Personal Knowledge Management: Managing Information Overload

A Workshop for
UCLA Professional Development Program
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Where is the Life
we have lost in living?
Where is the wisdom
we have lost in knowledge?
Where is the knowledge
we have lost in information?

Where is the information
we have lost in data?

T.S. Eliot, Choruses from "The Rock," I
Collected Poems 1909-1919
What do knowledge workers have in common...

- Have multiple roles
- Busy
- Make key decisions with major impact
- Dependent on others for information
- Others are dependent on them for information

Workshop Goals

- Provide the time to think about managing the information in your life
- Increase your effectiveness as a manager of your personal information and knowledge
- Offer tools/strategies to manage information overload
PKM Roles
Knowledge acquisition
PKM Map
Information Overload
Coping Strategies

Workshop Roadmap

DATA
091200DL5508201430
Information

Date 091200
Flight DL55
Departure 0820
Arrival 1430

Knowledge

But flight 55 is always late, you’ll miss you meeting!
Wisdom

It doesn’t really matter!

Do you agree?

- begin with data
- add context to get information
- add understanding to get knowledge
- add judgment (values) to get wisdom

Your Intellectual Capital
Data - Personal Capital Continuum

Value point

Your Intellectual Capital:
Build your value through Personal Knowledge Management

Mick Cope, Know Your Value, 2000

Personal Knowledge Management (PKM) Overview

- A system designed by an individual for his or her own use
- Facilitates knowledge acquisition
- Assists in managing information overload
PKM What?

• A conceptual framework to approach, organize and integrate information that we, as individuals, feel is important so that it becomes part of our personal knowledge (and capital)

• Strategies for managing (i.e. working with, using, etc) information so that can be transformed from (what may be) random bits into something that expands our personal knowledge

Personal Task Management Tools

• “To do” list
• Calendar
• Address book
• Appointment book
• Personal Digital Assistant (primitive)
• Time management techniques
PKM: How?

- Identify your Roles as a way to think about your knowledge and information you work with
  - Manage information in the context of your Roles
  - Conceptualize information in the context of your Roles
- Use your Roles as the basis for creating a hierarchical structure
  - Brings “like and kind” material together in one category so it is easier to search
  - Use the hard disk of your computer as a tool in this process
- Use your structure as a tool for storing, finding and retrieving information that relates to your Roles
- Create a PKM Map to identify your strategies for working with information (information behavior strategies)
  - Use these strategies to help you integrate new information/ideas into your personal knowledge

Roles, Functions and Commitments

- Roles describe “who you are”
  - Roles are the “hats you wear” (e.g. manager, analyst, student, parent, etc.)
  - Roles generally evolve over time, but don’t change very often
- Functions are responsibilities which come with a Role
  - What you do/what is spelled out in a job description, e.g. parental role has responsibility such as feeding your kids and managerial role entails evaluating your employees
- Commitments are obligations which you accept for yourself with each Role
  - You can enter into commitments with yourself, family members, co-workers, friends, etc., and abstract entities (your country, religion, etc.)
Commitments and Functions

- More dynamic than Roles
- Can be identified as projects, people, courses, tasks, etc.

$$\text{functions} = \text{commitments}$$

Roles, Functions, Commitments
(Using Aura as an example)

**Now**
- Librarian
  - Reference
  - Online tutorials
- Professional
  - Conferences
  - Memberships
- ACIS
  - Web Council
- Personal
  - Wife
  - Daughter
  - Hobbies

**Future**
- Student
- Instructor
- Manager
Activity 1: Identify Your Roles

- On the worksheet, name your current Roles
  - You may also identify future Roles (i.e., desired roles or career objectives)

- For each Role, identify one or two current Functions and/or Commitments
  - This may assist you in identifying how you are strategically using your time and energy
Activity 1: Personal Information Architecture

Implementation Tips

- Use the hard drive of your computer as a place to model your Roles, Functions and Commitments
- Set up a parallel folder structure on ALL of your computers
- Recreate the folder structure EVERYWHERE you encounter information...
  - paper and e-documents, email and snail mail, Web bookmarks, in your office, your home, and on the road!
- Transitioning
  - Put old files into one folder
  - Create new folder structure and add all new files to it
  - Move old files as accessed to the new structure
Knowledge Acquisition Framework Overview

- The knowledge acquisition or learning process can be represented by a knowledge spiral.
- As we move through the knowledge spiral, we employ a set of information behaviors.
- These information behaviors are influenced by the specific environments in which we are acquiring knowledge.
What is Knowledge? (some attributes)

- No law of diminishing returns -- unlimited resource; never run out of “raw” materials
- Knowledge grows from sharing (and giver frequently becomes even more knowledgeable)
- Communication and personal chemistry critical in knowledge processes

Two Types of Knowledge

**Tacit (Subjective) Knowledge**
- Insights, intuitions, and hunches
- Knowledge of experience (body)
- Not easily visible and expressible
- Highly personal, hard to formalize, difficult to communicate or share with others
- Rooted in individual’s actions and experiences, including ideals, values, or emotions

**Explicit (Objective) Knowledge**
- Formal and systematic
- Knowledge of rationality (mind)
- Can express in words and numbers
- Easily communicated and shared in form of hard data, formula, codified procedures, or universal principles
- Can be expressed in computer code, chemical formula, sets of general principles


Knowledge Transfer

- Tacit → Explicit
- Explicit → Tacit
- Socialization
- Externalization

Knowledge Spiral: A Learning Model

- Tacit → Explicit
- Explicit → Tacit
- Socialization
- Externalization
- Internalization
- Combination

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Knowledge Spiral: A Learning Model


Information Behaviors

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Knowledge Management Challenge

"I call my field knowledge management, but you can't really manage knowledge. What a company can do is manage the environment that optimizes [the acquisition of] knowledge."

- Larry Prusak, IBM Global Services Consulting, 1998

So, how do you optimize knowledge acquisition?
Know your environment!

Knowledge Management in Context

- Effective [personal] knowledge management is a result of the “fit” between the environment/culture, the content/situation, and information behavior strategies.

Adapted from David W. De Long, "Identifying Effective Information Behaviors -- An Exploratory Study, Ernst & Young Working Paper, August 1993"
Individual Information Handling Skills (Information Behavior Strategies)

- Have a strategy for assessing your information needs for each situation
- Have a strategy for acquiring the information you need at any decision point
- Have a strategy for finding information stored for future use
- Have a strategy for purging the old and invigorating the new
- Have a way of differentiating "good" from "bad" information

Application of strategies is left to the individual!

### Strategies for Researcher Role

**Acquiring/Creating**
- E.g. Searching/Discovery
- Retrieving/Inventing
- Attending seminars
- Scanning key journals
- Forward thinking discussion groups
- Active listening
- Thinking aloud

**Storing/Filing**
- E.g. Classifying/Indexing
- Filing/Naming things
- Making distinctions
- Set up file structure
- Periodically assess file structure
- Have version control mechanism
- Have naming conventions

**Evaluating/Assessing**
- E.g. Editing/Changing
- Deleting/Unlearning
- Challenge ideas and assumptions
- Seek feedback from peers
- Question material not looked at for long time
- Revising strategies and approaches

**Sharing/collaborating**
- E.g. Clarifying/Interpreting
- Integrating/Relating
- Refining/Enhancing
- Question each other/seek clarification of ideas
- Give/seek opinions and advice
- Be an active listener
- Be a facilitator and participant at different times
- Brainstorm

**Disseminating/Publishing**
- E.g. Packaging for market
- Readying for consumption
- Distributing
- Prepare drafts and publish papers
- Make presentations
- Create Web sites

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Activity 2: PKM Map
Making our information behaviors more explicit

- On the next page is a blank PKM Map. Select one of your Roles (activity 1). Complete the map by evaluating your information behaviors within that Role.
- Answering the questions will help you identify strategies for acquiring knowledge, problem solving and making decisions in that Role.
- Notes:
  - The questions posed are meant to be an aid, not a comprehensive list
  - It is sometimes useful to think of strategies for specific Functions or Commitments (e.g., tasks or projects), rather than broader Roles
  - You can use the “tips” to help generate strategies for each information behavior
  - Try to think out of the box about strategies you might do, but don’t now
  - Consider this to be an evolving list of strategies that facilitate building your personal knowledge

Current Strategies | Future Strategies
--- | ---
**Acquiring/Creating:** How do you keep yourself current? List your strategies.

**Storing/filing:** How effective is your memory as a storage system? List your strategies for dealing with this.

**Evaluating/Assessing:** Have you developed your capability to get rid of unused or old information? List your strategies.

**Sharing/collaborating:** How do you tap the knowledge of others? List your strategies.

**Disseminating/publishing:** How do you make others aware of your knowledge? List your strategies.

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**Acquiring/Creating Tips**

- Clarify your information needs (vary by role & project)
  - What are your goals, priorities, and critical decisions?
  - What information & knowledge do you need to support them?
- Develop a sourcing strategy
  - What are the best content sources, including people, for each of your information needs?
  - What periodicals or databases should you scan regularly?
  - Are your sources accessible when you need them?
- Clarify what you want “pushed” to you and what you want to “pull” as needed
  - Which projects require alerts when information changes?
  - When is it more efficient to err on the side of just-in-time pull rather than everything displayed?
- Use technology as an aid
  - Filters, e.g. email filters
  - “personal search” engines

**Storing/Filing Tips**

- Organize from the general to the more specific, putting items into narrowest (most specific) category
- If a file logically fits into more than one folder
  - put a short cut to the file in each appropriate folder
  - DON’T create multiple copies!
- Create new categories using the rule of 7±2 items

Adapted from David Skyrme, The Knowledge Networker’s Toolkit (Butterworth-Heinemann, 1999)

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Naming Tips

Build your system, then stick to it!

- Use meaningful names and abbreviations you can recognize a few months from now
- Make names brief but complete enough to be able to identify content
- Use name abbreviations, file extensions, etc., in a consistent manner
- When working in a team, agree upon naming conventions at the outset
  - e.g., add draft numbers to file names as revisions are made

Evaluating/Assessing Tips

- Work out how and when to process information
  - With incoming information, you can read it immediately, file it or trash it
  - Using software filters to automatically process incoming electronic information turns push into pull
- Set criteria for what you want to file and save
  - Why do you want to keep it? Is it a seminal article, essential reference material or work in progress? For most of the rest, rely on the Internet and other sources that allow access to what you need when you need it
- Review your information periodically
  - Prune ruthlessly based on use
  - If you don't access a file within a time limit, then don't keep it

Adapted from David Skyrme, "The Knowledge Networker's Toolkit" (Butterworth-Heinemann, 1999)
Evaluating/Assessing Tips for Web Based Sources: Organization, Accuracy & Quality

- Be aware that a site may not be complete or accurate
- Note when the site was last revised
- Determine the authority or expertise of the individual or group responsible for the site
- Not everything is on the Web! And not everything on the Web is free! You will continue to rely on other electronic and printed resources

Sharing/Collaborating Tips

- Set up regular feedback/discussion sessions with peers
- Attend conference/socialization events
- Selectively participate in bulletin boards, listservs, chat rooms, etc
We live in a sea of data, and we have ready access to information.

Our challenge is knowledge and its management…

and information overload is the process of being drowned by all this!
Having more relevant information than can be assimilated in the time available

Being burdened with a large supply of unsolicited information, some of which may be relevant

Point where there is so much information that it is no longer possible to use it effectively

Information overload is a state-of-mind


Information Behavior Contexts

- Decisions
- Problem solving
- Field building

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A Decision Scenario

The impacts and consequences of decisions may be modified as new information is introduced. However, some actions are not reversible once a decision is made!

We need the best possible information as close to the decision point as possible.

Information -> Decision Point -> Action

Decision Point

Information Overload

Outcomes

- Affects decision making and knowledge acquisition
- Makes keeping track of information difficult
- Volume of information degrades value due to redundancy and noise
- Pressures to multi-task
- Sense of loss of control

Steps to remedy the situation

- Systematically employ the strategies identified in your PKM Map
- Actively use coping mechanisms as strategies

In Looking for Information: A Survey of Research on Information Seeking, Needs and Behavior, by Donald O. Case, 2002:

- Ceasing: stop working with information before objective is reached
- Convenience: processing information readily at hand
- Filtering: looking at information at a higher level; putting items into categories prior to working with the information itself
- Generalizing: drawing broad conclusions from minimal information; categorizing inputs and responses with less precision
- Procrastinating: thinking about it, but putting it off

Note: Case identified nine responses: the five above plus errors (processing information incorrectly), ignoring (walking away), omitting (temporary non-processing), and queuing (delaying processing).
Activity 3: Information Overload
Coping Strategies

• For each coping mechanisms, evaluate how it can be used as a positive strategy
  – Identify personal examples when you could use and benefit from a strategy.
  – Is there a strategy that you use often that does not work? How can you modify that strategy to be more effective, or is there another strategy that would be more effective?

Information Overload Coping Strategies

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Description</th>
</tr>
</thead>
<tbody>
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### Personal Knowledge Management

<table>
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<tr>
<td>Conceptualize</td>
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</tr>
<tr>
<td>Model</td>
<td>Personal Information Architecture</td>
</tr>
<tr>
<td>Develop (Map)</td>
<td>Strategies/skills (Information and Technology Literacy)</td>
</tr>
<tr>
<td>Apply!</td>
<td>Acquire knowledge, make decisions, solve problems &amp; avoid information overload!</td>
</tr>
</tbody>
</table>

“[Personal] knowledge management is ultimately about choice -- choice of which paper to read, which book to borrow from the library, which Internet site to browse, or which product to take to market.”