Knowledge Management

Tools and Techniques Manual

INDUSTRY

The Asian Productivity Organization (APO) is an intergovernmental organization committed to improving productivity in the Asia-Pacific region. Established in 1961, the APO contributes to the sustainable socioeconomic development of the region through policy advisory services, acting as a think tank, and undertaking smart initiatives in the industry, agriculture, service, and public sectors. The APO is shaping the future of the region by assisting member economies in formulating national strategies for enhanced productivity and through a range of institutional capacity building efforts, including research and centers of excellence in member countries.

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ASIAN PRODUCTIVITY ORGANIZATION

KNOWLEDGE MANAGEMENT

TOOLS AND TECHNIQUES MANUAL

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Knowledge Management: Tools and Techniques Manual

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FOREWORD

The APO's *Knowledge Management Tools and Techniques (KMT&T) Manual* was first published in August 2010. A decade later, we have seen several major changes in KM practices worldwide. In addition, the APO's views on productivity and related issues have evolved, particularly on the importance of knowledge capital to link innovation to productivity through agility.

As part of that evolution, the APO first enhanced its KM Framework by including elements such as sustainability and how public organizations can offer maximum value to citizens. Second, the importance of global and regional knowledge economies is increasingly recognized, and in November 2018 the International Organization for Standardization (ISO) published the ISO 30401 Knowledge Management Standard. The KMT&T Manual was therefore updated to take that first international KM standard into account. Third, significant advances in technology, systems, and tools now allow organizations to manage their knowledge better in innovative ways. Fourth, the APO carefully audited and updated the website links, videos, and templates referenced in the KMT&T Manual to ensure that they remain current, relevant, and accessible. We also took the opportunity to update the manual overall to reflect the most recent KM developments and help practitioners better manage the transition to the digital society.

This 2020 edition of the KMT&T Manual makes it easy to understand and apply the essential methods, tools, and techniques used in KM. It focuses specifically on the top 20 tools to consider first when embarking on a KM initiative. This manual is meant to be used as a companion to the *APO Knowledge Management Facilitators' Guide*. Trainers and facilitators in NPOs, SME owners, and other users can gain a practical understanding of the core tools and techniques widely used in undertaking KM in organizations in any field. In addition to the useful website references, video links, and templates, this manual recommends answers to frequently asked questions concerning KM implementation.

The APO hopes that the KMT&T Manual will assist trainers and practitioners in their continuing efforts to promote and apply KM for improved productivity and sustainability in a world of constant change.

Dr. AKP Mochtan
Secretary-General

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The APO KM Tools and Techniques Manual and Courseware were prepared by the following persons/authors:

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Significant input and guidance were given throughout by Joselito Cruz Bernardo.

Since the teams were spread across Asia and Europe, several of the knowledge and virtual collaborative team tools described in this manual were used throughout the development phase to ensure effective virtual collaborative knowledge teamwork in creating this manual and accompanying courseware. These included collaborative authoring tools, web-based video conferencing, and a wiki/knowledge base developed for the project.

The APO would like to record its appreciation to all contributors for their inputs and perseverance in finalizing this manual and courseware.

INTRODUCTION

This APO *Knowledge Management Tools and Techniques Manual* is the second and updated 2020 release describing some key Knowledge Management (KM) methods, tools, technologies, and techniques to be considered for selection within a Knowledge Management implementation initiative, especially in small and medium enterprises (SMEs).

A key objective for APO has been to develop a training manual on KM Tools and Techniques that will give in-depth knowledge so as to assist National Productivity Organizations (NPO) trainers to make the leap and become KM Educators and Consultants.

This manual accompanies the *APO Knowledge Management Facilitators' Guide*, the *Practical Knowledge Management Guide for SME Owners/ Managers*, the *Knowledge Management: Case Studies for Small and Medium Enterprises*, and *Knowledge Productivity in the Public Sector*, available at www.apo-tokyo.org.

How to Use This Manual

This manual begins with a list illustrating and suggesting how the key KM methods and tools, described later in the manual, support the overall process of more effective Knowledge Management (the Five-Step APO KM process in the APO Knowledge Management Framework).

This is followed, for each KM method or tool, with a description and, where possible, further video links, website references, and, where appropriate, templates, instructions, and measurement criteria for evaluation and implementation.

Knowledge Management is a rapidly developing discipline and, given the rapid emergence of new KM processes, methods, tools, and techniques, this manual serves as a good basic essential platform to start from. KM consultants and practitioners are advised, therefore, to continually share their experiences with using these KM methods and tools and also to keep abreast of new developments.

Aim

The aim of this manual is to provide the National Productivity Organization (NPO) KM consultant, the KM practitioner, and those organizations, large and small, which are about to embark on a KM initiative, with a framework and some very practical tools to get started and assist with a successful KM implementation.

Links

This manual contains many links to useful videos, books, articles,

websites, etc. We have taken every precaution to ensure the accuracy and usefulness of these links and their content at the time of publication. However, we cannot be responsible for any changes that may be made by content owners in the future.

LINKING THE KM TOOLS TO THE APO FIVE-STEP KM PROCESS

This section provides a "big picture" of the KM methods and tools. It shows how they can directly map on to the APO Five-Step Knowledge Management process. This Five-Step KM process is concerned with five key steps:

1. Identifying knowledge

2. Creating knowledge

3. Storing knowledge

4. Sharing knowledge

5. Applying knowledge

A list of suggested KM methods and tools is provided for each step in the APO KM Five-Step process. The number alongside each method and tool represents the number of the method or tool described later in this manual.

As the first step, the KM consultant and/or practitioner can first identify which of the five steps they wish to deal with in the KM implementation initiative and then immediately refer to a list of KM methods and tools to consider applying, based on best KM practice across the world. The team that developed this list consists of experienced KM consultants and practitioners based in Asia, the UK, Europe, and the USA.

Using this list is a very practical way of gaining a quick win within the organization implementing KM. Although this is a very effective start, remember that KM methods and tools have been developed primarily to better support key business processes and business projects. Make sure you strike a healthy balance between the business process/project-driven approach and the KM methods and tools-driven approach.

Step	KM Methods and Tools to consider (guide only)
1. Identifying the knowledge	08. APO Knowledge Assessment Tool
	09. Knowledge Café
	10. Communities of Practice
	17. Advanced Search Tools
	18. Building Knowledge Clusters
	19. Expertise Locator/Who's Who
	20. Collaborative Virtual Workspaces
	22. Knowledge Mapping
	23. KM Maturity Model
	24. Mentor/Mentee Scheme
2. Creating knowledge	01. Brainstorming
	02. Learnings and Ideas Capture
	04. Learning Reviews
	05. After Action Reviews
	07. Collaborative Physical Workspaces
	09. Knowledge Café
	10. Communities of Practice
	13. Knowledge Bases (Wikis, etc.)
	14. Blogs
	16. Video Communication and Webinars
	17. Advanced Search
	18. Building Knowledge Clusters
	19. Expertise Locator/Who's Who
	20. Collaborative Virtual Workspaces
	24. Mentor/Mentee Scheme
	25. Knowledge Portal
	26. Video Sharing
3. Storing knowledge	04. Learning Reviews
	05. After Action Reviews
	07. Collaborative Physical Workspaces
	09. Knowledge Café
	10. Communities of Practice
	13. Knowledge Bases (Wikis, etc.)
	14. Blogs
	16. Video Communication and Webinars
	17. Advanced Search
	18. Building Knowledge Clusters
	19. Expertise Locator/Who's Who
	20. Collaborative Virtual Workspaces
	24. Mentor/Mentee Scheme
	25. Knowledge Portal
	26. Video Sharing

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Step	KM Methods and Tools to consider (guide only)
4. Sharing knowledge	03. Peer Assist
	04. Learning Reviews
	05. After Action Reviews
	06. Storytelling
	07. Collaborative Physical Workspaces
	09. Knowledge Café
	10. Communities of Practice
	12. Document Libraries
	13. Knowledge Bases (Wikis, etc.)
	14. Blogs
	15. Social Network Services
	16. Video Communication and Webinars
	18. Building Knowledge Clusters
	19. Expertise Locator/Who's Who
	20. Collaborative Virtual Workspaces
	25. Knowledge Portal
	26. Video Sharing
	24. Mentor/Mentee Scheme
5. Applying knowledge	03. Peer Assist
	07. Collaborative Physical Workspaces
	09. Knowledge Café
	10. Communities of Practice
	12. Document Libraries
	13. Knowledge Bases (Wikis, etc.)
	14. Blogs
	16. Video Communication and Webinars
	17. Advanced Search
	18. Building Knowledge Clusters
	19. Expertise Locator/Who's Who
	20. Collaborative Virtual Workspaces
	21. Knowledge Worker Competency Plan
	24. Mentor/Mentee Scheme
	25. Knowledge Portal

Further mapping is contained in Appendix A.

PART I: TWENTY ESSENTIAL KM METHODS AND TOOLS TO CONSIDER

This list of KM methods and tools was compiled and agreed by the APO KM methods and tools expert team in Singapore in August 2009 and reviewed in June 2019. It represents those methods and tools implemented by the most successful organizations around the world within their KM implementation initiatives. Please note that the methods and tools are not listed in any particular order of importance or any hierarchy: first are Non-IT Methods and Tools and second, IT Methods and Tools. All are considered important methods and tools. In no particular order, therefore, the twenty KM methods and tools in the list are:

Non-IT Methods and Tools

1. Brainstorming
2. Learnings and Ideas Capture
3. Peer Assist
4. Learning Reviews
5. After Action Review
6. Storytelling
7. Collaborative Physical Workspaces
8. APO Knowledge Assessment Tool
9. Knowledge Café
10. Communities of Practice

IT Methods and Tools

11. Cloud Computing
12. Document Libraries Leading to a Document Management system
13. Knowledge Bases (Wikis, etc.)
14. Blogs
15. Social Network Services
16. Video Communication and Webinars
17. Advanced Search Tools
18. Building Knowledge Clusters
19. Expertise Locator/Who's Who
20. Collaborative Virtual Workspaces

For each KM method or tool described, the following structure has been used:

1. Title of the KM method or tool
2. Why use this tool?
3. How to use this tool
4. When/when not to use this tool
5. Where to use this tool
6. Examples

7. Notes on facilitation
8. Web video links for further information and teaching
9. Other useful websites, books or references

1. Brainstorming

What is brainstorming?

Brainstorming is a simple way of helping a group of people generate new and unusual ideas. The process is actually split into two phrases: divergence and convergence. During the divergent phase, everyone agrees to delay their judgment. In other words, all ideas will be treated as valid. During the convergent phrase, the participants use their judgment but do so in a positive manner, looking for what they like about the ideas, before finding flaws.

Why use this tool?

Brainstorming is appropriate whenever you need to generate a range of options that go beyond the immediately obvious set. Examples might include:

- All the places one could gain customer insights from
- Different ways to learn from competitors
- New ways to use emerging Internet tools to support customers
- Different ways to reward employees for knowledge capture

Brainstorming sessions can be organized very quickly and require very little in the way of material. The instructions (below) describe one method, but this tool is actually very versatile and its basic principles can be applied in many different ways.

How to brainstorm

1. Agree who will facilitate the activity.
2. Make sure everyone is aware of the basic guidelines (see below).
3. Ideally, give everyone sticky notes and pens so that they can write their ideas down.
4. Write the problem on a flipchart or a piece of paper, if you don't have a flipchart, so that everyone can see it all the time.
5. Ask everyone if they understand the problem and whether there is anything that needs clarification. Deal with any information needs, if necessary.
6. Potentially have a group discussion about the criteria that will be used for idea selection.
7. Ask everyone to start writing down their ideas, one per sticky note, and hand them to the facilitator, who then sticks them onto the flipchart. If there are no sticky notes, ask people to shout out their ideas, one at a time, for the facilitator to write down.

8. When the group has finally run out of ideas, take the flipchart page(s) and ask the group to:

   - 1. Look for duplicates and combine them.

   - 2. Vote (by putting dots, check marks or some other symbol) on their favorite X ideas (the number of favorite ideas to be determined by the requirements of the situation), based on the criteria that were identified in the previous step

   - 3. Pick the highest-rated ideas and have the group discuss how those ideas would be implemented. This typically involves identifying the critical next steps.

Guidelines for brainstorming

Divergent stage:

1. Defer judgment
2. Go for quantity
3. Seek wild and unusual ideas
4. Combine and associate
5. Write everything down

Convergent stage:

1. Improve ideas as you go
2. Use affirmative judgment
3. Be deliberate
4. Seek novelty
5. Check with your objectives

When/when not to use brainstorming

Brainstorming is useful when there is a need to generate a relatively large number of options or ideas. It is not appropriate when a problem is known to have a single correct solution that requires careful analysis to determine. For example, brainstorming about possible solutions to a mathematical problem would probably be a poor use of time.

Where to use brainstorming

Brainstorming can be used in almost any situation where a group (two or more people) can find a space to work together. This can be as simple as a shared desk with some blank pieces of paper.

Links

This Wikipedia entry contains a good summary of the technique:
http://en.wikipedia.org/wiki/Brainstorming
An online resource for creative thinking tools can be found at
http://www.mindtools.com/brainstm.html

Videos

What not to do and what to do. Some YouTube videos at
http://www.youtube.com/watch?v=ttWhK-NO4g8&feature=player_embedded#
http://www.youtube.com/watch?v=W1h5L_0rFz8&feature=player_embedded#

https://www.wrike.com/blog/techniques-effective-brainstorming/
https://www.youtube.com/watch?v=9K8W4ooygUUhttps://www.youtube.com/watch?v=9K8W4ooygUU

2. Learnings and Ideas Capture

What is learnings and ideas capture?

A key aspect of knowledge management, at the personal and team level, is to more collectively and systematically capture the learnings and ideas that are taking place. Learnings and ideas capture is a guide to how to do this.

Why use this tool?

Many organizations say that they would like to be more creative, generate more ideas, learn faster and turn their new learnings into better knowledge to share, apply, and exploit.

However, if you observe individuals and teams in most organizations, you will readily see that they are continually coming up with new learnings and new ideas much of the time, especially in team conversations and collaborative work.

"The problem is not a shortage of new learnings and ideas, but, rather, [that] we do not effectively capture these learnings and ideas and systematically do anything with them!"

We need to find better methods, tools, and techniques to do this collectively and systematically.

Imagine two organizations that are competitors in the same business. One organization does not capture learnings and ideas, "as they happen" in the workplace in any collective and systematic way. Instead, they do this episodically from time to time. We know this is ineffective because most of the good new learnings and ideas occur at the beginning of projects and get forgotten over time.

The other organization collects learnings and ideas "as they happen" in the workplace, continuously, collectively, and systematically, and then each month submits them to people who are able to appraise them and turn them into better applicable knowledge.

It does not require much imagination to see that the second organization will definitely learn faster, take smarter decisions, and create new innovative products and services much faster.

The other key reason for capturing learnings and ideas is also very powerful.

"The very process of writing down, explicitly, what you think you have learned, or a new idea, is a fundamental process of knowledge organization that will develop further and refine the tacit knowledge in the individual to the next level."

If you have written a book or an article/paper yourself, you will know intuitively that you are not just merely dumping what you know on paper. The very process of writing is a creative process that forces and disciplines the individual to develop and organize their knowledge faster.

So there is a very good reason why every individual knowledge worker needs to learn how to better capture new learnings and ideas.

How to use learnings and ideas capture

There are many ways to capture new learnings, ideas, and insights. As new technologies emerge, even more possibilities will exist. For example:

Personal capture tools

- One's own memory (vulnerable as the only method)
- Notepad (useful but can be fragmented)
- Personal paper-based organizer (to add more structure)
- Personal Digital Assistant (PDA) notes and don't forget (more structure and electronic storage and dissemination)
- Personal Computer: email, notes, documents, databases (more structure and electronic storage and dissemination)
- Blog (Knowledge Blogging): a very powerful way to capture both spontaneous and structured learnings, ideas, and insights
- Camera (photos to add more information and context)
- Smartphone (photos, audio, and videos to add more information and context)
- Voice recorder (to capture speech)
- Scanner (to capture documents to computer)

Collective capture tools

- Corporate Communities of Practice, network forums, discussion forums
- Electronic chat rooms
- Corporate intranet(s)
- Internet and websites
- Team (collective team blogs)
- Wikis
- Social networks (Facebook, LinkedIn, Twitter, Instagram, etc.)
- Smartphones
- Audio conferencing
- Video conferencing (and PC-based video conferencing)

Ideally, personal capture tools should be integrated with corporate capture tools, e.g., a PDA (or an Apple iPhone or a BlackBerry) and synchronized with a personal computer and a corporate intranet/knowledge portal.

New learnings, ideas, and insights can be captured onto simple document formats/templates, capturing, for example:

- Date and time
- Person capturing the learning/idea
- Situation
- Project or work (code)
- Client or customer (code)
- Location
- Context
- New learning or idea or insight
- Next step/action

A note on facilitation

Discuss with the group how people are too preoccupied with being driven and measured by performance activities, e.g., "what tasks have I performed/not performed today?"

Conduct a class exercise to enable participants to directly experience personally capturing new learnings and/or ideas. For example, ask the participants to consider a typical working day, or session, or recent meeting, or even this course itself.

Ask each member of the group to think for a few minutes, individually, about "what have I learned today?" and write it down. Discuss with the group how these two different approaches, doing and learning, feel.

Discuss with the group how "learning" is "doing" for knowledge workers. Discuss the old industrial paradigm of work as "what have I done" and the new knowledge working paradigm of "what am I learning."

When/when not to use learnings and ideas capture

Naturally, electronic tools are preferable to paper-based tools to lessen the risk of omission and for speed and accuracy. However, the key step is to **capture** learnings and ideas, manually or electronically.

Where to use learnings and ideas capture

Capturing learnings and ideas, systematically and collectively, is a new way of working for many

people. It is a new discipline to learn. It is said that approximately 10% of the working population automatically like to work this way and many do so naturally. This means that 90% of us need to learn how to work this way.

Links

More information for effective capturing of learnings and ideas may be found at:
http://en.wikipedia.org/wiki/Personal_knowledge_management
http://teachinginhighered.com/podcast/personal_knowledge_management_tools/
http://blog.strategyzer.com/posts/2015/3/9/capture-customer-insights-and-actions-with-the-learning-card

3. Peer Assist

What is peer assist?

- This is a technique used by a project team to solicit assistance from peers and subject matter experts regarding a significant issue the team is facing.

- Peer assists are part of a process of what BP calls "learning before doing," i.e., gathering knowledge before embarking on a project or piece of work

- The peer assist meeting may last from one hour or half a day to two days, depending on the complexity of the work. Both the project team and the peers discuss the project and provide solutions.

- The team gains project insights from their peers in the meetings. The peers gain as well, learning from the project and each other.

Why conduct peer assist?

- The purpose of peer assist is to shorten the learning curve of the project team. Normally, team members struggle to solve new and complex project issues based on their existing knowledge and resources. This very often leads to sub-optimal solutions at best and or failures at worst.

- Peer assist will help to better exploit "what we all know between us" and help prevent time- and cost-consuming errors and reinventing the wheel.

- Peer assist provides an avenue for project teams to bring project issues to light with outside expertise. Teams can identify real underlying issues, new approaches, and solutions.

- The ability of peer assist to tap into the experience and knowledge of teams' peers makes it a valuable tool that yields immediate insights and results.

How to conduct peer assist

The project leader normally initiates the assistance when they think peers could assist them in their project

- There is no fixed timetable as to when peers can be called in. Some peer assists are called early in a project and some are called in later, depending on the needs of the project team and the complexity of the project.

- The project leader sets the meeting agenda, which could include some of the following items:
  - Introduction of participants
  - Objectives for the meeting and the schedule
  - Presentation of project details and issues
  - Recommendations and discussion

  It is important to provide time for peer raters to think through the issues and recommendations on their own before reconvening to discuss the recommendations. It is preferable that the meeting be scheduled in two parts, either on the same day or over two days.

- Teams calling for an assist are not obligated to use the suggestions provided by peers. However, most find the insights of their peers valuable in their ongoing project work

- It is not necessary for the project team to decide on recommendations during the meeting. The project team can discuss the recommendations at a later project meeting.

Who should be invited as peer assisters

- Limit the number of peer assisters to no more than six. It is difficult to have an in-depth discussion if the group is large.

- Invite only peers with expertise and knowledge regarding the situation the team is facing in the project.

- The project leader can obtain suggestions from team members regarding possible invitees to the meeting.

Guidelines on conducting peer assist

- It is important that the project team think through the objectives of the peer assist meeting. The more specific and clear the objectives, the more fruitful the meeting will be. Since the project leader initiates the meeting, they are at liberty to redirect the meeting if the discussion deviates from the objectives.

- The project leader or a skilled facilitator can facilitate the meeting. The leader should refrain from facilitating the meeting if they have a tendency to dominate the meeting.

- Sending peers background information on the project and the meeting's objectives is helpful. This will ensure that the peer raters can contribute effectively to the meeting.

- It is useful to have all project team members (or their representatives if the team is large) to attend the meeting. This will provide an opportunity for each participant to ask questions pertaining to their area.

- The leader or facilitator should provide an opportunity for the project team members to respond and participate in the discussion.

- It is important for the project team to convene a meeting to review what they have learned from the Peer Assist meeting.

Videos

Two good videos on peer assist can be found on YouTube at:
http://www.youtube.com/watch?v=ObmQyW3EiiE&feature=player_embedded
https://www.youtube.com/watch?v=tU5Bxdt5iSc

Other Useful Resources

http://www.kstoolkit.org
Collison C., Parcell G. Learning to Fly: Practical Knowledge Management from Leading and Learning Organizations. Milford: Capstone Publishing; 2001.

4. Learning Reviews

What is a learning review?

- This is a technique used by a project team to aid team and individual learning during the work process.

- A learning review is different from an after action review (AAR). An AAR is usually conducted at the end of a formal project.

- A learning review can be conducted after any identifiable event. An event can be either an entire small action or a discrete part of a larger action, e.g., a project-planning meeting.

Why conduct a learning review?

- The purpose of a learning review is to continuously learn while carrying out the project. Team members need to be able to learn quickly and adapt in order to improve it.

- Normally, team members carry on with a project or assignment without reflecting until the project is completed. It is not good enough to wait until the end of the project for a learning review to draw out the lessons learned.

- Learning while doing enables both individuals and teams to learn immediately from both successes and failures, regardless of the length of the project.

How to conduct a learning review

1. Conduct immediately

- Learning reviews are carried out immediately after every team meeting while all team members are still available and their memories are fresh.

- It is important to build in the learning review within the allotted time for the meeting so that it is not seen as an afterthought activity. It should be included in the agenda of the meeting.

2. Appoint a facilitator

- Anyone from the team can be appointed as a facilitator. The project leader should refrain from facilitating the meeting if they have a tendency to dominate the meeting.

- The role of the facilitator is to help the team learn. Team members must be drawn out for their own learning and the team's learning.

- The facilitator must also set the tone for the meeting. This is to ensure that the meeting is open and that there is no finger-pointing. The ideal tone for a learning review is one of openness and commitment to learning. Learning reviews are an avenue for facilitating learning, not a platform for critiques, and they should not be treated as a performance evaluation process.

- The facilitator should ensure that participants "own" the learning process. Everyone at the meeting participates and all have the right to contribute in the learning review.

3. Meeting format

- The learning review revolves around the following four simple questions:
  - What was supposed to happen?
  - What actually happened?
  - Why was there a difference?
  - What have we learned?

- The discussion begins with the first question: What was supposed to happen? A shared understanding of the objective and the plan is crucial. This will ensure there are no misunderstandings among team members.

- It is important for the facilitator to focus on how team members actually felt about what happened rather than simply stating what happened.

- The real learning begins when team members compare the plan to what actually happened. Successes and setbacks are identified and discussed. Action plans are identified to sustain success and remedy the setbacks.

- The facilitator could ask each team member to identify one key learning that will help them in the future. It is useful to capture a record of the learning points and agreed actions to remind the team of the lessons that were identified. The lessons captured are highlighted at the start of the next project meeting.

4. Suggested format for the Lessons Learned Workshop

1. Introduction and agenda

   Present the agenda for the day and remind the team of some of the key events and issues encountered during the project.

2. Creation of new learnings

   Split the team into smaller groups and ask them to brainstorm and capture their personal learnings, ideas, and insights onto self-sticking notes. Group all learnings and issues on the self-sticking notes into natural clusters or categories.

3. Discussion and review
   Discuss these key clusters and ask the following questions:

   - What could we do better next time?
   - What else can we capture for the benefit of all future teams?

4. Rotate the groups
   Allow other groups to comment and add to each group's findings

5. Final discussion
   Workshop participants conduct a final discussion to create summary findings and agree on future actions.

Resources

Collison C., Parcell G. Learning to Fly: Practical Knowledge Management from Leading and Learning Organizations. Milford: Capstone Publishing; 2001.

5. After Action Review

What is an after action review?

- This is a technique for evaluating and capturing lessons learned upon the completion of a project. It allows project team members to discover for themselves what happened, why it happened, and how to sustain strengths and improve on weaknesses.
- It is structured as an informal discussion with the main team members of the project.
- An after action review (AAR) can also be conducted at the completion of the project or at any key milestones of a long-duration project.
- AAR is not a critique or a complaint session. AAR maximizes learning by offering a platform for leaders and members to talk honestly about the project. It is not a full-scale evaluation report.

Why conduct an after action review?

- The purpose of an AAR is to review outcomes vis-à-vis the intended outcomes of a project.
- The AAR is the basis for learning from project success and failures. It is the starting point for making improvements in future projects. Team members can identify strengths and weaknesses and determine how to improve performance in the future by focusing on the desired outcomes and describing specific observations.
- The project team can document the lessons learned and make them available to the rest of the organization to improve decision-making.

How to conduct an after action review

- An AAR can be conducted as soon as possible upon completion of project or at major project milestones.

- In general, the following discussion questions are used to build consensus on the lessons learned:
  - What was expected to happen?
  - What actually happened?
  - What went well and why?
  - What can be improved and how?
  - What are the lessons that can be used in the future?
- At the start of the AAR, the facilitator should review the purpose and sequence of the AAR to ensure that everyone understands what an AAR is and how it works. The introduction should also include some ground rules for conducting and managing the discussion. The role of the facilitator will be explained during the introduction.
- Some pointers for facilitators:
  - It is permissible to disagree.
  - Encourage members to provide honest opinions.
  - Use open-ended questions to guide the discussion.
  - Paraphrase and summarize key discussion points.
- The focus of the AAR is on learning, i.e., identifying lessons learned, rather than blaming individuals for wrong decisions or conducting a performance evaluation. Mistakes or poor decisions can be translated into learning opportunities.
- In order for this to happen, there must be an atmosphere of trust and openness.
- The discussion should ensure that specific issues, both positive and negative, are revealed. Skillful facilitation will ensure that the AAR does not gloss over mistakes or weaknesses.
- In some projects, other stakeholders can bring useful insights and ideas to the review process. Before the review session, the facilitator or a designated team member should consult with these outside stakeholders and summarize their input for the AAR.
- The lessons learned are captured on a flip chart or electronically. This depends on who uses the information and how it is used. Flip charts are a convenient tool for making notes visible to everyone participating in the review. They ensure a shared understanding of and agreement with what has been discussed.
- Electronic capture over the intranet makes it possible to refer to the AAR later on and disseminate it to relevant parties involved in similar projects.

Who should conduct an after action review?

- An independent facilitator can be used to conduct the AAR. A trained independent facilitator may be able to ensure participation from everyone. The facilitator will also be able to draw out insights and issues through probing questions.

- While an independent AAR facilitator can maintain objectivity throughout the review, it may be useful to enlist someone who is somewhat knowledgeable about the subject or topic of the review. That would minimize the learning curve and enable technical discussions to be carried out and recorded clearly.

- Alternatively, a project team member could facilitate the AAR. The team leader must ensure that all background materials, be they reports, surveys, planning documents or other input, are considered. This will ensure that the AAR is complete, thorough, and appropriate.

Links

http://www.skyrme.com/tools/index.htm
http://www.kstoolkit.org/After+Action+Review
http://www.knoco.com/after-action-review.htm
http://www.gurteen.com/gurteen/gurteen.nsf/id/aars-intro
https://blog.itcilo.org/the-after-action-review-aar-capturing-knowledge/06. Storytelling

6. Storytelling

What is storytelling?

Readers may wonder why storytelling is categorized as a KM tool/technique. Storytelling itself can date back to the origin of our social life. Indeed, it is not simply for knowledge management. Storytelling is a means of conveying events in words, images, and sounds, often by improvisation or embellishment. Stories or narratives have been shared in every culture and in every land to entertain, educate, preserve culture, and instill moral values.

In the context of knowledge management, storytelling has since its inception been used as a powerful way to share and transfer knowledge, especially experiential and tacit knowledge. It is literally about telling a story: a person with valuable knowledge tells stories of their experience in front of people who want to gain knowledge. Though the method is quite simple, storytelling, when done appropriately, can share a much deeper level of knowledge than simply sharing information. Storytelling has the strong ability to share a person's experience and lessons learned, since effective stories can convey rich contexts along with contents.

Stories are a fundamental form of knowledge and communication and are particularly suited to knowledge management. It harks back to before writing, when history was transmitted through stories. Much of what we learn and pass on at work or as institutional memory comes from stories colleagues or supervisors tell us. Stories are also extremely important for getting the message out about our work. Though storytelling in itself is KM and is an important process in the KM life cycle, it is also a great means for helping to explain what KM is. Being a better storyteller can mean being better at KM. Telling a good story can mean the difference between a message actually being heard or not.

The World Bank, which established one of the most classic KM cases, used storytelling as a key

activity and added storytelling on the global KM map. According to Mr. Stephen Denning, former Program Director of Knowledge Management at the World Bank and currently an independent consultant on KM and organizational storytelling, the bank utilized the power of storytelling not only to share knowledge but also to promote KM. In 2000, when he had to make senior managers understand KM clearly, he used a story about Madagascar:

A team leader at the World Bank in Madagascar leading a comprehensive review of the country's public expenditures was at the center of a mounting controversy over introducing a value-added tax. Instead of thinking about the issue solely by himself, he sent an email to colleagues in the tax administration community of practice built through the KM program. Within 72 hours, he had received many responses from staff members in Jakarta, Moscow, and the Middle East, from the development research group, and from a retired staff member and an expert at the University of Toronto. Based on these colleagues' advice, he was able to resolve the difficult problem.

Mr. Denning related this story to the senior managers and succeeded not only in helping them understand KM but also make them enthusiastic about it.

As the World Bank case indicates, appropriate storytelling has the strong ability to share knowledge and even affect people's mindset and behavior.

Why use storytelling?

If you can share knowledge through IT systems, you probably do not have to consider storytelling. That is more time-consuming for both storytellers and audiences than just using IT systems. However, storytelling has strong and unique benefits that most other KM tools/techniques rarely have.

1. **It transfers tacit knowledge**: Because it conveys much richer contexts through stories than other means of KM, storytelling by a vastly experienced person in any field has the power to transfer their experiential knowledge.

2. **It nurtures good human relationships**: When someone tells their story, the action also conveys a significant volume of the storyteller's personal information through the story itself, facial expressions, tone of voice, gestures, etc. This aspect nurtures trust between the storyteller and their audience that often becomes a seedbed for a community of practice, which enables further sharing and creation of knowledge.

3. **It brings out audiences' passion**: A great part of storytelling is that it is able to address the logical as well as the emotional part of the brain. As a result, good storytelling can change people's mindset and behavior, resulting in sharing and creating more knowledge than before.

When to use storytelling

This question has already been partially answered in the above description. Many organizations utilize storytelling to transfer experts' knowledge to younger people. Some organizations use storytelling to share lessons learned from project to colleagues who did not participate in the project. Since a storytelling session can arouse participants' interest and let audiences find other people with interests in common, designing follow-up systems to discuss the topic, such as communities of practice or virtual collaboration spaces, can sustain and increase the advantage created through the storytelling session.

How to use storytelling

Basically, holding a storytelling session is quite simple: find a person with knowledge in a certain area, assemble an audience with an interest in common, and let the person tell stories in front of those people. However, gaining the expected results from storytelling is not that easy. Here are the basic steps, including tips for successful storytelling.

Step 1: Identify key area of knowledge you wish to transfer and share in your organization. Do not choose an unimportant knowledge area; that will not only waste your time but will also send the wrong message to your organization.

Step 2: Find the right person who has rich experience and ask them to tell the story. Eagerness and eloquence of the storyteller are the keys for successful storytelling. Therefore, you may want to prepare the story together with the speaker. Steps 1 and 2 can be reversed.

Step 3: Market the storytelling session to candidate participants.

Step 4: Hold the session. It may be effective to create a more informal atmosphere than a regular meeting environment by changing the room layout, serving refreshments, holding an icebreaker session, etc. You may want to hold a small social gathering after the session to encourage networking among participants and with the storyteller.

Step 5: Leverage the output of the storytelling session. This step is critical for maximizing the effectiveness of the storytelling. Here are some tips for leveraging the session:
- Take a video of the session and upload it to the intranet to share the session among all employees.
- Form a community of the topic among the storyteller and participants who have a strong interest in it. The storyteller often becomes the owner of the community.
- Hold regular storytelling sessions to give employees chances to both participate and tell a story.

Video

Storytelling Theory and Practice at
http://www.youtube.com/watch?v=UFC-URW6wkU&feature=player_embedded

Resources

Storytelling. Wikipedia at http://en.wikipedia.org/wiki/Storytelling
Brown J.S., Denning S., Groh K., Prusak L. Storytelling in Organizations.
http://www.amazon.com/dp/0750678208
http://www.knowledge-management-tools.net/storytelling.html
https://www.youtube.com/watch?v=hVcg9L6FLPA
https://www.youtube.com/watch?v=UE3OufWmnMY
https://www.youtube.com/watch?v=Nj-hdQMa3uA

Storyboarding
http://resources.goanimate.com/what-is-a-storyboard-and-why-do-you-need-one/

7. Collaborative Physical Workspaces

Why a physical workspace as a KM tool/technique?

Readers may wonder why a physical workspace is selected as one of the top KM tools/techniques.

A physical workspace in this context literally means the settings in which we actually work, or simply the physical aspects of our office.

When we share or create knowledge, we usually interact with other people through face-to-face communication: we discuss, dialogue, or just ask a question. The physical workspace is where such human interactions take place and it can support knowledge sharing/creation if it is well designed. You may think "we have desks for everyone, meeting rooms for internal meetings, and space for business talks. What else do we need?" Actually, physical workspace is much more than that.

How would you describe the atmosphere of the meeting room above? Dynamic or static? Creative or formulaic? Do you think you can have creative discussion in this room?

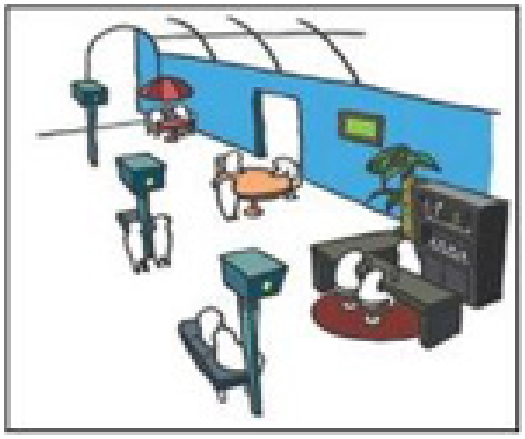
How about this one? Good physical workspace does not mean a luxury office that small and medium-size enterprises can rarely afford. Instead, it is about understanding how people interact or create and share knowledge, and designing a physical environment to support such human activities.

Examples of physical workspace settings for KM

The design of good physical workspaces to support knowledge sharing and creation varies a great deal depending on the kind of interactive scenes an organization needs. Here are some examples of workspace designs to support knowledge-related activities.

- Open space for ad-hoc/informal interactions

Working people interact naturally when necessary; that is quite reasonable. But sometimes, unexpected interactions generate unexpected (good) results. Good open space encourages such ad-hoc, informal interactions among employees or even between staff and customers. The key to encouraging such ad-hoc interactions through physical space is to create reasons for employees to come to shared spaces. Those reasons could be coffee and snacks, magazines and books, or mailboxes and printers to pick up letters and copies.



- Space for team collaboration

Most companies have meeting rooms; however, a meeting room is not necessarily a good place for team collaboration. Any good collaborative space has many small but well-thought-out amenities. For example, a room's walls can significantly support collaboration by providing a surface for displaying information and data to visualize the contexts of the project. No investment in IT is necessary: simply use paper and magnets to turn walls into collaborative tools. Walls can also work as a whiteboard for writing down the content of discussions. If multiple teams need to share one room, a movable board can be used to display everything (paper, sticky notes, graffiti etc.) that was discussed and then stowed away. Playful tools or even toys can support producing a creative atmosphere.

- Space for prototyping

Ideas can only develop value when they are put into action. Does your organization have a physical space for that? Space for prototyping is where people can experiment with their ideas. If you are in the manufacturing industry, you may need equipment for quick and dirty prototyping in the room.

How to design a physical workspace

Producing a creative workspace does not always lead to knowledge creation unless members who use the space understand and become enthusiastic about the concept of how to work in that environment. According, it's necessary to discuss how they want to work and how physical space can support the way members using the space work. One good place to start would be to observe how employees actually work, to find opportunities to support behaviors that can lead to more knowledge creation and sharing.

8. APO Knowledge Assessment Tool

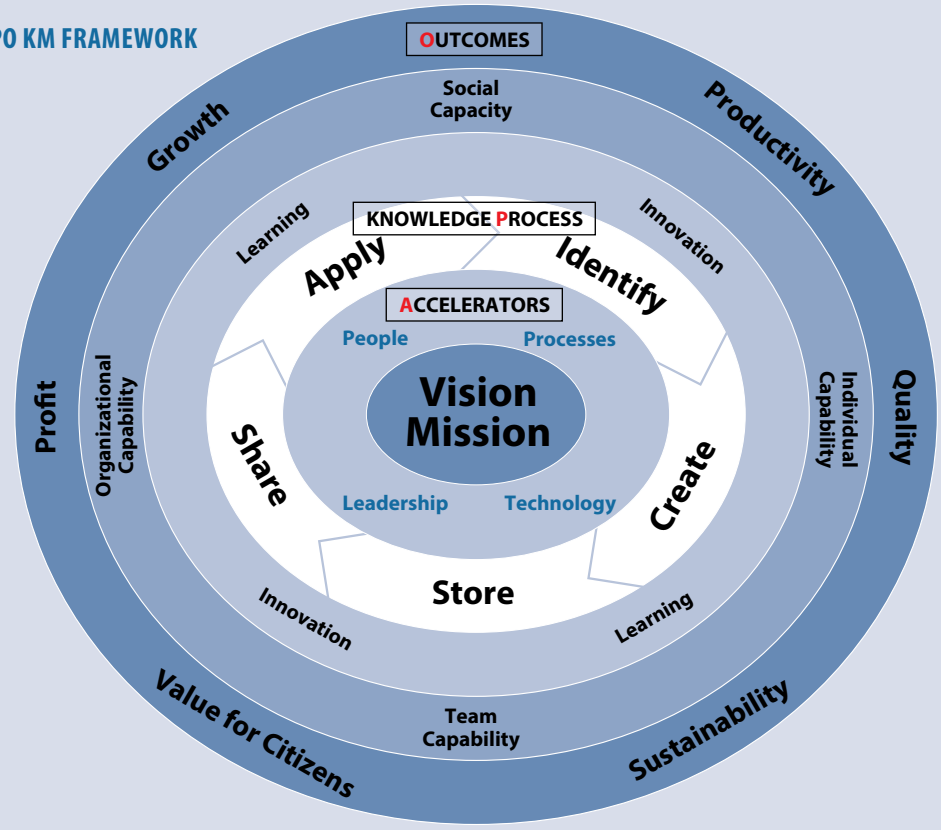
What is the APO KM Assessment Tool?

This is a survey questionnaire designed to help organizations conduct a rapid initial assessment of their readiness for KM. The assessment is carried out at the beginning of the KM program. Before starting on the KM journey, it is important for the organization to know its strengths and opportunities for improvement. The organization can then focus on its KM programs to address the gaps identified through the assessment.

The APO KM Assessment Tool is based on the APO KM Framework (Figure 1). The questions in the tools are based on seven Framework elements.

FIGURE 1

APO KM FRAMEWORK



The starting point for the APO KM Framework is understanding the organization's vision, mission, business goals, and strategic directions. This helps the organization identify and analyze its core competencies and capabilities and which areas it needs to develop. The Four Accelerators can help understand to what extent these drivers and enablers are prevalent in the organization so that a successful KM implementation can be launched. The five Core Knowledge Processes provide an initial assessment of existing practices related to KM which can be leveraged during implementation. Organizations may sometimes already be practicing KM without realizing it. The outcomes of KM efforts measure the effectiveness of the knowledge processes supported by the critical success factors (Accelerators, Vision, and Mission). The outcomes must be able to demonstrate enhancement of learning and innovation that build individual, team, organizational, and societal capabilities, and ultimately lead to improvements in quality of products and services, productivity, profitability, and growth.

The APO KM Assessment Tool has seven audit categories based on the key elements of the Framework:

1. KM Leadership

This category evaluates the organization's leadership capacity for responding to the challenges of a knowledge-based economy. KM leadership is assessed in terms of KM policies and strategies in place in the organization. Leadership capacity is also assessed in terms of the organization's efforts to initiate, guide, and sustain KM practices in the organization.

2. Process

The process category assesses how knowledge is used in managing, implementing, and improving the organization's key work processes. It also assesses the extent to which the organization continually evaluates and improves its work processes to achieve better performance.

3. People

In the people category, the organization's ability to create and sustain an organizational knowledge-driven and learning culture is assessed. The organization's efforts to encourage knowledge sharing and collaboration are evaluated. The development of knowledge workers is also assessed.

4. Technology

The technology category reviews the organization's ability to develop and deliver knowledge-based solutions such as collaborative tools and content management systems. The reliability and accessibility of these tools are also assessed.

5. Knowledge Processes

The organization's ability to identify, create, store, share, and apply knowledge systematically is evaluated. Sharing of best practices and lessons learned to minimize reinventing the wheel and work duplication is also assessed.

6. Learning and Innovation

This category determines the organization's ability to encourage, support, and strengthen learning and innovation via systematic knowledge processes. Management's efforts to inculcate values of learning and innovation and provide incentives for knowledge sharing are also assessed.

7. KM Outcomes

The KM Outcomes category measures the organization's ability to enhance value to customers and citizens through new and improved products and services. The organization's ability to increase productivity, quality, profitability, and sustainable growth through the effective use of resources and as a result of learning and innovation is evaluated.

There are a total of 42 questions covering the seven audit categories, with a maximum score of 210 points. Each category has a maximum score of 30 points. Each of the questions can be rated from 1 (doing poorly or nothing at all) to 5 (doing very well).

Why use this tool?

The APO KM Assessment Tool provides a means of identifying areas on which the organization should focus its KM initiatives. The assessment results highlight the organization's strengths and areas needing improvement. Specifically, the objectives of the APO KM Assessment Tool are to:

- Determine if KM is already being practiced in the organization and to what degree it is being applied

- Determine if the organization has the right conditions for building and sustaining systematic KM processes

- Identify the organization's strengths and opportunities for improvement in managing knowledge

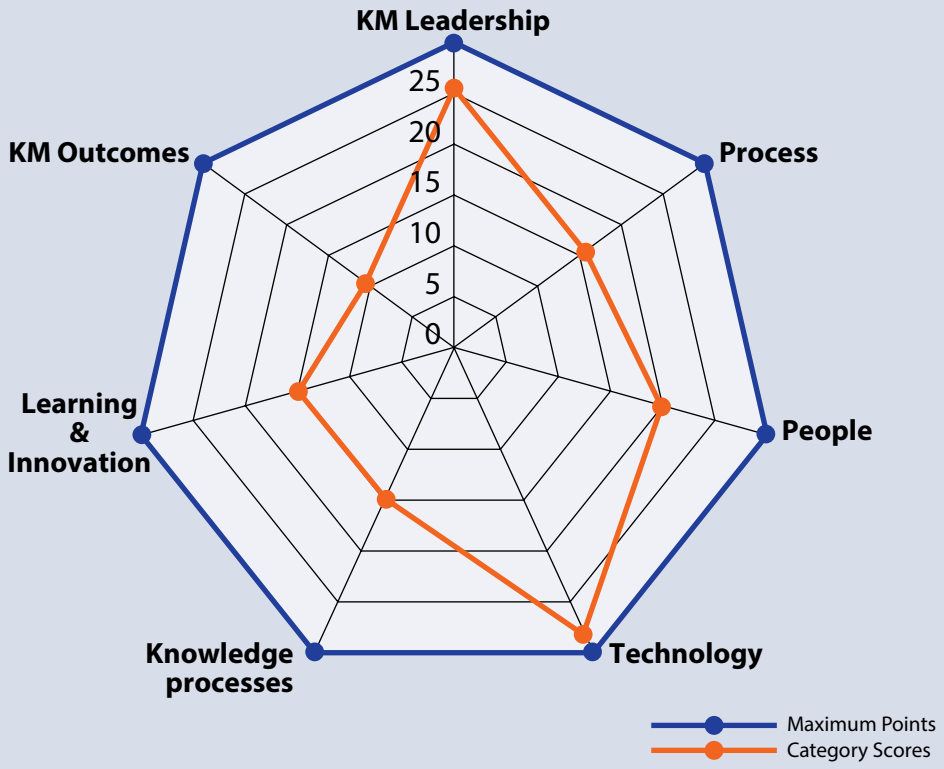
How is this tool used?

The assessment questionnaire should be answered by 70–80% of employees in the organization at all levels and all departments. Respondents should have been employed by the organization for at least six months. This is to ensure that respondents are familiar enough with the organization to be able to answer most of the questions in the questionnaire.

The average score for each category is then tabulated and presented in the form of a radar chart (Figure 2).

FIGURE 2

KM ASSESSMENT RADAR CHART



The chart shows the actual scores obtained for each category versus the maximum score for that category. The scores show categories that are healthy and those that require improvement. The assessment results identify the areas of strengths and opportunities needing improvement (Figure 3). The opportunities for improvement highlight the areas the KM initiatives should focus on.

FIGURE 3

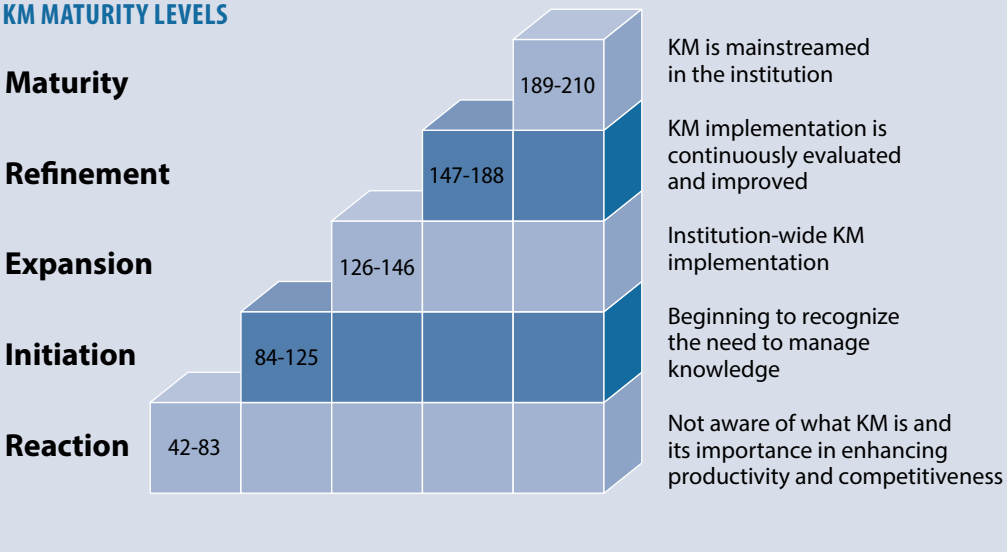
KM Strengths and Opportunities for Improvement

KNOWLEDGE STRENGTHS AND OPPORTUNITIES FOR IMPROVEMENT MATRIX		
CATEGORY	STRENGTHS	OPPORTUNITIES FOR IMPROVEMENT
CAT 1.0 KM LEADERSHIP		
CAT 2.0 PROCESS		
CAT 3.0 PEOPLE		
CAT 4.0 TECHNOLOGY		
CAT 5.0 KNOWLEDGE PROCESSES		
CAT 6.0 LEARNING & INNOVATION		
CAT 7.0 KM OUTCOMES		

The total score of the assessment is then compared against the KM Maturity model (Figure 4). This shows the KM maturity level of the organization.

FIGURE 4

KM MATURITY LEVELS



The results of the assessment provide an understanding of the level of KM readiness in an organization. This may range from the "reaction" level at its lowest to the "maturity" level at its highest. The conditions describing each of these levels correlate to the presence, absence, or weakness of the four KM accelerators, learning and innovation, and the KM outcomes in the organization.

There are five levels in the maturity framework:

Level 1: Reaction Level

The organization is not aware of what KM is and its importance in enhancing productivity and competitiveness.

Level 2: Initiation Level

The organization is beginning to recognize the need to manage knowledge or may already be initiating a pilot KM project.

Level 3: Expansion Level

KM is fully implemented and deployed.

Level 4: Control Level

Implementation of KM is continually evaluated for continuous improvement.

Level 5: Maturity Level

KM is fully mainstreamed within the organization.

When to use this tool

The APO KM Assessment tool is used before the organization starts the KM initiative, to help the organization identify the KM gaps it should focus on.

Links

This website contains a KM Assessment Tool (KMAT) developed by APQC and Arthur Andersen.
http://www.apqc.org/km

9. Knowledge Café

What is a knowledge café?

A knowledge café is a way to have a group discussion, to reflect, and to develop and share any thoughts and insights that will emerge, in a very non-confrontational way. A knowledge café suspends all judgment and normally leads to developing deeper insights and sharing than usual.

Running a knowledge café requires a process to make it work effectively. One of the pioneers of the knowledge café is David Gurteen (www.gurteen.com). He recommends the following process, as discussed on Wikipedia (see links below).

The Knowledge Café begins with the participants seated in a circle of chairs (or concentric circles of chairs if the group is large or the room is small). It is led by a facilitator, who begins by explaining the purpose of Knowledge Cafés and the role of conversation in business life. The facilitator then introduces the Café topic and poses one or two key open-ended questions. For example, if the topic is knowledge sharing, the question for the group might be: "What are the barriers to knowledge sharing in an organization, and how do you overcome them?"

When the introduction session is complete, the group breaks into small groups, with about five people in each group. Each small group discusses the questions for about 45 minutes. The small group discussions are not led by a facilitator, and no summary of their discussions is captured for

subsequent feedback to the large group.

Participants then return to the circle and the facilitator leads the group through the final 45 minute session, in which people reflect on the small group discussions and share any thoughts, insights, and ideas on the topic that may have emerged.

A Knowledge Café is most effective with between 15 and 50 participants. Thirty is an ideal number of people. If there are more than 50 participants, it is usually necessary to employ microphones for the large group conversation, and this tends to inhibit the flow of the conversation. One to two hours are required for a worthwhile Knowledge Café. The only hard and fast rule is that the meeting be conducted in such a way that most of the time is spent in conversation. Presentations and feedback sessions have no place in Knowledge Cafés.

Why use a knowledge café?

In an organization, especially one that is hierarchical, people are not often given the opportunity to reflect on discussions. People are normally tied to performance pressures. Therefore, much of the value that could be gained from good discussion, dialogue, and reflection is lost.

Periodic knowledge cafés provide the opportunity for people to better discuss and reflect. Normally, people leave knowledge cafés more motivated and inspired, and many of them find that they have received some valuable insights.

When to use a knowledge café

There are no hard and fast rules about when/when not to use knowledge cafés. It depends on the culture of the organization or the community. Knowledge cafés are situational. The most important point is that people cannot and must not be forced to attend and participate in a knowledge café. For best results, a knowledge café must be a natural, voluntary, and participatory act of the individuals involved.

Video example

Here is an example of a knowledge café.

Halifax theater makers got together to meet face to face, to share space, ideas, and projects they were working on. Here is a video document of the event.

http://www.youtube.com/watch?v=NTZ0vf0Tmi4&feature=player_embedded

Links

http://en.wikipedia.org/wiki/Knowledge_Cafe
http://www.youtube.com/watch?v=NTZ0vf0Tmi4
http://www.gurteen.com

10. Communities of Practice

What are Communities of Practice?

Origin: Dr. Etienne Wenger and his team of social scientists were early pioneers in establishing the concept of Communities of Practice (COPs) through their study on apprenticeship as a learning model. They found that a complex set of social relationships in apprenticeship enabled effective

learning and named this phenomenon Communities of Practice. COPs became one of the central focuses of knowledge management after their first book on COPs, Communities of Practice – Learning, Meaning, and Identity, was published in 1998. Since then, COPs have been played an important role in the context of KM especially for sharing common knowledge beyond formal divisions/departments, and, indeed, as a tool to break down the barriers of knowledge flow across organizations.

Definition: COPs are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly. In the context of knowledge management, COPs are formed, either intentionally or spontaneously, to share and create common skills, knowledge, and expertise among employees.

Characteristics: COPs can exist in a division or department in an organization, across departments in an organization, or beyond boundaries of multiple organizations, depending upon their objective. COPs are usually for sharing and developing common skills, knowledge, and expertise among, for example, groups of engineers working on similar problems, a network of surgeons exploring novel techniques, or a gathering of first-time managers helping each other. There are also some COPs that focus on generating new knowledge and innovation. The size of COPs varies from two or three people to thousands of them, and members of expertise groups can be either homogeneous or heterogeneous. For example, a COP for effective/efficient problem solving in a certain technological domain would have engineers in the same area, whereas a COP for improving the quality of a certain product would have members from various areas such as developers, marketers, and maintenance staff. The following three elements are crucial when designing a COP.

- **The domain:** A COP is not merely a club of friends or a network of connections between people. It has an identity defined by a shared domain of interest. Membership therefore implies a commitment to the domain and therefore a shared competence that distinguishes members from other people. The domain is not necessarily something recognized as expertise outside the community. The COP members value their collective competence and learn from each other, even though few people outside the group may value or even recognize their expertise.
- **The community:** In pursuing their interest in their domain, members engage in joint activities and discussions, help each other, and share information. A platform that enables such activities is essential for a COP. It is based on a relationship of trust among members that encourages frequent interactions to share and develop common knowledge.
- **The practice:** COPs are not merely a community of interest, people who like certain kinds of movies, for example. Members of a community of practice are practitioners. They develop a shared repertoire of resources: experiences, stories, tools, ways of addressing recurring problems, in short, a shared practice. This takes time and sustained interaction.

It is the combination of these three elements that constitutes a community of practice. And it is by developing these three elements in parallel that a COP is cultivated. COPs can be either non-IT or IT-based depending on where members are located.

Why COPs for SMEs?

COPs can be applied to SMEs for various reasons, but the simplest and strongest is probably to effectively share and develop skills and knowledge among employees without a huge investment, if the COP is well designed. The greatest benefit from an effective internal COP is that it will encourage knowledge to flow across the community, which often spans several divisions in a

company. This means that COPs will open up knowledge sharing and break down knowledge silos that can often occur in hierarchical organizations.

COPs usually do not require significant investment; a COP can be formed as long as there is a certain domain and people who have a passion for it. This is quite appealing for SMEs that usually cannot afford expensive skill development programs for employees.

Many companies have COPs in which the company encourages participants to help each other; for instance, a member may raise an issue they are facing and another will give advice or share their own experience. Other COPs simply give opportunities to exchange best practices on a shared topic.

In addition, the relationship of trust among employees nurtured through COPs can contribute to increasing employee satisfaction and eventually retaining valuable personnel, which are often key issues for SMEs. It's even possible to form COPs to share common skills and knowledge across a single company or among workers at various SMEs to create Knowledge Clusters. COPs are sometimes also formed to accelerate innovation. In this case, people from various backgrounds get together to discuss and experiment with certain ideas.

How to nurture COPs

Because COPs are essentially gatherings of people, it is very important for COP participants to be energetic. However, people cannot be forced to be actively involved and nor can active communities be artificially designed. As a practical matter, the biggest reason that COPs fail is lack of energy to attract and keep participants actively involved. Many successful COPs instead nurture seedbeds of activity through artful, flexible design, although COPs themselves are spontaneous and organic. The following steps describe the basic principles for designing and sustaining active COPs.

1. Find opportunities around strong needs

COPs usually work well when there is a strong need to share common interests, passions, skills or knowledge, for example, common technological expertise among maintenance engineers or designers' success/failure at designing a common machine among designers. It's necessary to find such key opportunities to connect people and share knowledge that can make a difference. In other words, pre-setting the COP's domain attracts people with shared interests/needs.

2. Invite passionate people and take in their thoughts

To design a good COP, key people (two or three are quite enough to start) are needed to play the role of steward in the COP. They are usually very passionate (and often knowledgeable) on the subject that is the central focus of the COP. The COP design is discussed with them with the following focuses:

- What is the strategic context of the COP?
- What is the key knowledge to be shared and created?
- Who are potential participants benefiting from and contributing to the COP?
- What are the key activities that will sustain the vigor of the COP?
- Where can community members physically (and virtually) interact?
- What are the key values for both organization and participants?

These key questions are closely connected to the three elements of COPs: domain, community, and activities.

3. Launch the COP with socializing events

Development of any COP always starts with social relationships. If participants do not develop a trusting relationship, the COP will not work even if it has a rationale for sharing common knowledge. One easy way is to use an existing social network, which often becomes a core COP group, and expand it through face-to-face meetings.

4. Create results through activities and share the stories

After launching the COP, key activities are needed that will sustain vigor as well as produce results of the community. Those activities could range from codifying tacit key knowledge shared among veteran workers to sharing good experience through storytelling sessions. The important point is that the COP needs to have a small initial result that can prove the COP's value. The activities can then be expanded to attract more people by relating success stories.

Key enablers

Key enablers of COPs depend on domain, community, and activities, the three elements of COPs. For instance, if one of the key activities is to share success/failure real experience among engineers across various SMEs, it becomes very important to have passionate stewards and a physical space for gathering. If the objective is to have sales managers in different branches share their daily activities, collaborative virtual workspaces may be needed. The following are distinctive enablers for COPs.

Stewards: Key people who are passionate about the topic and are willing to take care of the COP. This is the most important component of any COP.

Incentives: In general, no artificial incentives such as money or promotion are needed. Instead, spontaneous motivation for continuous participation is essential for sustaining active COPs. Answers to problems participants face, growth opportunities, or simply intellectual fun are important.

Physical/virtual spaces: Since COPs are social, they need spaces where members can interact. That does not necessarily mean that COPs require exclusive rooms. COPs could even convene in virtual space if that meets participants' needs. The point is that COPs center on human relationships built on trust and COPs require spaces where they can nurture such relationships.

Information Technology: Some COPs do not require any IT, whereas for others IT is a key platform for sharing knowledge and perform key activities. Again, this depends on the three elements of COPs: domain, community, and activities.

Management's support: If a COP has a strong strategic purpose for an organization, management's support is an important enabler. That support not only allows participants to understand the importance of COP activities but also gives sufficient resources. If a COP has a more spontaneous nature, overly strong management support can sometimes harm members' motivation if they think it is too tightly controlled. In that case, the best support from management would be hidden sponsorship supportive of COP activities.

Video

The National Association of Agricultural Educators has produced a short video which explains what a Community of Practice means for them, but the principles they explain will apply to any COP. The video, on YouTube, can be found at
http://www.youtube.com/watch?v=be_k4BH2EvU&feature=player_embedded

Links

Etienne Wenger's website on COPs at http://www.ewenger.com/theory/
CPSquare (the COP on COPs) at http://cpsquare.org/

References

Wenger E. Communities of Practice: Learning, Meaning, and Identity.
http://www.amazon.com/dp/0521663636/
Wenger E., McDermott R., Snyder W. M. Cultivating Communities of Practice.
http://www.amazon.com/dp/1578513308/

11. Cloud Computing

What is cloud computing?

Data is actually stored on computers which are often called servers. These computers can be linked together in a network. This network of computers can in turn be connected to the Internet, either publicly or privately.

It is now possible and commonplace to connect our desktop computers, laptop computers, and mobile devices, such as tablets and smartphones, to this network of computers on the internet, wirelessly via WiFi.

The "cloud" describes a network of computers connected on the Internet which can be accessed wirelessly by mobile devices. It is not actually a cloud in the sky somewhere but is a metaphor for being able to connect from anywhere that has Wifi to this network of computers, using mobile, wireless tools. This is commonly known as cloud computing.

Why use cloud computing?

Cloud computing is an evolution from the days of having to be connected by a physical wire to a computer network.

Cloud computing allows large companies like Google, Microsoft, and Amazon, for example, offer space on large networks of computers for sale or for rent by paying a monthly subscription. This has dramatically reduced the cost of computing through enormous economies of scale. Organizations can use the cloud on a pay-per-use basis, avoid larger capital expenditure, and eliminate the need for space to house equipment on their premises.

Cloud computing means that organizations do not necessarily need to install and manage their own computers. Instead, they can rent whatever computing power and data storage space they need as they need it. This enables small organizations to gain access to computing power and storage that might not be available to them otherwise.

Organizations can create a private cloud for their exclusive use, a public cloud offering public access, or a hybrid cloud, which is a combination of private and public clouds.

The advantages of cloud computing are lower cost, more computing power, and less space needed.

A disadvantage of cloud computing is the loss of absolute control over self-managed computers. Some organizations are also concerned about the privacy and security of the data held in the cloud. Cloud operators argue that since they can employ larger security teams, they can therefore offer more security and privacy than self-managed computer installations.

When to use cloud computing

It is possible to choose cloud computing for some kinds of work and use more traditional self-managed computer systems for other types of work. Some organizations, especially smaller ones, can use cloud computing for all their computing needs.
Of course, organizations may choose to continue to handle their computing needs themselves and not use the cloud at all.

How to use cloud computing

Basically, using cloud computing is quite simple. Contact a cloud computing provider and arrange a service contract. Service contracts normally allow customers to terminate the service quickly if they are not totally satisfied.

Videos

Microsoft Cloud: https://www.youtube.com/watch?v=uYGQcmZUTaw
Personal and Corporate Clouds: https://www.youtube.com/watch?v=DGDtujmOBKc
Enterprise Cloud Computing: https://www.youtube.com/watch?v=ae_DKNwK_ms

References

Wikipedia on Cloud Computing: https://en.wikipedia.org/wiki/Cloud_computing

Books

Amazon selection. https://www.amazon.com/s/ref=nb_sb_noss_1?url=search-alias%3Dstripbooks&field-keywords=cloud+computing
Cloud Computing, MIT Press. https://www.amazon.com/Cloud-Computing-Press-Essential-Knowledge/dp/0262529092/ref=sr_1_1?s=books&ie=UTF8&qid=1502270572&sr=1-1&keywords=cloud+computing

12. Document Libraries Leading to a Document Management System

What does this mean?

Information management science and library sciences are concerned with improving information and document management and efficient and effective access to documents is the antidote to information overload. Maintaining a document repository with proper categorization and/or taxonomy and metadata (link below) is paramount for filing and for subsequently searching and finding the right information at the right time.

Why use this tool?

What do document libraries, leading to document management, have to do with knowledge management and why use this tool in the KM context?

“Information is the lifeblood of knowledge.

Our knowledge will be developed as well as our information allows."

Knowledge Management is concerned with developing knowledge assets. Ideally, we should plan to identify what our key knowledge assets are and we should identify and develop information assets to support them. A well-planned document library leading to a document management system will pay dividends as part of any knowledge portal or KM system.

How to use document libraries

Step 1 is to select a Document Library system. There are many proprietary systems, some expensive and very sophisticated, and others are low-cost and less sophisticated. Increasingly, we are now seeing free and open source (link below) document libraries.

The key elements for an effective document library system are:

- One that can be backed up easily and regularly
- One that is automatically indexed and that uses a good search engine
- One with effective security of access and usage
- One that can be accessed over a corporate intranet and/or from mobile laptops, etc.
- One where documents can be organized, searched, and listed under several categories
- One where documents can be cross-referenced, hyperlinked, and stored in relational databases
- One where the document history of revisions is maintained and can be reinstalled at any stage, if required
- One where each document has a life cycle period of relevance and is automatically archived at a specified date
- One where documents can be
  - managed overall by owners
  - edited by selected editors
  - authored by selected authors
  - viewed by selected groups (or open to all)
- One where documents contain metadata and/or keywords for effective searching
- One where documents can be of different types, such as multimedia embedding, etc.
- One where document statistics record the number of views, duration of viewing, etc.

A note on facilitation

The wiki website for the first edition of the APO KM Methods and Tools manual is a good example of a knowledge base comprised of a categorized series of documents. The team preparing the manual used Google Sites to create a collaborative space and Google Docs document management software, which is cloud-based and readily accessible.

The best way to start to demonstrate a meaningful document library in the context of a knowledge base as a part of an effective knowledge management system is to walk participants through each component section of the APO KM Methods and Tools wiki website, which contains:

- Text documents
- Spreadsheets
- Calendars
- Embedded pictures and video
- PowerPoint presentations
- Links and cross-indexing
- Search engine

This is an example of putting a good document library to good use, in context, to support the development of a meaningful knowledge base that will demonstrate, teach, and give template examples of creating, sharing, and applying knowledge. This is a good demo site as participants can see the actual example used by APO. However, they can only view but not change anything, since that would require administrator permission.

When/when not and where to use document libraries

It is difficult to imagine instances where and when document libraries should not be used, apart from small, one-off information activities. Well-organized documents are the first step to effective knowledge management. Document libraries can start simple and use free tools, such as Google Docs, and gradually develop into sophisticated document management systems.

But please remember to also take a look at the Knowledge Bases in this manual and note the difference between information and knowledge.

Example

Walk through the APO KM methods and tools website and look at the different types of document, and document libraries and, if you have access rights, take a closer look at the underlying document repositories in Google Docs.

Links

More useful information on document libraries leading to a document management system can be found at:
http://en.wikipedia.org/wiki/Document_management_system

13. Knowledge Bases (Wikis, etc.)

What is a knowledge base?

General

To understand what is meant by a knowledge base, it is important to realize that there are two types of knowledge, tacit knowledge and explicit knowledge. Tacit knowledge, which is the most valuable type of knowledge, is internal personal knowledge in our heads that is continually being refreshed and updated through learning. Explicit knowledge is knowledge that needs to be externalized in a suitable form.

In the context of organizational knowledge management, important or critical knowledge that needs to be accessed, shared, applied, and developed by others should be externalized. But knowledge management should certainly not be about externalizing and codifying as much knowledge as possible. That would simply be impossible and ineffective. Knowledge that is considered critical for developing and applying in the organization and that would make a big difference to organizational performance should be codified. This is where explicit knowledge bases can be created effectively.

It is certainly a good idea to first identify the key knowledge areas in the organization that, if better managed, would truly make a difference to performance. As a guideline, for each key knowledge area identified, it is good knowledge management practice to develop a knowledge base (to maintain critical explicit knowledge) and also a community of practice/interest or a knowledge network around this key knowledge area (to surface and transfer tacit knowledge).

What is the difference between a knowledge base and a database?

A database contains information that is structured in records so that it can be sorted, categorized, and accessed. A database is typically updated and maintained by one or more database managers or administrators. It is centrally controlled and the information is one-way, that is, from owner to user.

Databases first contained simple structured records of text and numbers. They then became increasingly able to link to corresponding records as relational databases.

With the development of information management as a science during the 1980s and 1990s, it became possible to populate databases with pictures and graphics, videos, tables, spreadsheets, and PowerPoint presentations, etc. The information became richer, even though databases were still typically centrally managed and controlled. But instead of calling them information bases, a term that never really caught on, we still tend to call them databases.

As collaborative team working tools were developed in the 1990s to 2000s, it became possible to create databases with far more collaborative team input, feedback, and collaborative authoring. Centralization gave way to more participative development. Furthermore, we learned how to better capture and store new learnings and ideas within these spaces so that the knowledge base became more alive with continuous learning and ideas and even continuous innovation.

So, unlike a database, a knowledge base will typically develop knowledge as follows:

1. Create new knowledge for a topic

2. Expand the knowledge through discussions and feedback, new learnings, and ideas

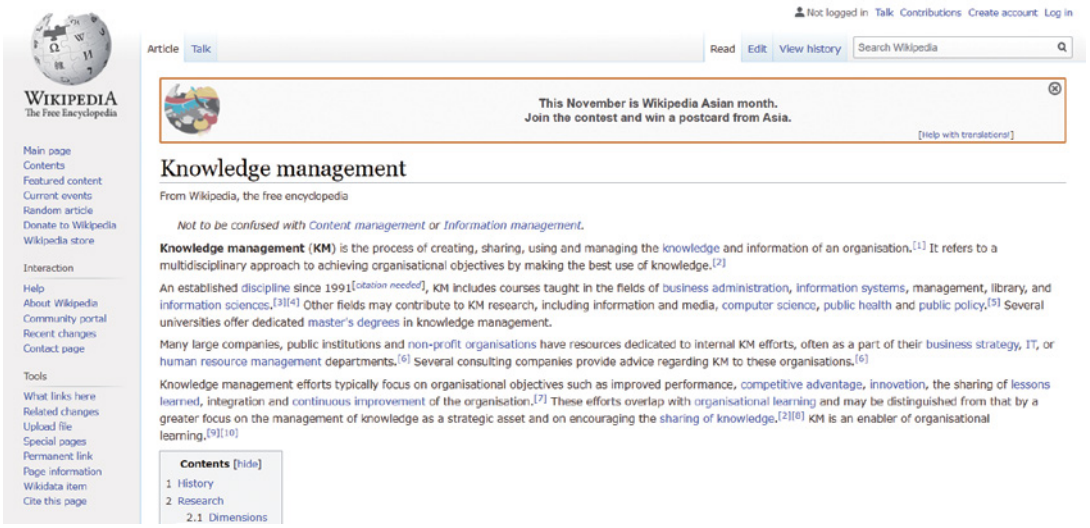
3. Edit the expanded knowledge into better new knowledge

4. Maintain a history of revisions

In the context of knowledge management, these tools enable us to create knowledge bases, which are collaborative and participative databases structured to answer, for a given knowledge topic, the "what, why, where, when, who and how," the six components of knowledge.

What is the difference between a wiki and a knowledge base?

A wiki is one special type of knowledge base with very powerful uses in an organization. A wiki typically contains a page for each knowledge topic, a discussion page, an editing page, and a page to capture a history of changes and revisions. A wiki tends to be open to many/all to collaborate, develop, and access new knowledge. The best example of a wiki is Wikipedia, the encyclopedia created by mass collaboration throughout the world. Note the four sections "article," "discussion," "edit this page," and "history" below.



A wiki is an extremely powerful knowledge management tool for creating, maintaining, and accessing knowledge bases for all types and sizes of organization. Since the introduction of wiki technology in the early 2000s, many organizations have adopted the wiki for many of their knowledge bases. For SMEs in particular, the wiki is a key knowledge management tool.

Structured and unstructured knowledge bases

Some knowledge bases can be quite unstructured, and the wiki is a good tool for this, with people adding knowledge topics freely as they think fit. Many organizations find that the use of wikis can spread rapidly throughout the organization.

Some knowledge bases, such as for standard operating procedures in an organization, knowledge on good practices in the health sector, legal topics, or customer knowledge, etc., need to be structured. For structured knowledge bases, a process must be set up and responsibilities assigned, for people to capture new learnings and ideas as new knowledge nominations, for people to filter and edit these nominations, and for people to edit the knowledge topics. Some organizations even develop very complex knowledge bases based on their own innovative knowledge base processes.

Thus knowledge bases can be simple or complex, structured with simple or sophisticated knowledge processes, or unstructured, freely available on the web as wikis, for example, or developed as expensive proprietary software, depending on the needs of the organization.

Why use this tool?

- Before knowledge management tools and collaborative workspaces were available, people had to access centrally managed and controlled databases. New knowledge creation and knowledge sharing was based on the productivity of a few people in a central team, which is a slow process compared to collaborative working.

- Knowledge bases now enable many more people in an organization to access, create, collaborate, develop, and access new knowledge more often as participants and to rapidly feedback and even create and edit new knowledge, where appropriate.

- Knowledge bases give a full context for a knowledge topic by structuring the "what, why, who, where, when, and how."

- Knowledge bases, especially wikis, do not normally require the involvement of the IT department, although that department's support is welcome. This means that knowledge bases can be created rapidly by users themselves.

How to use a knowledge base

Step 1 *Identify what key area of knowledge you wish to better manage in a knowledge base.*

Ideally, knowledge bases are most effective when they are used to better manage key knowledge areas.

One way to identify a key knowledge area is to:

- Examine the organizational/business/project objectives that you wish to achieve

- Ask the question "What knowledge area(s), if we could better manage them, would make a big difference to our performance?"

However, knowledge bases can also be used very effectively for each new project or process undertaken by an organization.

Step 2 *Decide if the knowledge base is to be managed or open.*

Decide if the knowledge base needs to be managed by a knowledge base manager or subject matter expert to edit feedback and suggested knowledge improvements or if it can be open to a wider audience to directly participate and edit material themselves.

Step 3 *Appoint a knowledge base manager.*

If the database is to be a managed knowledge base, appoint a knowledge base manager (KB manager) and develop a process to receive feedback, new learnings, new ideas, suggestions for improvement, measurements, etc.

Step 4 *Create the knowledge base.*

Consider using wikis wherever possible and developing proprietary knowledge bases whenever there is a special need for that, beyond wiki functionality.

A note on facilitation

- The concept of a knowledge base needs to be taught in a presentation of an example in action lasting for about 1 hour.

- It is a good idea to introduce the notion of a simple process for improving a simple knowledge base from everyday life experience, for example, making a travel checklist and how it can be improved with time and experience, and the benefits for new travelers having immediate access to this knowledge. You may also quote the example of an airline pilot's checklist been developed over many years of experience to ensure flight safety.

- A good way to teach and illustrate an example of a knowledge base that many people will understand and relate to in their daily practical work is to demonstrate this knowledge base, which was used by an international team of experts to initially collaborate and create new knowledge of KM Tools and Techniques, and then open it up for further feedback, comments, and suggested improvements to a larger international APO community.

- Refer to the example below as a possible demonstration.

When to use knowledge bases

This question has already been partially answered in the above description. Basically, wherever there is a collective need is to create new explicit knowledge and apply it, preferably as a team or collaborative community, there is a need for a knowledge base.

Where to use knowledge bases

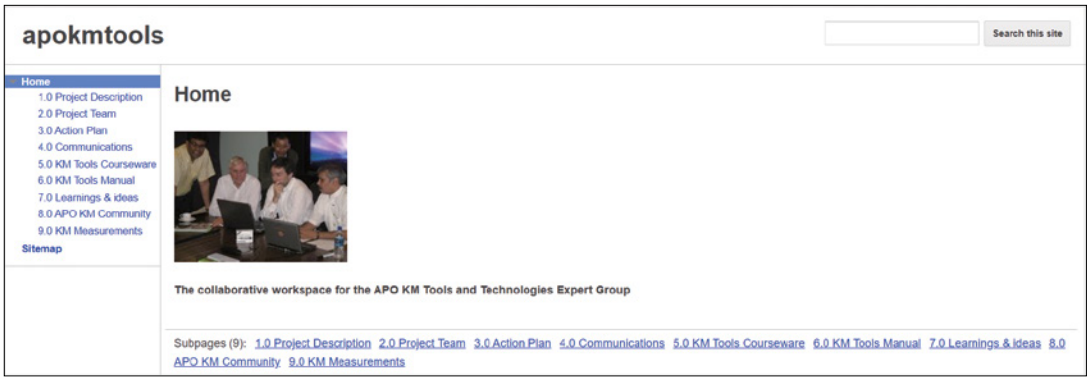
Knowledge bases can be used anywhere in an organization. However, be cautious of overusing knowledge bases. Think about the benefits of a knowledge base versus the costs in financial and in time and effort terms. Think about the possible audiences and possible contributors.

Example

This website may be considered as an example of a typical knowledge base. (If you are reading this manual only, you may gain access to the website at http://sites.google.com/site/apokmtools)

1. What, why, who, where, when, how

First, a quick glance at the navigation menu (click "Home") shows that the website answers the "What, Why, Where, When, Who and How" of the project, the key components of knowledge, as follows:



- What: Project Description
- Why: Project Description and attached APO Project Implementation Plan (PIP)
- Who: Project Team and APO KM Community
- Where, When: Action Plan and communications schedule if video meetings, meeting minutes, project blog, etc. are involved
- How: KM Tools Courseware, KM Tools Manual, KM Measurements, how to use this space

2. Capturing new learnings and ideas
The "learnings and ideas" navigation section is an example of where individuals can capture and record their new learning and ideas as they occur through the project life. Many of the best new learnings and ideas can occur in the beginning phase of a project and often get forgotten at the formal end review of a project.

In addition to volunteered individual learnings and ideas, the project team leader can conduct a formal learning's review, perhaps on a weekly basis, to ask the team what new learnings and ideas were generated. The project team leader can then enter them into the space provided.

At the end of the project, a final after action/learning review may be conducted.

3. Feedback, discussion, collaboration, editing, creating new knowledge
At the bottom of each page is the ability for users to enter comments and feedback for the knowledge base manager. A discussion forum is set up for users under "Communications" to enable them to discuss, share, ask questions, post answers, etc. This facilitates more effective surfacing and sharing of tacit knowledge.

If users are made authors by the knowledge base administrator, they can collaborate even more by entering and editing knowledge topics themselves.

4. Community of Practice (COP)
A COP has been set up within the APO KM Methods and Tools virtual collaborative space for the international KM Practitioners to meet, network, communicate, collaborate, learn, and share together within the APO KM community.

Video

This video on YouTube explains the powerful concept of a wiki in simple terms.
http://www.youtube.com/watch?v=-dnL00TdmLY&feature=player_embedded

Reference

Wikipedia.org

Links

Sign up for your own wiki at:
http://www.pbwiki.com
http://www.wetpaint.com
http://www.wikispaces.com

14. Blogs

What is a blog?

A blog is a very simple journal-style website that contains a list of entries, usually in reverse chronological order. The entries are typically short articles or stories, often relating to current events. However, the entries don't have to be only text. They can also be photographs, videos, audio recordings, or a mixture of all of these.

The content of a blog may be created by a single author, or, in the case of some of the more popular blogs, a whole collection of writers. Although any website could call itself a blog, there are several features that are generally found in blogs, such as:

1. The content is essentially linear. Stories and items are added to a growing list and readers can scroll through the list to see how the author(s)' thoughts have developed

2. The blog has a focus. This is interpreted very liberally: people's blogs wander across a whole range of topics, but even when this is stretched to the limit, there is usually some sense that the blog is about a particular topic.

3. The blog has a mechanism through which readers can comment on entries. Some blog sites choose not to enable this feature. However, discussion is definitely one of the most useful aspects of blogging, although allowing it also tends to place a greater burden on the authors, because comments normally need to be moderated.

4. The blog publishes an electronic index that automatically notifies people when something new has been added.

Why use this tool?

Blogging offers at least three distinct benefits:

1. The software used to host blog sites is usually very easy to use. This means that people can create simple websites in just a few minutes.

2. The process of writing blog entries is one of the easiest ways of engaging in knowledge capture and sharing.

3. The simplicity of the blog sites, coupled with automatic notification of new entries, makes the process of knowledge distribution very simple

In essence, blogs offer an easy way for individuals, teams, and entire organizations, to capture and publish information about specific topics. And, to make this information available, automatically, to as wide an audience as they want.

How to use a blog

The details of how to establish a blog differ depending on the providers of blogging software but the basic principles remain the same:

1. Decide who you are writing for and the tone you wish to adopt. For example, do you wish to be very formal, or more informal? It is well worth reading a number of blogs to see the range of ways in which people communicate.

2. Decide on the topic(s) your blog will cover.

3. Agree on who will write entries.

4. Decide how you wish to promote your blog. One of the simplest ways is to start adding relevant comments on other people's blogs, with links back to your own articles.

5. Create the blog. If you are in a larger organization, you may wish to discuss options with your IT department.

6. Create your first entries.

7. Keep going. Blogs are all about the ongoing creation of useful content.

When/when not to use blogging

Blogs are a useful and appropriate tool for communicating with a wider audience. They have also been used as personal journals without any intended audience beyond the author. However, the real value of blogging lies in the ability to create a simple vehicle for communicating new and interesting information. Over time, the contents of a blog can build up to become a very useful, searchable, knowledge base.

A blog should not be used for information that needs to be revised frequently. A wiki is a more appropriate tool for that problem.

Example

There are, quite literally, millions of blogs. Try looking at some of the entries listed in All Tops (see link below) to get an idea of the different range of blogs that are popular.

Videos

A useful video on YouTube on "What Is A Blog?" is at
http://www.youtube.com/watch?v=NN2I1pWXjXI&feature=player_embedded
"What Is A Blog Reader?" video at http://www.youtube.com/watch?v=0klgLsSxGsU

Links

All Top brings together entries from many of the top blogs at http://alltop.com/

15. Social Network Services

What is a social network service?

Social networks are now very common. A social network is a group of people who share a common area of interest. Social network services are online systems that support social networking. The core services they offer usually include:

1. Finding people who have similar interests or needs.

2. Aggregating people into groups or subgroups, and offering the ability to communicate with those groups.

3. Sharing content such as documents links to relevant websites, or even streaming video.

4. Acting as a discussion forum and knowledge builder.

5. Helping you connect with people you might not have had a chance to connect with otherwise, or helping you to connect with people more quickly.

Why use this tool?

Social networks can be very powerful knowledge-sharing tools. A well targeted network can provide its members with access to highly relevant knowledge, connections, and advice. Smartphones now make it possible to be connected with groups 24/7 through mobile app versions of the software.

In a business setting, knowledge sharing via social network services allows companies to have a much closer relationship with employees and with customers and potential customers. Internet-based social networking has opened up a totally new way of managing relationships both internal and external.

How to use this tool

There are literally millions of social networking sites. In fact, any website or app that allows people to register and hold discussions with other members could qualify as a social network. At its simplest, even an email distribution list can be quite an effective networking tool. Accordingly, the first challenge for anyone who wishes to enjoy the benefits of belonging to a social network is to decide whether there is an existing network which they can join or whether they need to create a new one.

The benefit of joining an existing network is that you will find a collection of like- minded people and that you will be able to have useful conversations immediately.

However, if the topic you are interested in is poorly served, it is certainly possible to create a new network cheaply and efficiently. Today, there are examples of people in organizations who form groups for a specific incident or event and disband the group after its purpose has been served.

The steps for getting involved in a social network would therefore look like this:

1. Identify the topics you wish to network on.

2. Search the major social networks to see if there are any existing groups covering the same topics. We recommend exploring Facebook and LinkedIn as good starting points (see links below). If you want to use social networking as part of your strategy to service your customers more effectively, you are likely to both join relevant existing networks and to start a new one specifically dedicated to your business.

3. Join a network and read through some of the previous discussions in order to understand its tone and level. Many social network sites have different discussion areas depending on, for example, people's level of expertise.

4. Once you feel comfortable in a network, join in the discussions and start to make connections.

5. If you want to start your own network because your specific areas of interest are not being well covered, it is often easiest to simply propose the new network within the discussion areas of your existing network. If enough people share your interest, it is usually very simple to create a new space.

6. Content is king. Your new network needs to be valuable to its members. This means that you and your colleagues need to work hard at finding relevant content, encouraging discussion, and welcoming new members.

When/when not to use social networks

Social networks offer cheap and effective tools for knowledge sharing. If knowledge is important to your organization, there is almost certainly a network that you should be part of. In addition, networks offer new ways to build deeper relationships within the organization as well as with current and future customers. However, social networks, by their very nature, are designed to encourage discussion. If customers like your products they will talk about them, and if they don't, they will probably shout about them. Many companies have been shocked at the strength of feeling that can be generated through social network sites.

Example

LinkedIn was one of the earliest social networks dedicated to business and business relationships and provides a useful example of what can be achieved through professional networks.

Video

"Social Networking in Plain English" video on YouTube at http://www.youtube.com/watch?v=6a_KF7TYKVc&feature=player_embedded

Links

www.linkedin.com
www.facebook.com
www.twitter.com

16. Video Communication and Webinars

(Image courtesy www.GoToMeeting.com)

Video communication

Today, it is possible to connect people around the world via free or low-cost video communication. Products like Skype, GoToMeeting, Webex, Zoom, Facetime, etc. are revolutionizing how we can all connect and communicate.

What is a webinar?

Short for "Web-based seminar," a webinar is a presentation, lecture, workshop or seminar that is transmitted over the Web using video conferencing software. A key feature of a webinar is its interactive element: the ability to give, receive, and discuss information in real time.

Using webinar software, participants can share audio, documents, and applications with webinar attendees. This is useful when the webinar host is conducting a lecture or information session. The presenter can share desktop applications and documents even while speaking. Today, many webinar services offer live streaming options or the ability to record the webinar and upload it to YouTube or another service later.

Why use this tool?

Webinars offer the opportunity for a subject matter expert to reach out to a widely dispersed audience in real time. The two-way nature of communication provides the chance to make the session interactive. Participants can ask questions or comment on a point. Because of improved Internet connectivity and bandwidth, clarity of reception is also very good. It is also possible to participate in a webinar from a smartphone or a tablet.

Webinars are easy to set up and not at all costly. Accordingly, they are becoming a preferred tool for conducting interactive sessions with experts.

How to use this tool

The key difference between a webinar and a video conference is in their structure. In a webinar, the administrator has control over who can be present and share the screen and how participants can interact. Although it is possible for everyone to interact in a webinar by choosing the "one to many" mode of communication where the subject matter expert speaks, presents their screen and may or may not share the video camera, participants cannot see each other.

In a video conference, participants can see each other and interact simultaneously.

Steps for getting started:

1. Select the service you wish to use. There are many providers, some of the most popular of which are Go to Meeting, Anytime Meeting, and many more. Some offer a free trial period and charge a nominal monthly fee thereafter. Users can try out service providers and either select the one best suited to their needs or subscribe to several different service providers at the same time.

2. Registering with a service provider is simple. It does not take more than a few minutes to complete the process, including downloading the software.

3. The hardware requirements are an Internet connection (with a minimum speed of 2MBps Speed), a webcam, a microphone, and a pair of speakers or headphones.

4. Once these are in place, organizing a webinar is simple. Select the time and date, enter the topic, enter/select invitees' e-mail addresses, and that's it.

5. The software sends out invitations to the invitees, converts to the proper time zone, and stores the reminder in their preferred calendar program.

6. As the administrator, you receive the list of confirmations.

7. At the appointed time, the administrator logs in and starts the webinar.

8. Notably, the presenter need not be sitting with the administrator. They could be in any part of the world. The administrator starts the session and hands over the controls to the presenter.

A webcast is a variation of a webinar. In a webcast, some participants are in the classroom or seminar room while the session is being delivered and others join in over the Internet.

When/when not to use a webinar

Given their cost advantages and benefits, webinars are a good tool.

Some organizations have a firewall to limit software access both into and out of the organization. It is therefore wise to involve the IT department when evaluating the options before deciding to make webinars the tool of choice.

Links

You can read more about webinars at:

https://www.lifewire.com/what-is-a-webinar-3486257

The following organizations represent a subset of companies that offer webinar services:

https://www.gotomeeting.com/
https://www.anymeeting.com/
https://www.skype.com/en/business/

17. Advanced Search Tools

What are advanced search tools?

Almost everyone who has used the World Wide Web will, at some point, have used a search engine. However, very few users take advantage of the advanced search tools offered by most search engines. Understanding these tools can significantly improve the quality of search results.

Why use advanced search tools?

Getting the right information can be a hit-or-miss affair. Knowing how to use the search tools to narrow down options is an important skill for any knowledge worker.

How to use this tool

The advanced commands differ depending on the search engines, but the basic principles are the same. For simplicity's sake, we use Google to demonstrate the main tools recommended:

1. To search for the exact phrase, put the text in double quotes. For example, "Association of Southeast Asian Nations" will only find documents with that exact phrase.

2. To limit your search to a specific website, use the word **site**. For example, to search for GDP figures within the ASEAN site, you would enter **GDP site:aseansec.org**

3. To exclude certain words from a search, put a minus sign in front of those words. For example, if you want to search for Lotus but not Lotus automobiles, you would enter **lotus -cars**

4. You can search for phrases that contain some words you are not worried about by replacing them with the* symbol. The* will then match any word. For example, a search for **How to* a car** will produce information on how to drive, wash, sell, make, or donate a car.

When/when not to use advanced search tools

Advanced search tools are powerful and easy to use. You should consider using them if:

1. You are having difficulty finding the information you are looking for.

2. You want to make sure that you are retrieving as complete a set of data as possible.

Links

Google guide to searching at:
http://www.google.com/support/websearch/bin/answer.py?hl=en&answer=134479

Yahoo guide to searching at:

http://help.yahoo.com/l/us/yahoo/search/basics/basics-08.html

18. Building Knowledge Clusters

What is a knowledge cluster?

Throughout history, organizations have grouped together in various types of clusters to enable them to be more effective. Guilds, societies, associations, networks, etc. continue to help support and develop their members.

However, since the birth of the knowledge economy there has been far more emphasis on the knowledge contained, developed, and applied within organizations. There is a growing interest in different types of knowledge networks. The Internet has revolutionized the way organizations communicate and collaborate.

The term "knowledge cluster" refers to a group that comes together in new ways to create, innovate, and disseminate knowledge. In other words, different individuals, teams, and organizations can now come together virtually to better communicate, collaborate, learn, and share knowledge through the cluster.

Knowledge cluster is used to refer to a group of companies in the same industry sector, e.g., a high technology knowledge cluster, a biotechnology knowledge cluster, or different industries that share similar interests. There are regional knowledge clusters where groups of organizations come together, regardless of their size, around specific topics. With knowledge clusters there is often a high incidence of innovation centers linked to local universities.

The focus of a knowledge cluster is generally on R&D, especially at public research institutions with high research potential. The system can also involve the participation of organizations and other groups from both inside and outside the locality or region.

A knowledge cluster may be viewed as a type of Community of Practice (COP) which aims to combine knowledge resources to create new innovative products and services and/or organize and compete in new ways in order to win larger business contracts.

Why use this tool?

There are many good reasons for forming and/or joining a knowledge cluster, but of special importance is the use of knowledge clusters for small and medium-sized enterprises (SMEs). This enables them to gain access to and participate in new knowledge networks with new knowledge resources. SMEs can now communicate, collaborate, learn, share, and apply their knowledge much faster and on a much higher quality level than ever before. SMEs can create knowledge clusters that, in many ways, can effectively compete with large organizations. For example, small regional legal firms have formed successful national legal knowledge clusters. Thanks to the Internet, they can have lower overheads compared to the higher overheads of large organizations. As a result, they are quite often more price-competitive and more resource-flexible and are often able to respond and act much faster than larger organizations.

But even very large organizations have formed collaborative knowledge clusters to create products and services that would be impossible to produce individually. A good example of this is Airbus Industries, which formed a collaborative knowledge cluster in the aerospace industry to build the

fundamentally new Airbus 380.

Furthermore, knowledge clusters can stimulate regional development. For example, the Advancement Center for Science & Technology (NOASTEC) Knowledge Cluster headquarters in Japan highlights the strategic importance of knowledge clusters and refers to them as human networks that can promote beneficial feedback between the seeds of innovative technology held by public research organizations and other groups forming the core of the cluster and the corporate need for practicality. This creates a chain reaction of technological innovation which eventually results in the creation of new industries. By expanding regional areas with this sort of system, it is possible to achieve world-class technical innovation.

Example

Migakiya Syndicate, a local consortium consisting of over 40 small metal polishing companies in rural areas of Japan, is an example of a knowledge cluster. These small companies formerly produced most of the country's metal tableware, but the industry has faced serious decline over the last two decades. The companies' managers began discussions with local Chamber of Commerce and Industry representatives to find a way of reviving their structurally depressed industry. They then realized that their core skills and knowledge were not simply manufacturing tableware but polishing anything: they had strong technical skills. Based on this realization, they formed a knowledge cluster to market their polishing technologies, win orders from all kinds of industries, and work together on the orders. This knowledge cluster received over 150 million yen worth of orders in three years, and their once declining industry was revitalized by sharing and improving their core knowledge and skills.

Thus SMEs can now both compete with larger organizations by forming competitive knowledge clusters and have more opportunities to join the value chain of large collaborative knowledge clusters both regional and international. Knowledge clusters are considered to be the new 21st century model for both competitive and collaborative knowledge-driven organizations.

How to use a knowledge cluster

Step 1 Become aware of the knowledge clusters that exist in your industry sector and join them. If none exist, consider forming a new knowledge cluster, e.g., a ceramics knowledge cluster. In any case, understanding key knowledge areas for an organization is one of the most critical factors for its success.

Step 2 Become competent in participating in Web-based collaborative knowledge working. Consider developing competencies for effective personal and team virtual knowledge working.

Step 3 Understand and become active in the knowledge cluster by applying the principles of working in a COP. In particular, building trusting relationships with other players is essential for the success of knowledge clusters.

Links

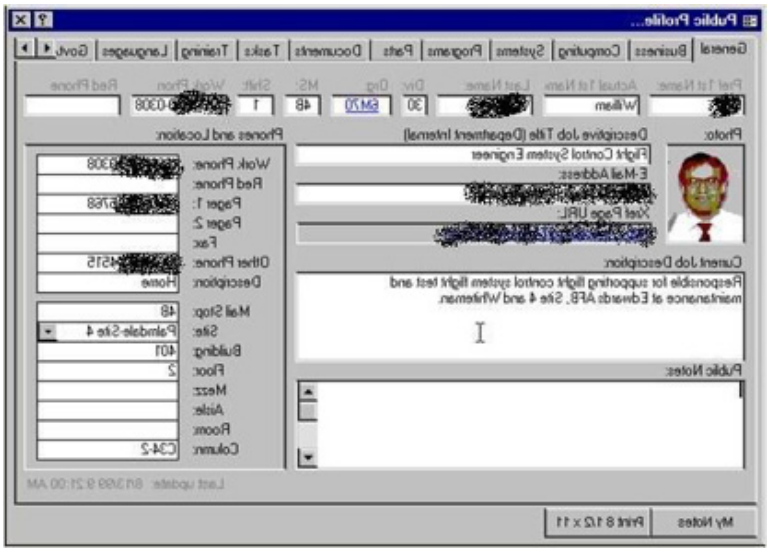
Huggins R. The Evolution of Knowledge Clusters: Progress and Policy. 2008
http://www.klaster.lt/uploads/documents/Huggins_EVOLUTION_OF_KNOWLEDGE_CLUSTERS_2008.pdf
Knowledge Clusters Initiative, Japan Ministry of Education, Culture, Sports, Science and Technology (MEXT):

http://www.it-cluster.jp/english/index.html
Knowledge Management: Case Studies for Small and Medium Enterprises (describes the case of the Migakiya Syndicate):
http://www.apo-tokyo.org/00e-books/IS-40_APO-KM-for-SMEs.htm

19. Expertise Locator/Who's Who

What is Expertise Locator?

Expertise Locator (Expert Locator, Who's Who) is an IT tool for effectively and efficiently connecting people who need particular knowledge with those who own the knowledge. The system sometimes helps build new teams/projects by finding the various kinds of expertise needed. Expertise Locator can be simple electronic yellow pages, more sophisticated systems to automatically search expertise, or even a combination of IT and people (often called Knowledge Brokers) who support finding and connecting those who want the knowledge with those who have the knowledge.



The screenshot above is an example of an Expertise Locator. It usually contains general information about experts such as their name, photo, title, contact information, etc., and key knowledge such as project experience, key knowledge domain, connections with customers, etc. The index of key knowledge depends on what kind of people/knowledge users want to find; it can focus on technological, operational, or relational knowledge.

Why Expertise Locator for KM?

It is often true that knowing who knows what is more valuable than knowing how to do something. This is one of the reasons why Expertise Locator has been one of the key tools for Knowledge Management. Expertise Locator offers a solution to typical problems that large corporations have faced of not being able to find the right people with the required knowledge and expertise. This often leads the organization to reinvent the wheel to solve a problem all over again, simply because they don't know whom to ask what.

If the focus is on sharing who knows what in one small firm, Expertise Locator is probably not

needed. If you have only a small number of colleagues, you are likely to be familiar with their skills, experience, and knowledge. But what about knowledge sharing among people at many SMEs, or what we call knowledge clusters? (See the "Knowledge Cluster" section for more information.) In a knowledge cluster, it's not possible to know everyone's skills, experience, and knowledge in all the SMEs, but a knowledge cluster is necessary for connecting various kinds of expertise to achieve the knowledge cluster's objectives. This situation is similar to that of large corporations that need Expertise Locator, which supports finding the right people with right knowledge at the right time.

How to design and use Expertise Locator

Using Expertise Locator is quite simple. When you want to find someone who has certain knowledge or experience, access the Expertise Locator and insert knowledge key words to find the right person. Making the system work, however, is not that simple.

1. Define KM objectives
   Expertise Locator is just a tool for connecting people with knowledge to others who need it. Before building an Expertise Locator, you must define KM objectives or goals and position Expertise Locator as a tool only when it fits KM objectives.

2. Design the user interface
   Like all other IT tools for KM, Expertise Locator should be simple and user-friendly. For users, the design of indices of knowledge is a key element. The system must be flexible, to allow changes in the indices and other input based on user feedback. Building a perfect system is not possible.

3. Register user expertise
   This is the most difficult part of building and utilizing Expertise Locator. There are many well-built Expertise Locators that have been unable to attract users to register their expertise. You can provide incentives for registering, the best of which is probably true stories of benefits received from registering and using the system. For example, if one person or a small firm wins new business or get involved in a new project based on the registered expertise, the story will spread among users, who may then voluntarily register their expertise and use the system.

4. Maintain the system
   Someone must monitor usage and users' reaction to improve and increase the system's effectiveness. Maintaining the system to attract and sustain use is more important than building it.

When/when not to use Expertise Locator

If you know who knows what, there is no reason to build an Expertise Locator. Just ask the right questions to the right people at the right time. When one of the key problems in organizations is that employees do not know who knows what or who they can approach if they have questions on certain subjects, this may be an opportunity to consider using Expertise Locator.

Links

Useful videos for introducing Expertise Locator are on YouTube at:
http://www.youtube.com/watch?v=8ZSnlQ8h0Ss
https://www.youtube.com/watch?v=KiJh9pF3Xyo

20. Collaborative Virtual Workspaces

What is a collaborative virtual workspace?

The essence of a collaborative virtual workspace is that it enables people to work together irrespective of where they are physically located. In practical terms, this means that it must involve a combination of document sharing, collaborative editing, and audio/video conferencing. Although suppliers offer software packages that contain all these elements, many users assemble their own collection of tools that meet their specific needs.

Why use this tool?

There are many reasons for using a virtual workspace, such as:

1. It allows organizations to access the best skills anywhere in the world

2. It can dramatically reduce travel costs

3. It allows people to work when and where is most effective for them and gives them access to information when they need it.

How to use this tool

Given the market's constantly evolving range of tools, it is difficult to recommend any particular suite. However, it is possible to outline the general principles that should guide the development of a virtual workspace.

1. Start with the people. The tools will tend to amplify existing work practices. Therefore, before introducing virtual tools, it is important that any work group or team review its work practices and reflect on how the workspace would ideally work.

2. Make sure the technology is suitable for the job. Poor quality equipment, e.g., slow Internet links or poor quality audio/video will create a negative experience for users and will discourage them from future use.

3. Train users at the appropriate time. Training is important for successful implementation but should be provided as close to the intended use of the tools as possible.

4. Start with human-centered tools. Audio and video conferencing build on natural human behavior. Good audio/video quality will save people time and stress.

5. Introduce collaborative content creation in association with audio/video conferencing so that it builds on top of existing experience and allows more experienced users to offer immediate assistance to their colleagues.

When/when not to use this tool

Virtual workspaces are rapidly becoming an essential part of many organizations' work practices and this trend is likely to continue. It is therefore important to identify situations where this approach may be inappropriate. Key situations include:

- Poor Internet connections. Although various software tools enable people to work in poorly connected environments, if the connection proves to be too much of a barrier the frustration

caused to users may outweigh the benefits of virtual working.

- The task requires direct physical collaboration. Although fashion design is increasingly being supported through virtual tools, there is a range of tasks that genuinely require physical co-location.

- Security and privacy are paramount. In situations where privacy is absolutely essential, for example a doctor-patient relationship, co-location may be essential.

Example

A powerful collaboration suite can be assembled by combining Skype (for audio/video conferencing) with the Google Sites collaborative workspace. The resulting combination allows teams to jointly author documents, discuss action plans, and capture their key knowledge in a wiki. The total package is available free of charge.

One level up, in terms of both cost and capabilities, is Adobe Connect Pro. This integrated suite enables teams to create documents and discuss their decisions, and also offers additional features such as screen sharing, team break-out rooms, voting, and meeting management. The entire system runs on a Flash plug-in and is therefore available on the vast majority of personal computers, without any further installation required.

Teleplace is an example of state-of-the art virtual collaboration. The system provides a very powerful three-dimensional world that supports the full range of collaboration in an immersive environment. Although the system is very simple to use, it is likely to require more training for users to fully exploit its power.

Some virtual collaborative software suppliers

- Google Docs: http://www.google.com/apps/intl/en/business/index.html

- Adobe Connect Pro: http://tryit.adobe.com/us/connectpro/webconference/?sdid=FBFLM

- Teleplace: www.teleplace.com

- Google Sites at https://sites.google.com

PART II: SIX FURTHER HIGHLY RECOMMENDED TOOLS

The twenty essential KM methods and tools described earlier are those recommended when considering starting a KM initiative.

The list below shows six further KM methods and tools recommended for consideration once the KM initiative has started. However, each organization has its own unique needs and preferences and it may be the case that your organization will wish to consider the use of these six methods and tools immediately at the start of the KM implementation initiative. There is no one absolute implementation solution.

Please note that the methods and tools here are not listed in any particular order or hierarchy. They are all considered important.

Non-IT Methods and Tools

21. Knowledge Worker Competency Plan
22. Knowledge Mapping
23. KM Maturity Model
24. Mentor/Mentee Scheme

IT Methods and Tools

25. Knowledge Portal
26. Video Sharing

21. Knowledge Worker Competency Plan

What is a Knowledge Worker Competency Plan?

A Knowledge Worker Competency Plan is a personal competence plan for individuals to develop the critical skills required to become an effective knowledge worker. This is also known in some organizations as a Knowledge Scorecard.

Why use this tool?

The purpose of the Worker Knowledge Competency Plan is to allow team leaders and managers to track the development of employees' critical knowledge working skills and allow individuals to identify their current levels of competence and to be better rewarded and recognized in terms of competence levels.

Individuals must achieve certain levels of competence to become proficient knowledge workers. There are three basic levels of competence:

- **Level 1** Awareness and understanding of knowledge worker skills

▪ **Level 2** Applied practice of knowledge worker skills, but lacking consistency

▪ **Level 3** Demonstrated consistent competence in the practice of knowledge worker skills
Some knowledge-driven organizations have introduced a fourth level of competence:

▪ **Level 4** Able to teach others

This additional level of competence helps to recognize and create a culture of "teachers" in the organization. After all, teaching is knowledge sharing.

Some organizations have introduced higher levels of competence in recognition of thought leadership and even world-class competence.

When to use a Knowledge Worker Competency Plan

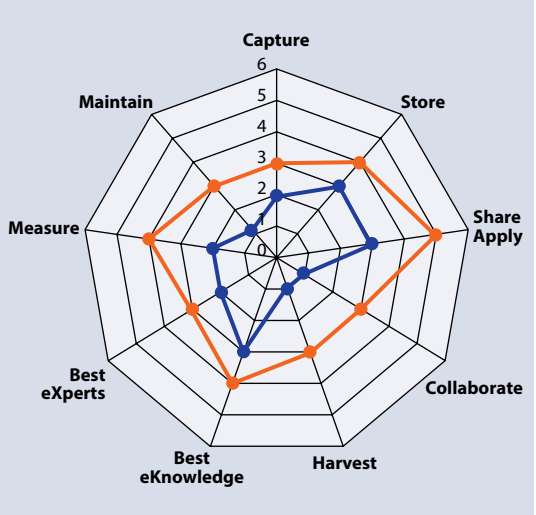
The ideal way to use Knowledge Worker Competency Plans is to integrate them into an existing organizational competency framework. If the organization has an existing competency framework, it can be extended and knowledge worker competencies can be included in the appraisal and selection system. This then provides a direct link between knowledge work levels of competence, the rewards and recognition system, and the selection process.

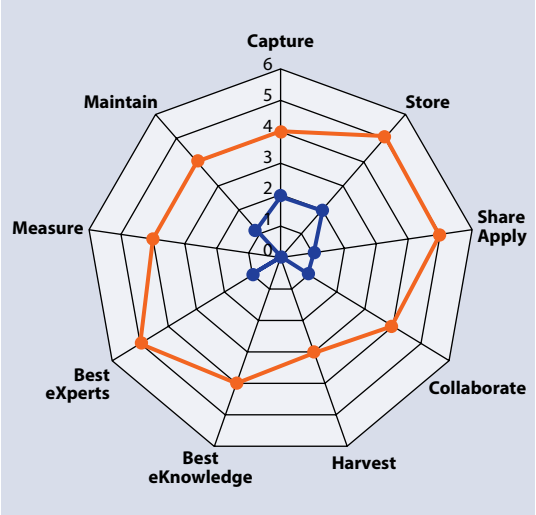
If the organization does not have a competency framework, the Knowledge Worker Competency Plan can be set up as a separate exercise.

Some organizations used balanced scorecards and knowledge competencies can be integrated into these systems. Knowledge competencies can also be integrated into business excellence models and knowledge excellence models and awards are beginning to emerge.

Example

The following competence maps are typical ways of tracking individuals' progress, starting at low levels of competence (blue) and moving outward to higher competence levels (red). The competence map on the left is for an individual and the one on the right shows the overall competence of all individuals within the organization.





Links

http://www.knowledge-management-online.com/Knowledge-competencies.html
http://kmefcompetenciescop.iwiki.kent.edu/file/view/KIM_dictionary_table1.pdf

22. Knowledge Mapping

What is knowledge mapping?

Knowledge mapping refers to the processes and tools for mapping the players, knowledge sources, flows, and constraints of knowledge within an organization. It is a visual representation of an organization's knowledge resources and flows. It is a navigation aid to both explicit and tacit knowledge, showing the importance and the relationships between knowledge stores and their dynamics. The final map can take multiple forms, from a pictorial display to a Yellow Pages directory, a linked topic or concept map, inventory lists, or a matrix of assets against key business processes.

It is a process by which organizations can identify and categorize knowledge assets within their organization: people, processes, content, and technology. It allows the organization to leverage existing internal expertise and identify barriers and constraints to fulfilling strategic goals and objectives. It builds a roadmap to locate the information needed to make the best use of resources, independent of source or form.

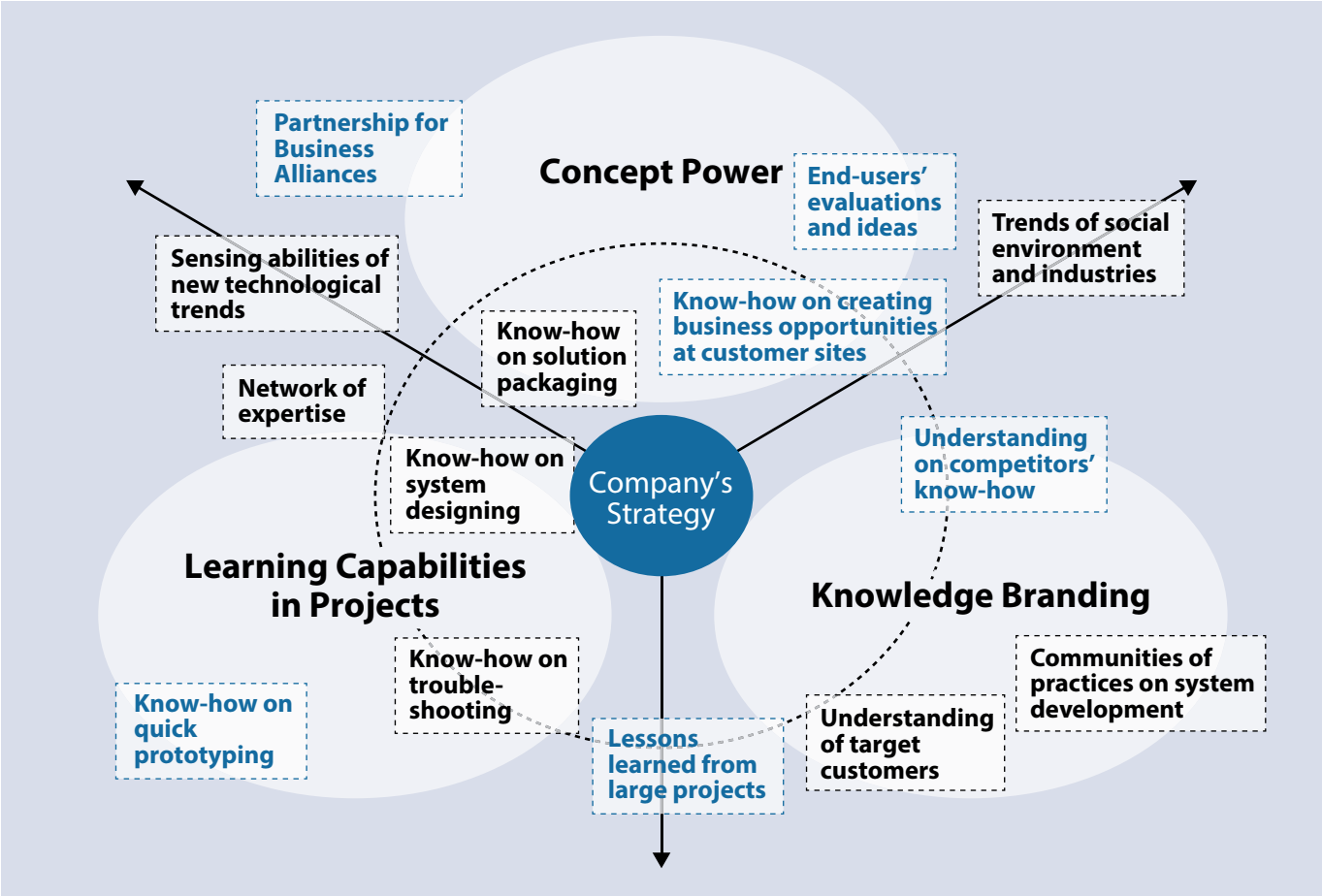
Thus the form of the knowledge map varies depending on the organization's knowledge strategy. If it focuses on codifying and reusing explicit knowledge, the map will be filled with explicit knowledge such as core documents, intranet contents customer transaction data, etc. If, on the other hand, the firm focuses on increasing individuals' capabilities, the map will consist of tacit knowledge such as social networks, etc.

Why knowledge mapping?

- To identify key sources, opportunities, and constraints to knowledge creation and flows
- To encourage reuse and prevent reinvention, saving search time and acquisition costs
- To highlight islands of expertise and suggest ways of building bridges to increase knowledge sharing and exchange
- To reduce the burden on experts by helping staff find critical solutions and information quickly
- To improve customer response, decision-making, and problem-solving by providing access to applicable information and internal and external experts
- To highlight opportunities for learning and leverage knowledge by defining the unique meaning of "knowledge" within that organization
- To garner support for new knowledge initiatives designed to improve the knowledge assets.

What does a knowledge map look like?

The following shows an example of a knowledge map.



This is just one example of knowledge mapping. Organizations have to create their own map based on their knowledge strategy. One of the typical mistakes made when knowledge mapping is going to extraordinary lengths to map existing information and knowledge flows at great cost. A knowledge map with too much information is not only expensive but also difficult to use. A good way to start knowledge mapping is to focus on the current important knowledge first, and if that is not adequate, then going deeper. Doing so tends to save much time and cost and may yield a better outcome.

Links

http://kmwiki.wikispaces.com/Knowledge+mapping
http://ezinearticles.com/?Knowledge-Mapping&id=9077
https://www.apqc.org/knowledge-base/Knowledge_Mapping

23. KM Maturity Model

What is a KM Maturity Model?

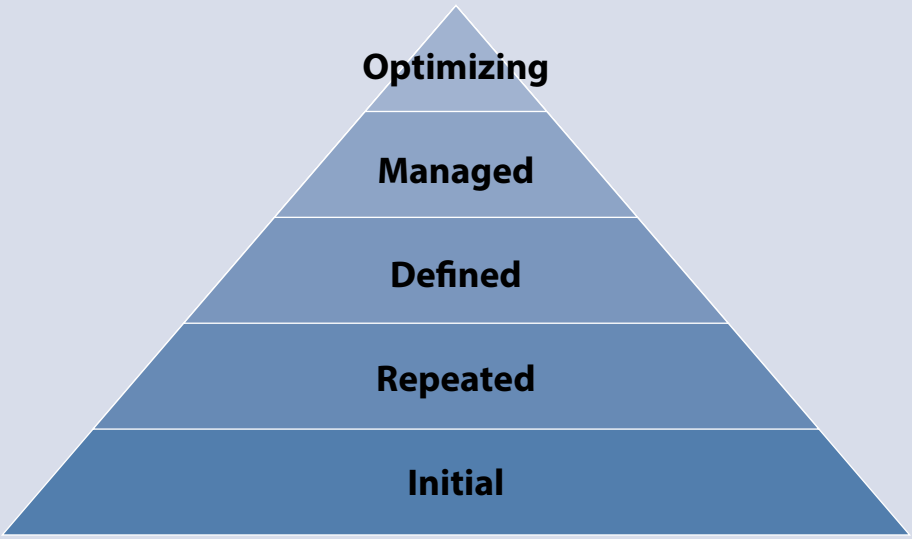
A KM Maturity Model helps an organization assess its relative progress in KM implementation at a more detailed level. It can be described as a structured collection of elements that describe different levels of KM maturity in an organization.

The Software Engineering Institute (SEI) at Carnegie Mellon University coined the phrase "maturity model" in developing the Capability Maturity Model Integration (CMMI). Several KM

Maturity Models have been developed, such as:

- APQC KM Maturity Model
- Siemens' KMMM
- KM Self-Assessment: Learning to Fly
- KM Assessment: David Skyrme Associates
- 5iKM3 KM Maturity Model: TCS

Most KM Maturity models copy the spirit of SEI's CMMI with five levels of maturity: initial, repeated, defined, managed, and optimizing as defined in CMMI



The five maturity levels of Knowledge Management

Ehms and Langen (2002) provide a useful definition of the five levels in the KM Maturity Model.

Maturity Level "Initial"

Processes are not consciously controlled; successful knowledge-related activities are seen as a stroke of luck and not as the result of goal-setting and planning.

Maturity Level "Repeated"

Organizations have recognized the importance of knowledge management activities for their business. Organizational processes are partly described as knowledge management tasks and, thanks to ideas from individual KM pioneers, pilot projects on KM typically exist.

Maturity Level "Defined"

Stable and practiced activities which effectively support the KM of individual parts of the

organization. These activities are integrated in the day-to-day work processes and the corresponding technical systems are maintained.

Maturity Level "Managed"

Indicators relating to the efficiency of these robust KM activities are measured regularly. The activities are established over the long term by organization-wide roles and compatible socio-technical KM systems.

Maturity Level "Optimizing"

The measuring instruments combine with other instruments for strategic control. There are no challenges left which cannot be solved with established knowledge management tools.

Why use a KM Maturity Model?

The KM Maturity Model provides an understanding of the KM maturity level of an organization based on adherence to a set of standard KM practices. The model provides an objective assessment of the current level of KM activities in the organization. It provides valuable information on the actions the organization should take to reach the next maturity level, in terms of knowledge management development. The model provides a natural progression for the organization to reach its KM maturity levels. In a way, the KM Maturity Model provides a foundation to build on a KM roadmap. The model does not show the duration for each maturity level. The length of time that an organization stays at a particular level may differ with organization to organization.

When to use this tool

The KM Maturity Model should be used when an organization wants to understand the level of maturity of its KM practices. The model should be used after the organization does a KM assessment. The APO KM Assessment tool can be used for this purpose. The tool identifies areas of strength and areas of an organization's KM practices that need improvement. Assessment results will provide information to help the organization understand its KM maturity level relative to the model. Thus the KM assessment tool and the maturity model provide useful information in assessing the state of KM in the organization and identify specific steps for developing its KM practices.

Links

www.kmmm.org
www.tcs.com/

24.Mentor/Mentee Scheme

What is a mentor/mentee scheme?

Mentoring is a work relationship between a senior and a junior organization member with an intentional agenda designed to transfer experience and learning. The mentor has experience and seniority in the organization and personally advises, counsels, coaches, and promotes the mentee's career development.

Mentoring is an intervention that has proven highly effective and that has become especially popular in recent years. Mentoring is an excellent vehicle for general corporate career development. It allows the mentor to transfer tacit knowledge to junior staff.

Mentoring is a form of knowledge sharing. It builds a caring, trusting culture. In terms of the knowledge creation cycle, it creates a space for people where they can internalize explicit knowledge through reflection on their experiences, throw ideas around in a safe socialization space, and work to verbally express what they know, i.e., externalize. The self-reflection that can result from a mentoring relationship can be a powerful growth experience and give new insights to both mentor and mentee.

Why use a mentor/mentee scheme?

The basic purpose of the scheme is to provide a mechanism for an informal interchange of knowledge and expertise between senior and junior staff in which help and advice for other than the normal day-to-day tasks and activities can be sought and suggestions and solutions offered.

Some businesses start a mentor/mentee program to help newcomers adjust; others use it as a method of leadership grooming. A mentor can help to "jump-start an employee's capability and ability to contribute to the organization.

When to use a mentor/mentee scheme

It is often used in organizations to prepare lower-level and mid-level managers for moving up the ladder. It is a leadership training program that goes beyond the training class to teach and model the desired skills/knowledge and behavior.

Mentoring can serve two distinct needs:

- Functional, technical and professional skills
- Soft skills

Key employees, by virtue of either their position in the company or their expertise, serve as mentors for skills development. Senior management serve as coaches to assist employees in the development of soft skills and also provide career guidance.

Resources

http://www.mentoringgroup.com/
Zachary, L.J. The Mentor's Guide: Facilitating Effective Learning Relationships. Jossey-Bass Inc.; 2000.
Knowledge Transfer Mentoring, Part 1: Why your KM strategy should include mentoring. KM World, September 2016.

25. Knowledge Portal

What is a knowledge portal?

The terms "information portal" and "knowledge portal" are often confused. An information portal is often described as a gateway to codified and digital information normally held in documents and databases to enable the user to have a single, simpler way of navigating towards the desired information. The information is normally structured and planned.

A knowledge portal, on the other hand, is far more than an information portal. A knowledge portal builds on an information portal. If information represents external and explicit knowledge, it

remains as information until the seeker/reader processes it, (the learning process) and integrates it into the seeker's tacit knowledge (inside the head).

Why use a knowledge portal?

A knowledge portal speeds up this process of learning and facilitates more effective transfer between tacit and explicit knowledge forms. A knowledge portal, as well as containing structured information, contains knowledge networks and communities, discussion forums, and collaborative workspaces, to better encourage, surface, and transfer a more spontaneous exchange of tacit knowledge.

A knowledge portal also normally contains an expertise locator, a sort of Who's Who directory to help people find and connect with experts.

A good knowledge portal is knowledge asset-centric. In other words, it is designed to allow knowledge workers to easily locate and work on the key knowledge assets within the key knowledge areas of the organization.

A knowledge portal supports the key strategic question that knowledge driven organizations must ask: What are the key areas of knowledge, and what are our key knowledge assets that, if we managed them better, would make a big difference to achieving our objectives?

When to use a knowledge portal

When the organization comes to the realization and wants to make the transition from being simply information-driven to becoming knowledge-driven and, more importantly, knowledge-led, it requires a knowledge portal to support that strategy.

Example

To explain the principle of becoming knowledge asset-driven, supported by an effective knowledge portal, consider the example of a container port in Asia that achieved world-class excellence over 25 years in container logistics.

This port could load and unload container ships more effectively than most competitors. It proudly implemented better knowledge management activities by developing a knowledge portal that was designed around automating the processes of container logistics. Knowledge working undoubtedly improved as a result. But senior management found it difficult to sleep. Mainland China was copying the container logistics processes and was able to offer the same services at almost half the price.

A knowledge management consultant assisted senior management by asking "What areas of knowledge, if you really could manage them better, would make a big difference to achieving your vision and objectives in five years' time?" The answer Senior management immediately answered, "World-class logistics is a given discipline and we must continue to strive to provide this service as best we can. But what we really need to know, starting now and over the next five years, is:

- Why will our customers want to continue to use containers?
- What will our customers put in them?

- Who will our customers be?

- How must we engage with our customers?

We need to develop customer knowledge as our key strategic knowledge area for the future. Only then can we survive and grow. Our customers contain the key knowledge and that will be our key asset for the future. This is the knowledge recipe for our future."

The knowledge portal was immediately redesigned around customer knowledge assets and, all the knowledge workers immediately made it their priority to focus on developing and navigating the portal to produce and apply customer knowledge.

The mindset became "What can we learn from our customers, who are our key stakeholders?" Secondly, logistics processes were continually improved. The organization, identifying and prioritizing its key knowledge assets required over the next five years, developed a customer-focused knowledge management strategy to transform from being logistics-led into becoming a customer knowledge-led service.

The knowledge portal acted as a catalyst that supported and facilitated the transition for the organization to become customer knowledge-led.

Links

Knowledge Portal at UNESCO at
http://portal.unesco.org/en/ev.php-URL_ID=15075&URL_DO=DO_TOPIC&URL_SECTION=201.html

Institute for Information Management at the University of St. Gallen, Switzerland Knowledge Portals at
http://www.isoc.org/inet2000/cdproceedings/7d/7d_2.htm

26. Video Sharing

What is video sharing?

In its simplest form, video sharing is the ability to publish video content either for a specific audience or for the entire world. In addition to sharing content, most hosting sites also allow some level of discussion.

Why use video sharing?

Video is an incredibly powerful medium for capturing, sharing, and consuming knowledge. The recent availability of inexpensive video cameras and PC-based editing software means that it is now practical for almost anyone to create videos ranging from simple "how to" instructions to recording presentations of complete conferences. Video sharing allows anyone, anywhere to experience the next best thing to being there.

How to use video sharing

1. Establish who your audience is

2. Work out what you want to communicate. For example, is it technical know-how or broad

concepts?

3. Find examples of people who are communicating that type of content. Ideally, find a style you like, and try to adapt it for your content.

4. Rehearse! Although your videos don't have to be up to Bollywood standards, rehearsing what you want to say or the workflow you want to capture makes a huge difference.

5. Use one of the simple video capture tools listed in the Links section below.

6. Create your first few videos; publish them appropriately, i.e., on your internal network if they are only meant for your colleagues, or on a service such as YouTube, if they are meant for the wider world.

7. Solicit feedback and revise your content accordingly

When/when not to use video sharing

Video is an appropriate medium to use whenever you need to show something. The thing you are showing might simply be the expression on a person's face, or it could be the correct way to use a complex piece of software. In general, the maxim "show us, don't tell us" is an important rule for communication, and video is the obvious way to do this.

However, there are some situations where using video may be inappropriate. For instance:

1. Video files are significantly larger than audio files. This means that people on low bandwidth connections will have difficulty watching a video stream.

2. Video is essentially a serial medium. It can be clumsy to try to flick back and forth between scenes in a video. Therefore, if your audience needs to have easy access to all the content, it may be more appropriate to provide the information in text form. For example, instructions for repairing a machine are probably best given in the form of a manual

3. Even with very simple editing tools, creating video is still a time-consuming process. Therefore, if the information is likely to change frequently, it may be more cost-effective to leave it in textual form.

YouTube.com allows its users to create channels. A channel is a way of grouping a collection of videos.

Links

- Flip video camera http://www.theflip.com/fr-fr/

- Video Cue (Mac) http://www.telestream.net/video-cue/overview.htm

- Visual Communicator (Windows) http://www.adobe.com/products/visualcommunicator/

- Youtube http://www.youtube.com

APPENDICES

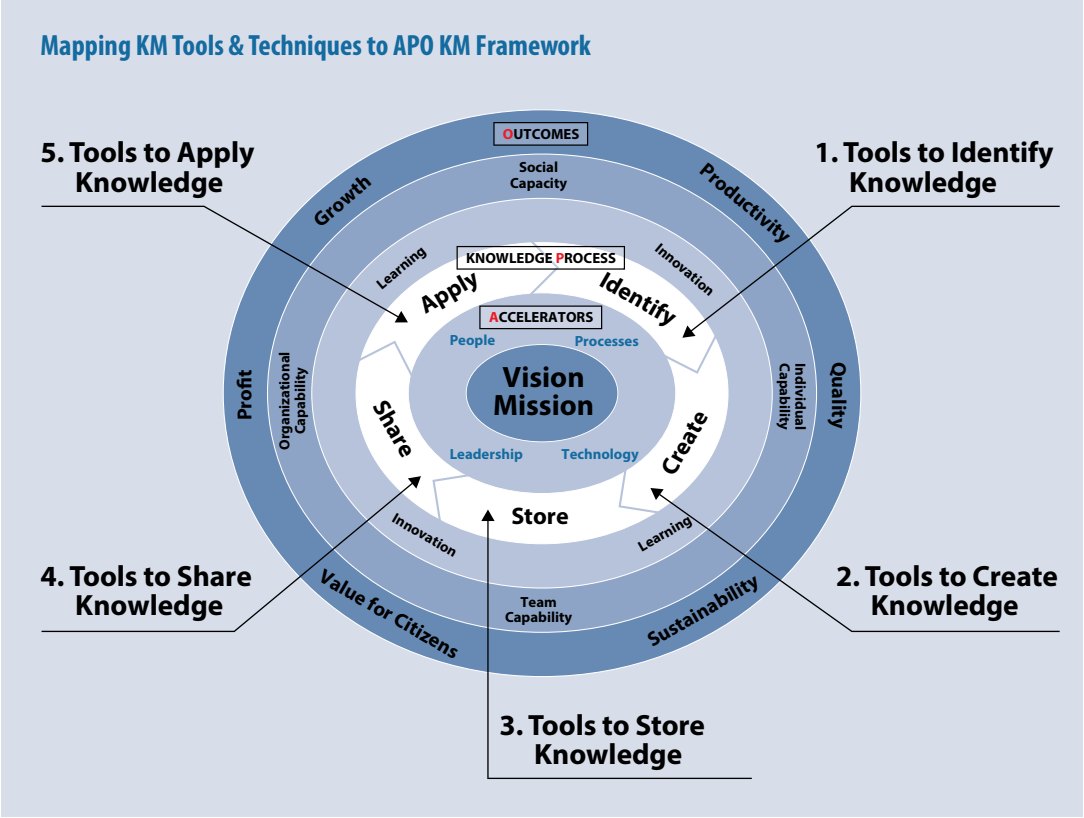
Appendix A
KM Tools and the APO KM Framework

Mapping to the APO KM Framework

Earlier in this manual, we described how the KM methods and Tools can be linked to the APO Five-Step KM Process to

1. Identify
2. Create
3. Store
4. Share and
5. Apply Knowledge.

This Five-Step Process is a key part of the overall APO KM Framework illustrated below and is embedded within the Framework, shown below in white.



The table below maps all the tools mentioned in this book to the APO Five-Step KM Process.

Sl. No.	KM Methods and Tools to consider (guide only)	Identifying knowledge	Creating knowledge	Storing knowledge	Sharing knowledge	Applying knowledge
1	Brainstorming		X			
2	Learnings and Ideas Capture		X			
3	Peer Assist				X	X
4	Learning Reviews		X	X	X	
5	After Action Reviews		X	X	X	
6	Storytelling				X	
7	Collaborative Physical Workspaces		X		X	X
8	APO Knowledge Assessment Tool	X				
9	Knowledge Café	X	X	X	X	X
10	Communities of Practice	X	X	X	X	X
11	Cloud Computing	X	X	X	X	X
12	Document Libraries			X	X	X
13	Knowledge Bases (Wikis, etc.)		X	X	X	X
14	Blogs		X	X	X	X
15	Social Network Services				X	
16	Video Communication and Webinars		X	X	X	
17	Advanced Search Tools	X	X			X
18	Building Knowledge Clusters	X	X	X	X	X
19	Expertise Locator/Who's Who	X	X	X	X	X
20	Collaborative Virtual Workspaces	X	X	X	X	X
21	Knowledge Worker Competency Plan					X
22	Knowledge Mapping	X				
23	KM Maturity Model	X				
24	Mentor/Mentee Scheme	X	X		X	X
25	Knowledge Portal		X		X	X
26	Video Sharing		X		X	

More detailed information about the latest APO KM Framework can be found in "08. APO Knowledge Assessment Tool" in this manual.
The implementation of the latest APO KM Framework can be found in the APO publication "Knowledge Management: Facilitators' Guide."
www.apo-tokyo.org

Appendix B
APO KM Assessment Tool

KM Readiness Assessment: STRENGTHS AND OPPORTUNITIES FOR IMPROVEMENT MATRIX				
Sr. No.	**Cat 1.0: KM Leadership**	**Strength**	**OFI**	**Rating (1–5)**
1	The organization has a shared Knowledge Vision and Strategy strongly linked to its vision, mission, and goals.			
2	Organizational arrangements have been undertaken to formalize KM initiatives (i.e., central coordinating unit for knowledge/information management, Chief Knowledge/Information Officer, ICT team, quality improvement teams/ Communities of Practice, knowledge networks).			
3	Financial resources are allocated for KM initiatives.			
4	The organization has a policy for safeguarding knowledge (i.e., copyrights, patents, KM, and knowledge security policy).			
5	Managers role-model the values of knowledge sharing and collaborative working. They spend more time disseminating information to their staff and facilitating the horizontal flow of information between their staff and with staff of other departments/divisions/units.			
6	Management promotes, recognizes, and rewards performance improvement, organizational and employee learning, sharing of knowledge, and knowledge creation and innovation.			
			CONSOLIDATED SCORE	

KM Readiness Assessment: STRENGTHS AND OPPORTUNITIES FOR IMPROVEMENT MATRIX				
Sr. No.	**Cat 2.0: Processes**	**Strength**	**OFI**	**Rating (1–5)**
7	The organization determines its core competencies (strategically important capabilities that provide a competitive advantage) and aligns them with its mission and strategic goals.			
8	The organization designs its work systems and key processes to create value to customers and achieve performance excellence.			
9	New technology, knowledge shared in the organization, flexibility, efficiency, and effectiveness are factored into the design of processes.			
10	The organization has an organized system for managing crisis situations or unforeseen events that ensures uninterrupted operations, prevention, and recovery.			
11	The organization implements and manages its key work processes to ensure that customer requirements are met and business results are sustained.			
12	The organization continually evaluates and improves its work processes to achieve better performance, reduce variations, improve products and services, and keep updated on the latest in business trends, developments, and directions.			
			CONSOLIDATED SCORE	

KM Readiness Assessment: STRENGTHS AND OPPORTUNITIES FOR IMPROVEMENT MATRIX				
Sr. No.	**Cat 3.0: People**	**Strength**	**OFI**	**Rating (1–5)**
13	The organization's education, training, and career development programs build employee knowledge, skills, and capabilities, support achievement of overall objectives, and contribute to high performance.			
14	The organization has a systematic induction process for new staff that includes familiarizing them with KM and its benefits, the KM system, and tools.			
15	The organization has formal mentoring, coaching, and tutoring processes.			
16	The organization has a database of staff competencies.			
17	Knowledge sharing and collaboration are actively encouraged and rewarded/corrected.			
18	Employees are organized into small teams/groups (i.e., quality circles, work improvement teams, cross-functional teams, Communities of Practice) to respond to workplace problems or concerns.			
			CONSOLIDATED SCORE	

KM Readiness Assessment: STRENGTHS AND OPPORTUNITIES FOR IMPROVEMENT MATRIX				
Sr. No.	**Cat 4.0: Technology**	**Strength**	**OFI**	**Rating (1–5)**
19	Management has established an IT infrastructure (i.e., Internet, intranet, and website) and has developed capabilities to facilitate effective KM.			
20	The IT infrastructure is aligned with the organization's KM strategy.			
21	Everyone has access to a computer.			
22	Everyone has access to the Internet/intranet and has an email address.			
23	Information delivered on the website/intranet is updated on a regular basis.			
24	An intranet (or similar network) is used as a major source of organization-wide communication to support knowledge transfer or information sharing.			
			CONSOLIDATED SCORE	

KM Readiness Assessment: STRENGTHS AND OPPORTUNITIES FOR IMPROVEMENT MATRIX				
Sr. No.	**Cat 5.0: Knowledge Process**	**Strength**	**OFI**	**Rating (1–5)**
25	The organization has systematic processes for identifying, creating, storing, sharing, and applying knowledge.			
26	The organization maintains a knowledge inventory that identifies and locates knowledge assets or resources throughout the organization.			
27	Knowledge accrued from completed tasks or projects is documented and shared.			
28	Critical knowledge from employees leaving the organization is retained.			
29	The organization shares best practices and lessons learned across the organization so that there is no constant reinventing of the wheel and work duplication.			
30	Benchmarking activities are conducted inside and outside the organization, the results of which are used to improve organizational performance and create new knowledge.			
			CONSOLIDATED SCORE	

KM Readiness Assessment: STRENGTHS AND OPPORTUNITIES FOR IMPROVEMENT MATRIX				
Sr. No.	**Cat 6.0: Learning and Innovation**	**Strength**	**OFI**	**Rating (1–5)**
31	The organization articulates and continually reinforces the values of learning and innovation.			
32	The organization regards risk-taking or committing mistakes as learning opportunities so long as they do not occur repeatedly.			
33	Cross-functional teams are organized to tackle problems/concerns that cut across the different units in the organization.			
34	People feel empowered and feel that their ideas and contributions are generally valued by the organization.			
35	Management is willing to try new tools and methods.			
36	Individuals are given incentives to work together and share information.			
			CONSOLIDATED SCORE	

KM Readiness Assessment: STRENGTHS AND OPPORTUNITIES FOR IMPROVEMENT MATRIX				
Sr. No.	**Cat 7.0: Outcomes**	**Strength**	**OFI**	**Rating (1–5)**
37	The organization has a history of (and maintains measures for) successfully implementing KM and other change initiatives.			
38	Measures are in place for assessing the impact of knowledge contributions and initiatives.			
39	The organization has achieved higher productivity through reduced cycle time, bigger cost savings, enhanced effectiveness, more efficient use of resources (including knowledge), improved decision-making, and increased speed of innovation.			
40	The organization has increased its profitability as a result of productivity, quality, and customer satisfaction improvements.			
41	The organization has improved the quality of its products and/or services as a result of applying knowledge to improve business processes or customer relationships.			
42	The organization has sustained growth as a result of higher productivity, increased profitability, and better quality product and services.			
			CONSOLIDATED SCORE	

Appendix C
Some Recommended KM Websites, KM Blogs and KM Books

KM Websites

www.apqc.org
http://en.wikipedia.org/wiki/Knowledge_management
www.knowledge-management-online.com
http://www.library.nhs.uk/KnowledgeManagement/
http://www.brint.com/km/
http://www.kmworld.com/
http://knowledgemanagement.ittoolbox.com/
http://www.apo-tokyo.org
http://www.skyrme.com
http://www.gurteen.com
http://www.ikmagazine.com/
http://www.chriscollison.com

LinkedIn Groups

Knowledge Management
Knowledge Managers
CKO (Chief Knowledge Officers') Forum
Knowledge Management Best Practices
KM Practitioners Group
Asian KM Leaders

KM Blogs

http://km-consulting.blogspot.com
http://www.kmedge.org/
http://apintalisayon.wordpress.com/
http://kmwiki.wikispaces.com/KM+bloggers
http://www.knowledge-management-online.com/KM-Blogs.html
http://knowledgeproductivity.blogspot.com

KM Books

1. Milton N., Lambe P. The Knowledge Manager's Handbook: A Step-by-Step Guide to Embedding Effective Knowledge Management in your Organization. Kogan Page Ltd.; 2016.

2. Barnes S., Milton N. Designing a Successful KM Strategy: A Guide for the Knowledge Management Professional. Information Today Inc.; 2014.

3. O'dell C., Hubert C. The New Edge in Knowledge: How Knowledge Management Is Changing the Way We Do Business. Wiley; 2011.

4. Leonard-Barton D., Swap W. C. Critical Knowledge Transfer Tools for Managing Your Company's Deep Smarts. Harvard Business Review Press; 2014.

5. Hunter B.N. The Power of KM: Harnessing the Extraordinary Value of Knowledge Management. Spirit Rising Productions; 2016.

6. Mentzas A., Apostolou D., Abecker A., Young R. Knowledge Asset Management —Beyond the Process-Centered and Product-Centered Approaches. Springer; 2003.

7. Stewart T. A. The Wealth of Knowledge, Intellectual Capital and the Twenty-First Century Organization. Doubleday Business; 2001.

8. Collison C., Parcell G. Learning to Fly: Practical Knowledge Management from Leading and Learning Organizations. Capstone; 2004.

9. Davenport T.H., Prusak L. Working Knowledge: How Organizations Manage What They Know. Harvard Business Review Press; 1998

10. Nonaka I., Takeuchi H. The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation. Oxford University Press; 1995.

11. Stewart T.A. Intellectual Capital: The New Wealth of Organizations. Doubleday Business; 1997.

12. Wenger E. Communities of Practice: Learning, Meaning, and Identity. Cambridge University Press; 1998.

13. Mertins K., Heisig P., Vorbeck J., eds. Knowledge Management: Concepts and Best Practices. Springer; 2003.

14. O'dell C., Grayson J. If Only We Knew What We Know: The Transfer of Internal Knowledge and Best Practice. Free Press; 1998.

And finally, if you want to better understand the global knowledge economy and effective knowledge working, you simply must read "What Would Google Do?," a remarkable book with incredible insight and some simply amazing opportunities for all of us within a rapidly growing global knowledge economy.

END

SUSTAINABLE PRODUCTIVITY

THE NEW FRONTIER FOR PRODUCTIVITY

Bangladesh
Cambodia
Republic of China
Fiji
Hong Kong
India
Indonesia
Islamic Republic of Iran
Japan
Republic of Korea
Lao PDR
Malaysia
Mongolia
Nepal
Pakistan
Philippines
Singapore
Sri Lanka
Thailand
Vietnam

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