

# Knowledge Management Models and Theories

V1.0 Feb 2022

The Pathfinder guides are introductions to a subject area in the Knowledge & Information Management (K&IM) field, to support new practitioners access good quality knowledge and support from their industry peers. We hope you enjoy this selection of the CILIP K&IM Committee's favourite resources and links.

## Overview : “All models are wrong, but some are useful”.

This section gives an introduction to a number of useful mental models to understand what knowledge is, and how it is managed. This will help devise strategies that consider the nature of how knowledge flows.

Stan Garfield has categorised many more than are discussed here. [KM Topics](#) | [100 Knowledge Management Specialties, 50 KM Components](#) We also recommend referring to the K&IM Introduction to KM Pathfinder guide for a broader introduction and recommended texts.

## What is Knowledge?

### Data, Information, Knowledge

A useful model is to consider the separation of data, information, and knowledge. An early (and now less used) model is the Data, Information, and Knowledge pyramid. The definitions below might help you consider the dimensions of data, information, and knowledge, and how they might be approached.

[https://en.wikipedia.org/wiki/DIKW\\_pyramid](https://en.wikipedia.org/wiki/DIKW_pyramid)

Whilst this is a useful initial model, the concept of “wisdom” is now largely rejected by the Information and Knowledge communities. Also, the pyramid suggests higher levels of value are created as we move up the pyramid. With advances in “big” data and AI, this model has shifted to be more equal.

CILIP's webinar by Judy Payne “[KM and IM – why we confuse them and why we shouldn't](#)” is a useful overview of the two adjacent disciplines of KM and IM.

### Categorisation of knowledge with attributes

When thinking about knowledge, like a file on your computer, it can be described with different attributes that can help think about how you handle and use the knowledge. The list below is not exhaustive by any means

- Age
- Applicability
- Actionability
- Domain
- Flows
- Importance
- Location
- Measurability
- Modes
- Perishability
- Source

**Tacit / Explicit or Codified/uncodified:** Perhaps one of the most important classifications is whether the knowledge is whether it is codified or uncodified. Sometimes this is used to describe whether something is in people's head full of context and assumptions vs written down in a standard or guide. Nick Milton discusses why [ISO30401 – Knowledge Management Systems](#) uses codified vs uncodified at the link below.

<http://www.nickmilton.com/2020/10/tacit-explicit-and-what-different-types.html>

## Knowledge Flows

Knowledge flows when there is a donor/sharer (someone who has the knowledge), and a recipient/learner (someone who need the knowledge). Donor and recipient sources can be written down, or be people.

*For knowledge to be useful, it must flow. For knowledge to flow, there must be a donor, and a recipient* **KM Proverb**

### Knowledge flows from Tacit to Explicit:

Based on the knowledge dimensions of tacit (in heads), and explicit (documented), and the flow of knowledge from a donor medium to a recipient medium, the SECI model (1990) sought to codify different types of knowledge transfer. [SECI model of knowledge dimensions - Wikipedia](#)

- Socialisation: Knowledge flow from tacit to tacit sources
- Externalisation: Knowledge flow from tacit to explicit sources
- Combination: Knowledge flows from combining explicit sources
- Internalisation: Knowledge flows from explicit sources to Tacit understanding.

**Known knowns, known unknowns, unknown knowns, and unknown unknowns**

This is the prospect that we do not always know everything.

Known knowns are what we know we know, e.g. I know my name is Rory.

Known unknowns include things we don't know, for example, I know I don't know about data management, but I know the field of data management exists, so I could go and find out about it.

Known Knowns	Unknown Knowns
Known Unknowns	Unknown Unknowns

Unknown unknowns are blind spots that could cause errors. KM tactics like show and tells, and knowledge café's help us to understand what we don't know, moving unknown unknowns into known unknowns.

The aim of good knowledge management is to ensure we either know what we need to know, we know who we can ask to find out things we don't know, and that we move unknown unknowns into the known unknowns, so we can resolve any important knowledge gaps.

Unknown knowns cover things we might not know we know. We might describe this as implicit knowledge.

**Learn before, during, and after (NHS)**

The UK's National Health Service has a useful knowledge mobilisation framework, which demonstrates knowledge sharing, development and reuse is a continuous process:

- Learn before – Techniques such as peer assist, appreciative enquiry, before action reviews
- Learn During – After action reviews, knowledge cafes, communities of practice, action learning sets
- Learn after – Knowledge harvesting, retrospect etc.

This CILIP K&IM Webinar explains the framework, with an NHS resources link too.

[Enabling the NHS workforce to incorporate knowledge mobilisation techniques into daily practice NHS Knowledge Mobilisation Framework | Knowledge and Library Services \(hee.nhs.uk\)](#)

**KM Tactics to help make knowledge flow**

We will link to and develop tool kits over the coming years for different popular tactics in KM. This video from the Knowledge Architecture (KA) Connect features a periodic table of common tactics used in KM is useful to describe the landscape of possible KM tactics. Many more emerge every day. <https://www.knowledge-architecture.com/ka-connect-talks/tag/Periodic+Table>

**Useful change management models for KM programmes**

Change management is a parallel discipline to knowledge management, but many practices are required to make successful change management stick. This video on change from a KM perspective may be useful: [Making your change programmes stick - YouTube](#)

**Technology Adoption life Cycle:** When observing change, it can be interesting to consider the types of people involved. The [Technology adoption life cycle - Wikipedia](#) discusses the presence of innovators, early adopters, early majority, late majority and laggards. The different personality types have different characteristics, which can be useful. Of note is that a person may be innovative in only one area, and a laggard in others!

**Hype Cycle:** Change can take a long time to implement. Large programmes may take up to 2 years from launch to fully embed in a business. The Hype Cycle is an interesting model to consider how your programme is going over time, particularly when linked to the technology adoption life cycle. [https://en.wikipedia.org/wiki/Gartner\\_hype\\_cycle](https://en.wikipedia.org/wiki/Gartner_hype_cycle)

**Kotter's 8 Steps of Change model:** This is a useful model to consider when adopting change, such as introducing a new knowledge management programme or initiative into a business. This model tends to focus on top down implementation, as opposed to the journey of the individual, which is taken more into account in the ADKAR model. <https://www.kotterinc.com/8-step-process-for-leading-change/>. The steps align closely with the [University of Warwick's CoP recommendations](#).

**Prosci's ADKAR Model** Awareness > Desire > Knowledge > Ability > Reinforcement. This method could be considered marketing a change, e.g. ensuring that you make the users aware, make the change desirable for them (e.g. Whats in it for me), and give them the knowledge and ability to make the change. <https://www.prosci.com/methodology/adkar>:

## Learning Models & Communication

### **Awareness > Knowledge > Experience > Capability > Expertise > Thought leader**

To have expertise, one must go through the steps of being aware of what the subject is, seeking knowledge on it, applying that knowledge through experience, developing the capability to deploy the knowledge in real world environments, develop a capability, then move into expertise.

### **70:20:10 Adult Learning Model**

This model suggests that around 10% of learning as adults is through courses, 20% through observing or learning from others (e.g. mentoring, or shadowing), and 70% is through challenging assignments e.g. doing. This suggests that knowledge management applied in the flow of work is an important part of building company capacity. "learning by doing".

[https://en.wikipedia.org/wiki/70/20/10\\_Model\\_\(Learning\\_and\\_Development\)](https://en.wikipedia.org/wiki/70/20/10_Model_(Learning_and_Development))

**"Say what you are going to say, say it, and say it again"** More an adage, than a model, but do not underestimate the usefulness of repetition and reinforcement to get the knowledge you are sharing into use.

**WIFM – What's in it for me?** KM communications work best when we use the language of the end user, and are able to articulate how our programme will benefit them, for example, allowing them to finish their work on time, as opposed to "improve the profitability of the business".

## Barriers to knowledge sharing

The most common barrier to knowledge sharing will be time to share... but this is often underpinned by institutional culture around valuing knowledge. Examples of barriers:

- **Non-project time** – often KM is not considered a billable activity, and so professional services firms may not be able to prioritise KM sharing due to this being prioritised. Consider a specific KM budget to book to, to help solve this.
- **Hostile Culture** – sometimes individuals that share their knowledge will be criticised by other experts, limiting their appetite for future sharing. It is important to use senior leadership to call out non-collaborative and or critical behaviours.
- **Trust** – This underpins knowledge sharing; trust that sharing lessons learnt or incomplete information will be welcomed. If you know and trust who you are sharing knowledge with, you are more likely to open up and have a richer conversation about what you know, don't know, and are unsure of.
- **Knowledge Hoarding** – Some professionals believe that "knowledge is power", and will not share as they think this detracts from their personal value. It's useful to ensure individuals are profiled, and benefit from kudos from sharing knowledge.

There are many more barriers to sharing knowledge. Not everyone will want to share their knowledge openly. Take time to identify barriers and encourage a sharing and learning culture.

### **The Seven Deadly Syndromes of knowledge sharing**

This popular "personality types" was created by KM author and consultant Chris Collison; partially humorous, but interesting traits to consider! [Chris Collison: Profiles in Knowledge | LinkedIn](#)

1. **Tall Poppy syndrome:** a reluctance to share due to a fear of being "cut down to size" by their peers.
2. **Shrinking Violet syndrome:** modesty; someone doesn't believe that they have anything to share.
3. **On the Web syndrome:** confusing capturing with sharing – capture it once, then it's shared forever.
4. **Communities of Practically Everything syndrome:** Communities are incorrectly perceived as a panacea.
5. **Not Invented Here syndrome:** Where people believe their culture and company is unique, with unique problems and solutions suggested by external sources will not work.
6. **Ignorance is Bliss syndrome:** a lack of curiosity, or inflated self-confidence reduces seeking k-gaps
7. **Real men don't ask for directions/TomTom syndrome:** Asking for help is perceived as a sign of weakness.

## Further Resources

- [An introduction to Knowledge management | Knoco Ltd](#)
- [What is Knowledge Management? | APQC](#)
- <https://sikm.groups.io/g/main>
- [Striking a Balance Between KM Theory, Concepts and Practical Application - YouTube](#)
- [What is a knowledge manager, and why do you need one - Rory Huston](#)