiative.org/

Barbara Weaver Smith’s RECOMMENDED RESOURCES for COLLABORATION TECHNOLOGY AND METHODS

On the Smith Weaver Smith website (http://www.smithweaversmith.com):
Talking Culture, Talking Knowledge online journal
Knowledge Management Resource Database

Extensive Knowledge Management Link Repository
http://www.voght.com/cgi-bin/pywiki?DenhamGrey

“Online Community Toolkit”, by Nancy White, Full Circle Associates
Team Tune-Up Activities from Communica
http://www.comunica.com/tuneup.html#checklist

Best Free Collaboration Tools

http://www.egroups.com/ (powerful, free groupware suite)
http://www.intranets.com/ (free corporate intranet site)
http://www.webex.com (enable international meetings)

Discussion Groups on the Web

SWS Talking Culture, Talking Knowledge
http://discussions.wellengaged.com/we/smithweaver/COMMUNITY

E-Groups International Discussion on Intranets for Knowledge Management
http://www.egroups.com/group/intranet-km/info.html
KNOWLEDGE PROCESS STEWARDSHIP

Knowledge Management Stewardship (Louis de MERODE)

"... given the job's steep learning curve, CKO success ultimately depends on strong CEO support (especially when undergoing organizational change) and "slack", i.e. the time to think, talk, dream, and act" - Louis de Merode

Synopsis:

Organizational uniqueness means that there are as many approaches to the task of shepherding knowledge management strategy as there are distinct organizations. In turn, the relative novelty of the field of knowledge management has spawned a range of approaches to leadership, all dependent on organizational nature. Witness, for instance, the diversity of phrases that have been dreamed up as job titles for an organization's chief knowledge steward: Knowledge Coordinator, Director of Intellectual Assets, Knowledge Gardener, Knowledge Manager, Knowledge Broker, Knowledge Management Champion, Chief Knowledge Officer, Knowledge Facilitator, and Knowledge Shepherd.

This babble of job titles represents great diversity in philosophy underlying the responsibilities aligned with these positions. They also seem to indicate a creative confusion at work at this particular time in organizational history, as these kinds of jobs are constantly being invented and re-invented. The positions themselves exhibit divergent styles and methods based on underlying programs that are founded on different premises. While some of them may well be short-lived and are certainly not appropriate for all organizational cultures, it is instructive to examine the forces driving knowledge management to gain a greater understanding of KM stewardship.

Consultant Louis de Merode identifies three key drivers underpinning the demand for leadership in knowledge management:

1) **Strategic Value of a KM program** - is it nice to have?; needed to play? (i.e. since everybody else has it); needed to win? (i.e. essential to survival)
2) **Support of CEO** - no independent source of legitimacy; the vision of this leader is crucial
3) **KM approach** - let 1,000 flowers bloom?; decentralized but coordinated?; integrated or centralized?
Chief Knowledge Officer (CKO)

There are several advantages to centralizing the responsibility for knowledge management with the CKO:

- No one else in the organization looks at knowledge management on an ongoing basis
- Knowledge embedded in workers or products fails to add value or money
- Takes time and effort, so need to keep up the momentum
- Business development opportunities get lost
- Organizations don't learn from past failures/successes in the strategic process
- Need to galvanize, direct and coordinate
- Nobody else is in a position to reflect on and articulate a KM program

Once in place, the CKO is responsible for:

- **Articulating** the KM program
- **Evangelizing** the nature and value potential of knowledge:
  - Explaining and selling the Concept
  - Selling both to corporate and to local management, who are asking “What’s in it for me?”
  - Acting as a champion while nurturing other champions
  - Crafting stories to capture people's imaginations
- **Interacting** with:
  - Champions
  - Sponsors
  - Skeptics
  - Partners
- **Designing** initiatives with champions, partners
- **Sponsoring** corporate-wide KM investments (videoconferencing, space, other key resources)

There is a range of extremely diverse and demanding roles to be played by the CKO. Taken together, these roles would seem to require super-human capabilities, and perhaps indicate the need for someone with a broader range of understanding than a CIO might possess, and greater depth than a CEO. These roles include:
<table>
<thead>
<tr>
<th>ROLE</th>
<th>CHARACTERISTICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneur</td>
<td>Enjoys starting up - Tolerant of risks - Spirit of adventure - Sees the CEO's big picture, visionary - Can translate it into action - Thinks of new ways - Produces results</td>
</tr>
</tbody>
</table>
| Consultant                  | • Brings in ideas  
• Listens to what stakeholders want  
• Operates through influence, persuasion and demonstration  
• Willing to let other take central stage  
• Work along with other change initiatives  
• Understands the business model and sees what kinds of knowledge will add value |
| Technologist                | • Understands which technologies can contribute  
• Judges when to adopt a technology  
• Appreciates the opportunities enabled  
• Assesses implementation issues  
• Credible partner to IT |
| Organization Development Specialist | • Understands how people interact with knowledge  
• Helps establish people-oriented infrastructure  
  – physical space  
  – video-conferencing  
  – electronic spaces  
• Mobilizes support for knowledge sharing  
  – e.g. resources for facilitation, librarians  
• Aligns organizations systems  
  – management development  
  – orientation  
  – performance evaluation, incentives, rewards |

In fact, an extraordinary range of qualities is required, including the ability to:

  . be a broad generalist who is comfortable with ambiguity,  
  . possess credibility and good interpersonal skills, and  
  . be extremely motivated to perform.

The question of where to situate the CKO within an organization is an extremely telling one, as it can indicate the seriousness of an organization's KM strategy and the extent of bona fide support by senior management. Whether the position is housed in its own space
(preferable), in the "Human Resources" department¹ (not recommended: may lack stature and clout across the organization), with the CIO (also not recommended: space is too cluttered for CKO work), or elsewhere, the important point is that KM can’t be isolated in the organization. According to Hansen, Nohria, and Tierney,

"Some CEOs have put knowledge management at the top of their agendas. Others have not given it the same attention as they have given cost cutting, restructuring, or international expansion. In companies where that is the case, knowledge management takes place – if at all – in functional departments such as HR and IT. But companies that isolate knowledge management risk losing its benefits, which are highest when it is coordinated with HR, IT, and competitive strategy." (116)

De Merode maintains that given the job’s steep learning curve, CKO success ultimately depends on strong CEO support (especially when undergoing organizational change) and “slack”, i.e. the time to think, talk, dream, and act.

Guidelines:

New KM roles (TFPL – Skills for the Knowledge Economy)

Within KM organizations new roles and responsibilities are evolving. Some new KM specific jobs are being created, some existing positions are being realigned to reflect a substantial KM focus, and many others are having a KM contribution element embedded into the role.

Every organization has a unique approach to KM that reflects their culture and their business drivers. The research, however, identified a discernible generic model to the development of roles associated with KM:

An initial strategy team, generally made up of senior managers, assess the potential of a KM approach in their environment, act as champions for the concept and gain top level support to take it further. The support and leadership of the Chief Executive is considered crucial to the adoption and development of the approach. A Chief Knowledge Officer (CKO) may be appointed - often seconded from top management. This role may not carry a CKO label. The post holder is characterized by their knowledge of the business and the respect with which they are held throughout the organization.

A planning team, with CKO leadership, will take responsibility for the development of the approach and will act as champions throughout the organization. The team is generally drawn from senior positions and their KM responsibilities are just part of their management

¹ According to management scholar Henry Mintzberg, “Leaders energize people by treating them not as detachable ‘human resources’ (probably the most offensive term ever coined in management) but as respected members of a cohesive social system” (Notes on Managing Professionals, HARVARD BUSINESS REVIEW, November-December, 1998).
responsibilities. The concept of a Chief Knowledge Team (CKT) develops and demonstrates a key KM approach.

An implementation team will generally be the first to contain dedicated staff and will be charged with planning and implementing the detail of the agreed strategies. These teams are relatively small and cover the key areas of content, infrastructure, development of KM practitioners, organizational culture, procedures and practices.

Their primary roles include the:
• identification of activities that will have significant business benefit, selling these ideas and benefits to the business units, and working with the units to implement them;
• creation and support of communities across disciplines and functions.

KM practitioners work in business units or core functions facilitating the development and implementation of KM activities, with the support of the implementation team. They often form 'knowledge communities' across the organizations. KM practitioners have a mix of full-time, part-time and extended responsibility roles. Their backgrounds are a mix of disciplines, their key competence being business awareness. KM practitioners may develop or run 'knowledge hubs'.

Knowledge Centres may be created to act as a focal point for knowledge initiatives. These may sit within a major business unit or function, or may provide a centralised underpinning organisation-wide service. In some cases these have been integrated with existing information centres, in others an information centre may exist as a separate but complimentary service. Learning and development is a core part of a KM environment and the management of corporate universities, and self-guided training and development, is associated with a KM responsibility.

Knowledge workers - the work of all members of a KM organisation is affected by a KM approach and as KM approaches and procedures become embedded in the business these 'knowledge workers' need to acquire information literacy skills.


Competencies Required by the KM Project Leader (or mini-CKO) – (Louis de Merode)

Project management
• Develop project objectives
• Assemble and manage
• Monitor budgets and schedules
• Solve problems
Change management
- Define vision
- Make case for change
- Manage stakeholders
- Communicate
- Deal with resistance

Technology management
- Identify needs
- Identify suitable products
- Select best option
- Prototype, test, develop

Obstacles and Considerations (Stephen Denning, Program Director – KM, World Bank)

"CKO"? - The term CKO itself is problematic in that it shares the connotation implicit in the vertical idea of a Chief Information Officer or Chief Executive Officer, that is, someone whose job it is to impose order on an organization. In theory, the CKO should be operating in a more horizontal manner, providing leadership and integration across the organization.

CKO as Superhuman? – Much of the KM literature portrays the CKO as a sort of renaissance person possessed of super-human capacities. This image needs to be scaled back to reality, as most CKOs emerge from on organization’s own unique needs and opportunities.

Acceptance – While senior management and front-line staff may well see the importance of a CKO, middle management can pose a problem. Their careers have been built on climbing the organization’s hierarchy, and so these people may be understandably reluctant to welcome someone whose job is to re-invent the organizational culture horizontally.

Insider or outsider? – Denning’s advice is to “work with what you’ve got”, given the organizational knowledge and credibility required for the job.

Budget – CEO support is required to create and finance this position (e.g. by re-allocating a chunk of the operational budget), since “you can’t do KM on thin air"
Resources:

Louis de Merode's Biography – see Appendix

Literature:


Workshop presentations:

Louis de Merode's "Knowledge Management Stewardship”
http://www.bellanet.org/km/index.cfm?fuseaction=MS_Agenda
The Power of People (Dawn NICHOLSON-O’BRIEN, Jennifer SMITH)

"Knowledge and creativity are now the driving force in a new economy - our human talent, our values and our commitment to working together will secure Canada’s leadership in the knowledge-based economy."

- Throne Speech, House of Commons, October 12, 1999

Synopsis:

The contrast between the “developing” world and the current state of countries such as Canada and the United States provides a useful context for examining the role of knowledge, and knowledge workers, in the twenty-first century. Dawn Nicholson-O’Brien, Executive Director of Corporate Renewal and Knowledge Management - Treasury Board Secretariat of Canada, is an evangelist for KM within the Canadian federal public service. She presented a vision of Canada aspiring to be a model country for the new millennium based on the concept of an “electronic commons” — a successful, “wired” nation thriving on knowledge and innovation as essential tools for economic and social well-being. This vision is based on a few salient facts about Canada:

- 60% of GDP (Gross Domestic Product) is derived from knowledge-based sectors of the economy;
- Canada is a world leader in science, technology, telecommunications, and transportation;
- highest per capita level of post-secondary education enrolment in the world;
- leads the G-8 countries in the use of home computers, Internet, telephones, multimedia;
- currently creating the required knowledge infrastructure.

These factors have allowed Canada to stake out a place for itself as one of the leaders in the knowledge economy, despite doing an abysmal job of telling this story to the world.
Leaders of the New Global Knowledge Economy

The World Economic Forum ranked Canada among the most competitive knowledge-based economies in the world in 1999:

1. Singapore
2. United States
3. Hong Kong
4. Taiwan
5. Canada
6. Switzerland
7. Luxembourg
8. United Kingdom
9. Netherlands
10. Ireland

and in the top 5 of the world’s most innovative economies:

1. United States
2. Germany
3. Finland
4. Netherlands
5. Canada

Need to maintain or improve...


In comparison, there is a discernible gap in the extent of “wiredness” for most of the world’s Southern countries. As evidence, consider that:

• 4 of 6 billion people around the world have no telephone;
• half the people on the planet have never made a telephone call;
• there are 44 million people in Zaire (Congo) with 30,000 phones, and only one-third work;
• to purchase a computer would cost a citizen of Bangladesh more than 5 years’ income;
• of the 150 million people using the Internet world-wide in 1998, only 1 million were in Africa;
• the urban/rural/continental divides are realities;
• the Internet is a “power to the people” medium, where it is accessible.

The stark contrast between different countries and their levels of meaningful connectedness is an important indicator of opportunity. Emphasis on the opportunity to communicate speaks to the central role of knowledge in achieving national dreams, such as the one espoused by the Canadian federal government.

One of the pillars of this vision is the concept of lifelong learning for citizens, including public servants. The Treasury Board intends to lead by example in this regard by creating its own knowledge sharing strategy and developing knowledge capacity across the federal government (e.g. creation of communities of practice), within the context of changing roles in governance for the global, knowledge-based economy.
Investing in People

The Canadian government's KM strategy requires a significant investment in people as well as a new approach to work itself. The industrial era model of wealth creation, emphasizing physical and financial capital as opposed to creativity and innovation in human beings, is no longer appropriate in creating true value. Jennifer Smith of the Governance Network identifies a number of challenges that have become increasingly important in moving from the industrial to the knowledge age:

- a shift in the focus from financial to human capital
- attracting and retaining the best possible workforce
- motivating, satisfying, and challenging the workforce
- defining workforce requirements to support organizational objectives
- improving client or shareholder value.

In response, organizational personnel departments are creating new frameworks to create value through people. This approach entails rethinking and repositioning the personnel function as an integral part of the organization's knowledge management strategy. At the same time, it signals a shift in organizational culture in recognition of the integral role played by culture and values.

The concept of competencies is part of the response to the challenge of attracting and retaining a high-quality workforce. Competencies are defined as "a combination of skills, knowledge and abilities that are essential for the success of the organization, individual performance and overall enhanced contribution". Smith noted that competency-based
models work best in organizations where employees are viewed as a contributor and partner rather than an input.

Competencies are broken down into three major components, including core (essential for strategy achievement); business knowledge (applied cross-functionally); and functional (required for success in a particular function or job family). Competency models promise a range of benefits:

- as a powerful tool for communicating new expectations for employees and establishing a new corporate culture
- as a valuable tool for geographically disbursed organizations – ensures alignment of objectives throughout the organization
- in facilitating broader horizontal linkages throughout the organization
- in allowing organizations to leverage the highest performance from employees by focusing on development.

The essential components of a competency model include:

1) Succession Planning - includes coaching and mentoring mechanisms; using technology to track demographic shifts and the needs of the organization
2) Recruitment – hiring based on fit with organizational competencies; identifying needs and incentives that are in demand by the target population
3) Training and Development – based on a clear understanding of the business
4) Work Design – a flatter, more horizontal model
5) Performance Management – serving as a link between an organization’s purpose and people.

Essential Components of a Competency Model

Note: All components are linked to the employment philosophy

Source: Jennifer Smith’s “Human Resources Practices Related to a Knowledge-Based Workforce"
A major international research project was recently undertaken by TFPL (an information management company) to study the roles and skills needed to implement knowledge management strategies successfully. The project’s goal was "to identify the skills essential for creating and sustaining a knowledge culture – a culture where knowledge and information are valued and where knowledge creation, sharing and utilization are a natural and instinctive part of the business processes" (TFPL, 1999, 1).

The researchers have identified three groups of skills required in KM environments: **core competencies, survival skills and KM enablers**. These skills are characterized as follows:

- **Core competencies** are made up of the education, professional and technical background and expertise of the individual, plus their experience and development.

- **Survival skills** are the set of skills required in any role in order that core competencies can be applied effectively. They include communication, project management, team working, business process understanding and the ability to work across organizational barriers and within complex relationships.

- **KM enabling skills** are a mix of change management skills and those associated with information and resource management skills. Information management skills underpin many KM activities while an understanding of the knowledge process, and the principles of the 'organisation of knowledge' are key. (5)

An interesting aspect of this research is the insight it provides into the evolution of competency frameworks based on an organization’s uniqueness and current location on the KM journey. It was discovered that KM competencies and behaviours are now beginning to be defined for all roles within an organization. For instance, competencies for KM practitioners focus on “business understanding, team working, knowledge management awareness and innovation, project management and planning, client focus, leadership, learning and development, and technical skills” (6).

As KM activities develop, competency frameworks evolve. An organization beginning to explore KM tends to focus initially on changing culture (e.g. creating awareness of KM and its value) and knowledge sharing behaviours, followed by a shift towards improving knowledge processes.
Guidelines

Question #1: (Dawn Nicholson-O'Brien)

How Ready is Your Organization to Deal with Knowledge Transfer & Change?

**Type A organizations:** are aggressive, high-risk pioneers whose senior management plays the role of an agent of change, who revel in new challenges. Well-funded, collaborative organizations, high level of trust among members. Invest heavily in learning / knowledge innovation.

**Type B organizations:** are balanced, low-risk, moderately successful organizations whose senior management focuses on increasing productivity within existing conditions. They are moderately funded and have variable competency levels.

**Type C organizations:** are cautious, risk-averse followers whose senior management is fixed on cost efficiency. They are low to moderately funded and want 100% guarantees of success before proceeding in new directions. Employees receive largely “push” forms of training i.e. “what we think you need to know.”

Source: Dawn Nicholson-O'Brien’s “Leading with Knowledge for the 21st Century”

Question #2: (Jennifer Smith)

Is There a Business Case for Developing Competencies in your Organization?

... given these assumptions about the future:

- What are the major forces which will shape your industry over the next few years, i.e., changes and challenges?
- What are the most significant components of your organization’s competitive or business strategy, i.e., the short-list of things you must do extremely well to achieve desired results?
- What are the most important business capabilities/skills your organization needs to acquire and/or develop to successfully implement business strategies?
- Which people practices are the most important to helping you acquire and/or develop these capabilities/skills, i.e., training and development, HR policies, incentives, etc.?

Question #3: (Jennifer Smith)

How is a Competency Model Implemented? (Critical Success Factors)

- Competency profiles must be linked to the business goals of the organization
- Development of the model is not solely an HR process - it involves line managers and employees
• Competencies cannot be generically applied
• Be patient - this is a long-term change process (with this in mind, set a deadline for completing competency analysis; recognize that perfection is unattainable; focus on practical competencies that can be modified over time).

Source: Jennifer Smith's "Human Resources Practices Related to a Knowledge-Based Workforce"

Resources

Dawn Nicholson-O'Brien's Biography – see Appendix
Jennifer Smith's Biography – see Appendix

Literature:


Workshop PowerPoint presentations:

Dawn Nicholson-O'Brien’s “Leading with Knowledge for the 21st Century”
http://www.bellanet.org/km/index.cfm?fuseaction=MS_Agenda

Jennifer Smith's “Human Resources Practices Related to a Knowledge-Based Workforce”
http://www.bellanet.org/km/index.cfm?fuseaction=MS_Agenda

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BUILDING KM NETWORKS IN THE INTERNATIONAL DEVELOPMENT COMMUNITY
# AGENDA

**Wednesday, February 2**

9:00-9:15 - Welcome

<table>
<thead>
<tr>
<th><strong>THEME:</strong> Understanding Knowledge</th>
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<tbody>
<tr>
<td><strong>OBJECTIVE:</strong> Organizational Understanding of KM</td>
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<tr>
<td>Provide a common understanding of Knowledge Management including how it applies to the field of international development and related development organizations.</td>
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9:15-9:35 - Program and concept overview  
- basic working concepts, definitions, concept model

Facilitator: Lyle Makosky

9:35-10:35 – Keynote Presentation on Knowledge Management  
- history, current trends, key ideas, models, learning to date, areas to focus on in international development organizations

Presenter: Laurence Prusak (Executive Director, IBM Institute for Knowledge Management)

10:35-11:00 - Break

11:00-11:45 – Keynote Case Overview: Knowledge Sharing at the World Bank

Presenter: Stephen Denning (Program Director – Knowledge Management, World Bank)

11:45-1:00 - Lunch

<table>
<thead>
<tr>
<th><strong>THEME:</strong> Defining Your Organization’s Knowledge Business &amp; Strategic Purpose</th>
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<tr>
<td><strong>OBJECTIVE:</strong> Organizational Models for KM</td>
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<tr>
<td>To enable participants to portray their organizational business model as it relates to KM, and to identify the strategic purpose and benefits of KM for their organization.</td>
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1:00-1:30 - Strategic purpose of KM: international development organizational business models  
- overview of knowledge-oriented business/business line archetype models with development organization examples  
- overview of the organization’s “value proposition” and KM strategic purpose

Presenter: Stuart Salter (Canadian International Development Agency)

1:30-2:15 - Exercise  
- apply model to own organization

2:15-2:35 - Guidelines on setting purpose  
- brief presentation on “do’s & don’ts”

Presenter: Louis de Merode (Silver Creek Associates)

2:35-2:55 - Break
Collaboration on Knowledge Management (David BALSON)

"An opportunity exists to change the perspective of the development community regarding learning, sharing, and collaboration in order to realize at least some part of our organizational missions within our lifetimes." – David Balson

Presentation:

Over the past 18 months, Bellanet has been working to develop the concept of a workshop on Knowledge Management for the international development community. While Bellanet staff members are not KM experts, we felt it was important to bring people together to work collectively on this theme. We have now reached the stage near the end of our tiring, yet stimulating, three-day meeting when the question of “What’s next?” arises. The follow-up to this event is very important because of the opportunity available now to build capacity within our community of organizations.

One of the key questions we need to address is whether or not this will be an open or closed community. Do we want to share these experiences more broadly? Should we proceed at a general level regarding KM, or is it worthwhile to look at specific aspects of the theme, by establishing sub-networks?

The question of obligation also requires attention, as sharing implies a commitment on the part of each of us to ensure that the effort we expend going forward as a community is a dynamic and fruitful one.

Here are some specific ideas on “What’s next?” which are open to discussion:

1) Web site – Bellanet is prepared to continue to develop the public site (http://www.bellanet.org/km/) we created for this workshop, if it is of value for this community. We will make available on the site a report covering the workshop.

An online workspace for the use of a community (or communities) of practice can also be created, supported, and facilitated by Bellanet, if useful and as needed.

2) KM Guide – the idea of developing a practical guide for use at the organizational level on the theme of KM has come up several times during this meeting. Obviously, such a project would require commitment and resources, but again, if it would prove useful to this community, it may well be worth pursuing.

3) KM Capacity Building

i) European Workshop – this idea has also surfaced informally here. There exists an opportunity to build on the learning from this experience and create an even better event in Europe, possibly in the summer.
ii) Developing Country KM Workshops – nationally or regionally.

4) GK-LEAP (Global Knowledge – Learning and Evaluation Action Program) – is a Bellanet initiative to support organizations of the Global Knowledge Partnership (GKP) with learning and evaluation for information and communication technology (ICT) activities. Development of communities of practice could involve evaluation unit staff from a range of organizations. GK-LEAP is directly related to the KM efforts we are discussing at this workshop and encompasses all of the work that Bellanet does. An opportunity exists to change the perspective of the development community regarding learning, sharing, and collaboration in order to realize at least some part of our organizational missions within our lifetimes.

Discussion:

A number of participants expressed support for the proposed “next steps” outlined, as well as for Bellanet’s role in developing the workshop and continuing to provide leadership for ongoing activity.

Specific comments:

. the workshop has provided an excellent opportunity for common action
. our dialogue on KM has only just begun
. Bellanet is well situated to facilitate and guide this effort, and is able to provide “neutral ground” in terms of organizational culture
. the link with learning and evaluation efforts is very welcome
. the European workshop is an excellent idea
. enthusiasm for the Web resource and the establishment of communities of practice
. online resources and dialogue are useful but need to be focused and moderated, involving a joint community effort (e.g. with individuals taking responsibility for leading specific themes)
. people from other organizations should be included, including from developing countries
. there is great value in face-to-face meetings like this one supplemented by ongoing, online dialogue
. we should plan to meet again a year from now to share our KM experiences
. the UNDP SURF sites might be useful nodes from which to organize Southern country KM workshops
. emerging tools such as IDML (International Development Mark-up Language) may prove useful in developing the underlying infrastructure for communities of practice
. resources are required to support these follow-up activities
• given that KM is virtually invisible as a theme in the public sector, it is important to place it on the agendas of our respective agencies
• it would be useful to have some sort of introduction or guide to KM for development (e.g. a package for senior management)
• there are striking commonalties regarding KM issues for the development community and those of the philanthropic sector (e.g. foundations)
• we need to be realistic about the limits of virtual community, while seizing the opportunity to open the discussion up to a larger community
• the workshop was inspirational and provided a good start on a lot of hard work ahead; a rich learning experience

Resources:

Literature:


Web sites:

Workshop Web site: http://www.bellanet.org/km/

Bellanet Web site: http://www.bellanet.org
2:55-3:30 – Taking a Knowledge Inventory in Your Organization
- overview of business process mapping
- description of knowledge asset mapping with case studies from development organizations

Presenter: Chris Smart (International Development Research Centre)

3:30-4:05 - Exercise
- apply model to own organization

4:05-4:20 – Designing your Knowledge Strategy
- overview of two core KM strategies, assessment of knowledge asset patterns to select strategy
- overview of case example

Presenter: Chris Smart (International Development Research Centre)

4:20-5:00 - International development community experience: knowledge strategy selection & implications
- two brief presentations by international development community representatives

Presenter: Jean-Pierre Béguin (Inter-American Development Bank)
Presenter: Stephen Denning (World Bank)

Overnight Exercise - designing a knowledge strategy for your organization
- apply to own organization or archetype

Thursday, February 3

9:00-9:40 - Knowledge Strategy Decision
- debrief Overnight Analysis, learning

<table>
<thead>
<tr>
<th>THEME: Managing the Knowledge Structure &amp; Process</th>
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<tbody>
<tr>
<td><strong>OBJECTIVE: Knowledge Management Approach</strong></td>
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<tr>
<td>Provide insight and guidance to the development of a KM approach in a development organization by:</td>
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<tr>
<td>i) identifying the key focus areas in an organization for a KM approach;</td>
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<tr>
<td>ii) providing diagnostic aids to help self-assessment of readiness in each focus area;</td>
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<tr>
<td>iii) providing guidance on the next stages of development that respond to the state of readiness.</td>
<td></td>
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</table>

9:40-10:00 – Creating your Knowledge Acquisition and Sharing Strategy
- overview, 'need to know' maps and sharing approaches

Presenter: Chris Smart (International Development Research Centre)

10:00-10:40 – Communities of Practice

Presenter: Steve Glovinsky (United Nations Development Programme)
Presenters: Adrian Poplawski (Canadian International Development Agency); Michael Litz (Benton)

10:40-11:10 - Break

11:10-11:40 - Strategies for Virtual Collaboration
Presenter: Steve Song (Bellanet International Secretariat)

11:45-1:00 – Lunch & informal exchange round tables

1:00-1:10 – Developing the Enabling Infrastructure for a KM Approach in Your Organization
- general approach, model

THEME: Building a Knowledge Culture & Momentum

OBJECTIVE: Organizational Learning
Provide guidance and experience in how to foster an organizational culture that embraces, integrates and utilizes KM.

1:10-2:00 – Maps, Models, and Metaphors: Leadership for a Knowledge Culture
- gaining leadership buy-in, creating the ‘space’ to share, overcoming resistance, incentives, and rewards
- collaboration and consensus-building methods based on ‘virtual teams’

Presenter: Barbara Weaver Smith (Smith Weaver Smith Inc.)

2:05-2:50 - Exercise

2:50-3:10 - Break

3:10-3:15 – Enabling Technology
- overview

3:15-4:20 – The Role of Technology
- networks, collaboration tools, content creation/management/analysis, future technologies

Presenter: Alison Sestina (DMR Consulting Group Inc.)
Presenters: Hugh Graham (World Bank)

4:20-5:00 – Virtual Collaboration: Methods for Mission

Presenter: Barbara Weaver Smith (Smith Weaver Smith Inc.)

5:00-6:00 - Exercise
- debrief, apply

6:00-6:30 - Fostering KM networks in the international development community

Presenter: David Balson (Bellanet International Secretariat)

Evening - Reception

Friday, February 4

8:30-8:35 - Knowledge Process Stewardship
- introduction, overview

8:35-9:20
- management framework, organizational structure, and quality control
THEME: Fostering Knowledge Management Networks

OBJECTIVE: Knowledge Networking
Provide an opportunity for participating organizations to learn about collaborative approaches to the development of KM and to lay the groundwork for international networking and joint learning in the developmental community regarding KM.
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Presenters' Biographies

David BALSON

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David Balson was responsible for the design and implementation of the Bellanet initiative, which supports collaboration within the development community through the use of information and communication technologies (ICTs). He has been Executive Director of Bellanet since its inception, in 1995.

He founded and managed IDRC's Telematics program in the 1980's, initially supporting computer conferencing in developing countries and then expanding email connectivity for the development and research communities. In the 1990s his focus was on policy issues related to ICTs. He lived in Kenya from 1988 to 1991, where he worked on telematics and related policy programs.

Jean-Pierre BÉGUIN

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Jean-Pierre Béguin has earned a licence in law from the University of Geneva and a PhD in political science from the Graduate Institute of International Studies in Geneva. He has worked successively in the World Bank, the Office of International Economic Affairs in Bern, the Organization of American States and the Inter-American Development Bank. Currently, he is a Principal Management Analyst in the IDB and Co-coordinator of KENSTEER, the inter-departmental coordinating group for the Bank's Knowledge Exchange Network (KEN).
Stephen Denning

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Stephen Denning is spokesperson on the Bank’s major initiative to share its know-how, information and experience not only among its own staff, but also with its clients and partners around the world. As program director of knowledge management, a position he assumed in 1996, Mr. Denning chairs the Bank’s Knowledge Management Board, which includes managers from across the Bank, and is charged with leading the knowledge-sharing reforms. He also coordinates the technology resources needed to implement this strategic shift in management of information and knowledge. Prior to holding this position, Mr. Denning held various management positions including director for the Bank’s Southern Africa department, senior operations adviser for Africa, division chief for population, health and nutrition projects, initially in Latin America and the Middle East, and later in Asia and Eastern Africa. He has also been division chief for the Sahel Countries and the Bank’s riverblindness program.

Steve Glovinsky

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Steve Glovinsky is a public management specialist with over twenty five years’ experience with the United Nations Development Programme in the design and implementation of governance programmes and projects, including twelve years in field assignments. He has worked with a wide and diverse range of countries and organizations to provide methodological guidance and technical support in four areas: public sector rationalization, decentralization and area development strategies, institutional capacity building, and the management of change. Specific competencies include transition planning for state structures, strategic planning, organizational rationalization, programme and project formulation, business systems engineering, and process facilitation. Since August 1998 he has been the Coordinator of the “Global Hub” of UNDP’s system of Sub-regional Resource Facilities – the SURF system.
**Lyle MAKOSKY**

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<thead>
<tr>
<th>Title:</th>
<th>President</th>
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Lyle Makosky is a senior executive with over twenty-eight years professional experience in the public, private and the not-for-profit sectors. His knowledge of strategy development, public policy, consultation and consensus building, and managing issues and organizations in the public interest, has been developed through managing several national associations and government organizations as well as designing and facilitating extensive consultations, public policy reviews, strategic planning and change management processes across Canada.

He is currently the President of InterQuest, which specializes in strategic and process consulting to the private, public and non governmental sectors. InterQuest draws upon interdisciplinary methods and models, and where appropriate, utilizes graphical software and real-time group technology to assist in the dialogue and decision process.

As a federal Assistant Deputy Minister with the Government of Canada, he designed and directed the Health Department's corporate, multi-year, strategic planning exercise, the most comprehensive and far reaching in the department's history. It lead to significant reform in the department's strategic and policy priorities and business lines and was the basis for their response to federal restructuring and budget cuts.

As ADM for the Ministry of State for Fitness and Amateur Sport, he guided the reformulation of federal policy and programs during a period of intense scrutiny (Dubin Inquiry on Drugs, etc.) culminating in a new federal-provincial framework and landmark federal policy.

As Executive Vice-President for The Niagara Institute, he was instrumental in positioning the Institute as a national centre for senior leadership development and a non-partisan, issues resolution forum for business, government and labour executives. Mr. Makosky was also the national Executive Director of four national non-profit associations, successfully establishing their governance and cross-Canada programs during their formative years.

He has a Master of Science degree in Nuclear Physics and completed Doctoral coursework in Geophysics.

**Louis de MERODE**

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<tr>
<th>Title:</th>
<th>Management Consultant - Knowledge Management</th>
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Louis de Merode is Principal Consultant at Silver Creek Associates, which specializes in Communities of Practice and Knowledge Management Strategy. Before being on his own, he was with the World Bank for many years, first in lending operations and then as an internal consultant. Mr. de Merode's clients include Fortune 500 companies, The World Bank and the InterAmerican Development Bank. He is a sought after speaker at conferences on Knowledge Management and Communities of Practice. And he is an avid reader, runner and fly-fisherman.
Dawn NICHOLSON-O'BRIEN

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Dawn Nicholson-O'Brien joined the Public Service of Canada 19 years ago and is originally from Halifax, Nova Scotia, where she pursued her BA and MA at Dalhousie University. It has been her pleasure to serve as a Director-General, Policy, with DFO, as a DG with the Department of Justice, and in other assignments with Justice, CUIO, PCO, Finance and Health and Welfare. She is a self-described “professional gypsy” by choice.

In her current capacity, as the Executive Director of the Corporate Renewal and Knowledge Management Office, she is assisting the TBS in fulfilling its role as a management centre of excellence. This entails being a “seed-bed” for creating new knowledge networks and developmental approaches, both internal and external to the federal government. She is also beginning a part-time Ph.D. in knowledge innovation.

If the Public Service and its leaders are to provide a supportive working environment then Dawn believes the capacity for continuous individual and organizational self-renewal must be a key building-block. Knowledge management, creation and transfer are key to this development of capacity.

Larry PRUSAK

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Larry Prusak, Executive Director of the Institute for Knowledge Management, is a Managing Principal with IBM Global Services in Boston. He has extensive consulting experience, within the U.S. and internationally, in helping firms leverage and optimize their information and knowledge resources.


Prior to joining IBM, Larry was a Principal in Ernst & Young’s Center for Business Innovation, specializing in issues of corporate knowledge management. While there, he was responsible for helping to build a consulting practice centered on firms managing their knowledge resources. Larry’s professional
background also includes work as a researcher and librarian at Baker Library at the Harvard Graduate School of Business Administration, and as a teacher of social and economic history at several universities.

In 1991, Larry won the SLA Professional Award for Contributions to the Field of Information Science. In 1990, he won the H. W. Wilson Award for the year's best article on information science. He holds a B.A. in history from Long Island University, an M.A. in economic and social history from New York University (where he completed all the examinations and course work toward a Ph.D.), and an M.S. in information science from Simmons college. He has guest lectured at the Wharton School, Stanford, Harvard, the University of California, and New York University, and is a visiting faculty member for the Graduate School of Library and Information Science at Simmons College.

Stuart SALTER

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Stuart Salter is a registered professional engineer with a speciality in telecommunications. He started his career as a telecommunications technician in the UK. Following a degree in Electronic Engineering, he moved to the British Telecom Research Establishment and worked on fibre optic transmission systems.

In 1978, Mr Salter moved to Canada to work as a research engineer with Bell Northern Research and subsequently as Director, Customer Engineering with Northern Telecom. Mr Salter then moved to SR Telecom as Director, Marketing, and spent five years designing and marketing rural telecommunications systems worldwide. Mr Salter then accepted a position as a senior Telecommunication Specialist with the Canadian International Development Agency (CIDA). Mr Salter was responsible for CIDA projects in the Americas and in Africa. After four years in this position, Mr Salter returned to the private sector first as Director, Systems Engineering and then Executive Vice President of Com Dev (a Canadian company that designs and manufactures electronic sub systems for satellites). Mr Salter then worked at Deloitte and Touche as a Senior Telecommunications consultant focusing on SE Asia.

For the last 18 months, Mr Salter has occupied the position of Director, Science and Technology at CIDA.
Ms. Sestina is a Knowledge Management practitioner with comprehensive experience working with all aspects of information technology to solve business problems in a collaborative environment, including Customer Management and Change Management solutions. Her background includes extensive work in all areas of the Systems Development Life. Her industry experience includes telecommunications, financial services, insurance, and government services.

Alison has participated in dozens of projects focused on delivering knowledge to user communities: she was involved in the redesign of a leading Customer Management Application to include Knowledge Enabled Selling (KES) functionality. Alison has also led change management and process redesign efforts surrounding the implementation of Knowledge Management Solutions.

Prior to joining DMR, Ms Sestina worked within Renaissance Solutions and Zefer Corporation to develop Knowledge Management applications and processes for clients as well as for internal corporate use.

Alison is a graduate of the Jepson School of Leadership Studies, University of Richmond.

Chris Smart is currently the Director of the Special Initiatives Program within IDRC's Corporate Services Branch. He joined the Centre in 1979 as a Program Officer in the Science and Technology Policy Unit. At various times he has been Deputy Director of the Fellowships and Awards Division, and of the Social Sciences Division.

Chris graduated in General Science from the University of Toronto and later crossed into the social sciences and humanities with an MSc in the History and Social Studies of Science from the Science Policy Research Unit of the University of Sussex.

After graduating from the U of T Chris was a secondary school teacher of science first in Canada and then in Sarawak with CUSO. After completing graduate studies in the UK he was Senior Tutor for four years in the Department of History at the University of Papua New Guinea. Before joining the Centre Chris was the Associate Director for Overseas Programs for World University Service Overseas of Canada.
Jennifer L. SMITH

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In her current position of Vice President with The Governance Network, Jennifer Smith brings a strong background in public policy and management, with an expertise in human resources practices, in both the public and private sectors.

She has worked as a senior management consultant with Watson Wyatt World Wide and previous to this she was Director of Research at the Public Management Research Centre, the research arm of the Public Policy Forum. Jennifer has developed an expertise in the area of public sector reform and renewal. Specifically, she has worked on projects related to HR renewal, change management, alternative service delivery, performance reporting and management, and other related HR issues, such as compensation, retention, recruitment, rewards and recognition, succession planning and pension reform. In addition, Jennifer has conducted HR benchmarking exercises in both public and private sector organizations.

Jennifer has worked on a number of change management projects, organizational reviews, business planning exercises, competency development and assessments, developing performance management frameworks and the development and implementation of values frameworks within a number of federal departments and agencies.

Jennifer has a Masters of Public Administration from Carleton University. Previous to this, she obtained a BA, Highest Honours in sociology and a BA, psychology from Carleton and York University.

Steve SONG

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Steve has worked in the field of information and communication technologies for development since 1991. Much of his experience is in Africa and particularly South Africa where he lived and worked from 1991-1996. Prior to that he worked in the computer industry in Canada and U.K.

Since returning to Canada, Steve has worked for the International Development Research Centre managing the Unganisha project; an initiative to improve the capacity of researchers in developing countries to utilize information and communication technologies for collaboration and information dissemination. He is now a senior program officer at the Bellanet International Secretariat and is involved in developing capacity building resources for the more effective use of information and communication technologies.
Barbara Weaver Smith is president of Smith Weaver Smith, Inc., a knowledge management consulting firm offering the services of a select group of executives, entrepreneurs, project managers, and educators who are experts in accelerating cultural transformations in change environments. Barbara has drawn on her 25 years of teaching and leadership in higher education, nonprofit management, and business to assemble a unique team of professionals with executive and consulting experience in business, education, public policy, and culture.

Barbara earned the Bachelor of Arts in English and History from Anderson University and the Master of Arts and Ph.D. in English from Ball State University. She completed the Institute for Educational Management at Harvard University in 1991.

Currently hosting and facilitating more than a dozen virtual conversations and work groups, Barbara has supported Internet-based collaborations among a wide variety of groups and organizations, including several start-up businesses, an association of professional educators, a TV documentary production team, a community grant-writing consortium, and a corporate global team developing a strategic joint venture. She publishes an electronic newsletter and an online journal and has customized several groupware environments to support the collaborative work of her own virtual team.
Terms and Definitions

The following is a selection of key terms, definitions and concepts of knowledge management. They have to a degree been accumulated, refined and adapted to the field of international development. They are intended as working terms for the purpose of this workshop and are open to suggested improvements as we look to develop a core body of knowledge on this subject for our community.

Business modeling: The process of understanding an organization based on cognitive simplifications such as metaphor, simulation, process modeling, or explicit causal mapping. Business models allow organizational members to interpret (through explanation and/or prediction) organizational behavior.

Communities of Practice: "... groups of people informally bound together by shared expertise and passion for a joint enterprise – engineers engaged in deep-water drilling, for example, consultants who specialize in strategic marketing, or frontline managers in charge of check processing at a large commercial bank. Some communities of practice meet regularly – for lunch on Thursdays, say. Others are connected primarily by e-mail networks. A community of practice may or may not have an explicit agenda on a given week, and even if it does, it may not follow the agenda closely. Inevitably, however, people in communities of practice share their experiences and knowledge in free-flowing, creative ways that foster new approaches to problems." [Wenger, E. C. and W. M. Snyder (2000). "Communities of Practice: The Organizational Frontier." Harvard Business Review (January-February): 7]

Emotional intelligence: "It is the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships" (Daniel Goleman, 1998).

EI refers to the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions in us and in our relationships. EI describes abilities distinct from, but complementary to, academic intelligence or the purely cognitive capacities measured by IQ.

Traditionally, the emphasis when evaluating potential performance has been on intellectual; now compelling research indicates that emotional intelligence is twice as important as IQ plus technical skills for outstanding performance. When IQ test scores are correlated with how well people perform in their careers, the highest estimate of how much difference IQ accounts for is about 25%.

As a manager of a telecommunications company sums it up, "You don't compete with products alone anymore, but how well you use your people". [Emotional Intelligence Services, HayGroup Web site, http://ei.haygroup.com/about_ei/]

Explicit Knowledge: Relates to the codified, recorded, externally visible knowledge of an organization—usually includes classified, quantified and documented enterprise events, descriptions and business processes. It is often but not necessarily housed in an enterprise's information system and stored in a computerized medium or document. It also includes the processes relating to the management of information systems.

Implicit Knowledge: Refers to the contextual surroundings of an organization or community that is imbued with and shapes the collective values, normative behavior, roles, customs, ceremonies and other rituals, expectations of events, expected contributions to the community, and even expected thoughts and conclusions. Examples of implicit knowledge include acceptable holidays, proper ways of dealing with authority, customs for conducting meetings, expectations of performance and team participation, and so on.

Intangible Asset: Valued relationships and knowledge maintained by organizations that are not quantified or cannot be quantified acceptably in the current business environment. Examples include stakeholder relationships such as customer loyalty, supplier reliability, engineering know-how, employee competency, as well as intangibles such as trust, optimism, and experience.
Knowledge:  

1) “the sense that people make of information”  
http://www.oneworld.org/panos/knowledgt.htm]  

2) “... a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers. In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices, and norms.” (Davenport, T. H. and L. Prusak (1998). Working knowledge: how organizations manage what they know. Boston, Mass, Harvard Business School press.)  

3) “In everyday language, it has long been the practice to distinguish between information — data arranged in meaningful patterns — and knowledge — something that is believed, that is true (for pragmatic knowledge, that works) and that is reliable.  
In recent times, theoretical objections to the concept of truth (e.g. by postmodernists) or to that of reliability (e.g. by positivists) have led to some blurring of the distinction. The interchangeable use of information and knowledge can be confusing if it is not made clear that knowledge is being used in a new and unusual sense, and can seem unscrupulous insofar as the intent is to attach the prestige of knowledge to mere information. It also tends to obscure the fact that while it can be extremely easy and quick to transfer information from one place to another, it is often very difficult and slow to transfer knowledge from person to another.  
In assessing attempts to define knowledge it can be helpful to remember that the human mind has often been seen as capable of two kinds of knowledge — the rational and the intuitive.  
In the West, intuitive knowledge has often been devalued in favor of rational scientific knowledge, and the rise of science has even led to claims that intuitive knowledge is not really knowledge at all. However, recognition of the difficulties inherent in transferring knowledge from one person to another has tended to highlight the importance of tacit knowledge e.g. notably in the writings of Polanyi (The Tacit Dimension, 1975), and Nonaka and Takeuchi (The Knowledge Creating Company, 1995). Some analysts have tried defining “knowledge” as wholly tacit (i.e. as capacity in action), thus consigning what others have considered as explicit knowledge to mere information.  
In the East, the tradition has been to celebrate the importance of the intuitive, in comparison with the rational. The Upanishads for instance speak about a higher and a lower knowledge, and associate lower knowledge with the various sciences. Chinese philosophy has emphasized the complementary nature of the intuitive and the rational and has represented them by the archetypal pair yin and yang.  


Knowledge Asset: The organizational resource (asset) that provides access to the required data and information and which supports the analysis of that data / information to produce the knowledge needed to:  

a) reach critical decisions within the business model, and/or  
b) inform/contribute to a 'Knowledge Generating Activity'.  

Note: knowledge assets can be existing facts, data, models, concepts, etc, or the accumulated experience of people, or someone’s insight or ability to problem solve, provide advice or create; and these assets can reside in
people (expertise, leadership), data bases, information sources, organizational structures (teams, reporting relationships), business policy and practice (culture), etc.

Knowledge Ecology: A way of looking at organizations that emphasizes the interplay by the actors in a system of knowledge by focusing on the flow and transformation of knowledge processes. It is a network that constitutes a kind of ecosystem of ideas.

Knowledge Exchange: "... a way of working and getting organized to create, capture and disseminate relevant knowledge, aimed initially at increasing individual effectiveness, transferring information and knowledge through all organizational levels and ultimately making it easily accessible so that all individuals can take effective action. Knowledge Exchange not only includes a corporate memory of information and best practices within the institution, but also incorporates the exchange of the best knowledge with outside organizations, both public and private. If properly implemented, Knowledge Exchange Programs should lead to better quality products.

Knowledge Management is a widely used expression, but it is quite defective: it appears to imply a centralized system and a certain opposition between 'givers' of knowledge and 'recipients' of knowledge. The expression of Knowledge Exchange (KE) seems to translate much better the driving qualities of interaction, reciprocity, equality and decentralization in the process of dissemination of knowledge." [Béguin, J.-P. and J. A. Estrada (1999). IDB KNOWLEDGE EXCHANGE NETWORK, Inter-American Development Bank (IDB): 36]

Knowledge Generating Activity: An activity or function that identifies and assembles data and information. In a business context knowledge generating activities support decision-making. Identifying gaps in research is a knowledge generating activity.

Knowledge Management:

1) 'There is no agreed definition of "knowledge management", even among practitioners. The term is used loosely to refer to a broad collection of organizational practices and approaches related to generating, capturing, disseminating know-how and other content relevant to the organization’s business.

Some would argue that "knowledge management" is a contradiction in terms, being a hangover from an industrial era when control modes of thinking were dominant. Thus knowledge is not just an explicit tangible "thing", like information, but information combined with experience, context, interpretation and reflection. Knowledge involves the full person, integrating the elements of both thinking and feeling. Hence some object to the implicit suggestion in the use of the term "knowledge management" that knowledge can be so managed, as revealing a fundamental misunderstanding of the nature of knowledge.

Many practitioners increasingly see "knowledge sharing" as a better description of what they are about than "knowledge management". Others would prefer to emphasize "learning", since the real challenge in implementing knowledge management is less in the "sending" and more in the "receiving", particularly the processes of sense making, understanding, and being able to act upon the information available. Overall, whatever the term employed to describe it, knowledge management is increasingly seen, not merely as the latest management fashion, but as signaling the development of a more organic and holistic way of understanding and exploiting the role of knowledge in the processes of managing and doing work, and an authentic guide for individuals and organizations in coping with the increasingly complex and shifting environment of the modern economy.' [Denning, S. (1998). What is Knowledge Management?, World Bank Knowledge Management Board: 19. http://www.worldbank.org/km/html/pubs_pres_what.html]

2) An emerging management discipline that embraces knowledge as the core organizational asset in producing value, both internally and externally. It embodies organizational processes that seek the synergistic combination of information management and technology with the creative and innovative capacity of people.

Knowledge Mapping: A process that provides a 'picture' of the knowledge an organization needs to support business processes. [The Language of Knowledge (a glossary of knowledge management terms from The Delphi Group) in "Knowledge Management Meets Analysis" by Alison Rosset, American Society for Training and Development (ASTD). http://www.astd.org/CMS/templates/template_1.htmlArticleid = 22663]
Knowledge Output: The end result of using knowledge assets in support of the knowledge generating activity. Outputs will differ depending on the stage in the organizations business cycle. For example, a knowledge output could be a conversation at the earliest stages of a project, a think piece to inform the decision-making process, a prospectus when a funding decision is required, or a report when feedback is required.

Learning: The iterative process of knowledge creation and transformation that results in new knowledge, skills, attitudes, and other cognitive, physical, or emotional capabilities.

Learning Organization: An organization that facilitates the learning of all its members and continuously transforms itself in response to changes in its business. It recognizes knowledge as an organizational resource and focuses not only on individual learning but also on collective or systemic learning.

Organizational Intelligence: “An organization’s capability to process, interpret, encode, manipulate, and access information in a purposeful, goal-directed manner, so it can increase its adaptive potential in the environment in which it operates.” (Glynn 1996)

Strategy: A course of action, prescribed or descriptive, that is enacted to attain desirable future states or avoid unpleasant ones using existing and anticipated resources. Alternatively, strategy can be defined as a plan, an emergent pattern of behavior over time, a position of an organization in an environment, a perspective of an organization’s fundamental way of doing things, or a ploy designed to outwit an opponent.

Social Capital: The sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit.

Tacit Knowledge: Reflects the “ways of doing” practiced by individuals and communities which cannot be fully articulated, if at all. Examples include knowing how to ride a bicycle, how to deal with a difficult colleague, when to end negotiations so that all participants feel they have contributed, how to make a medical diagnosis under uncertainty, how much is enough, and so on.

Value: An intangible good; an end or purpose of organizing.

Value Proposition: Articulates the fundamental business reasons and expected benefits that drive the organization.
Organizing Committee

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  - Patrik Hunt
  - Lucie Lamoureux
  - Steve Song
  - Brooke Broadbent (consultant)
  - Lyle Makosky (consultant)

❖ **Benton:**
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❖ **CIDA:**
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  - Yves Pétillion
  - Adrian Poplawski
  - Stu Salter
  - Tony Zeitoun

❖ **IDRC:**
  - Carole Joling
  - Chris Smart
Sponsoring Organizations

Bellanet International Secretariat

Bellanet is an international initiative working with the development community to increase collaboration. We support partnerships by providing advice and assistance on more effective use of information and communication technologies (ICTs).
http://www.bellanet.org

Benton Foundation

The Benton Foundation works to realize the social benefits made possible by the public interest use of communications. Bridging the worlds of philanthropy, public policy, and community action, Benton seeks to shape the emerging communications environment and to demonstrate the value of communications for solving social problems.
http://www.benton.org

Canadian International Development Agency (CIDA)

The Canadian International Development Agency (CIDA) is the lead player in delivering Canada's official development assistance program. ... The cornerstone of our development assistance program is to support sustainable development in order to reduce poverty and to contribute to a more secure, equitable and prosperous world.
http://www.acdi-cida.gc.ca

International Development Research Centre (IDRC)

The International Development Research Centre is a public corporation created by the Canadian government to help communities in the developing world find solutions to social, economic, and environmental problems through research.
http://www.idrc.ca
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