Introduction

Knowledge Management (KM) is a management discipline that aims to sustainably improve the effectiveness of organisations and social systems through deliberate and planned systems interventions.

It is a multidisciplinary management science, drawing from diverse fields including information theory, data sciences, librarianship, communications, marketing, psychology, biology, sociology, and management research.

Many KM curriculums for both tertiary qualifications and private certifications only cover a small subset of the areas relevant to effective practice of knowledge management in organisations.

The RealKM Open KM Syllabus is an initiative which attempts to systematically describe the themes and topics required for a fully-rounded education in knowledge management theory and practice.

The goal is to provide a reference standard which can be used to:

- compare the content of educational KM programs
- create a common language for KM specialisations
- assist KM practitioners to identify opportunities for personal improvement

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- theme numbering is preserved
- any new themes use a numbering scheme which clearly indicates it is an extension, eg
  - EX.A.1 – new theme
  - A.EX.1 – new subtheme
- any insertions, modifications, or deletions to listed topics are clearly marked or footnoted
- origin of document remains clearly credited

If you have any questions or suggestions for improvement of the syllabus, please contact Stephen Bounds on stephen@bounds.net.au.
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A. Core concepts

A.1. Systems and complexity

Key topics
What is a system?
Defining the boundary of a system
‘Open’ and ‘closed’ systems
Complex systems
Types of complex systems
Are all systems complex?
Understanding complex system agents
Navigating complexity

A.2. Knowledge systems

Key topics
What is a knowledge system?
Defining information, knowledge and action
Williams AKI model

A.3. Problem solving patterns

Key topics
Knowledge as precursor to action
Problem solving models
eg scientific method, OODA, Deming cycle, Six Sigma DMAIC, knowledge lifecycle,
Bounds unified problem solving pattern

A.4. Knowledge Management objectives

Key topics
KM objectives chain
Knowledge codification
Narrative  
Collaboration  
Knowledge distribution  
Individual learning  
Knowledge integration  
Distributed problem solving  

A.5. Knowledge Management interventions  

**Key topics**  
Firestone & McElroy 3-tier KM  
Business process interventions  
Knowledge process interventions  
Information process interventions  
Problem solving pattern interventions  

B. Knowledge management strategy  

B.1. Knowledge application outcomes  

**Key topics**  
What is the knowledge application scale?  
Knowledge deployment – delivery of products and services  
Intangible assets – creating knowledge products covered by law  
Intellectual capital – curating knowledge systems and information assets  
Knowledge entrepreneurship – sponsoring creativity and innovation  

B.2. Knowledge construal assessment  

**Key topics**  
Intrinsic and extrinsic motivation  
Congruence of knowledge value among actors  
Accessibility of knowledge  
Knowledge delegation  
Low involvement vs high involvement  
Risk avoidance  
Behavioural defaults
Psychological distance

B.3. Trust assessment

Key topics
Criticality of trust to organisational systems
Vanhala trust model – acceptance of vulnerability
Interpersonal trust – Competence, benevolence, and reliability trust
Impersonal trust – Leadership trust and structural trust
Individual / team / systems knowledge
Irrevocable trade-offs in organisational knowledge systems
Resilience / robustness / productivity triangle

B.4. Systems awareness and design

Key topics
Ecology and competition
Alliances and partnerships
Recognising and aligning behavioural incentives

B.5. Strategy development

Key topics
Selecting a systems scope and timeframe
Ideation-realisation axis – Premises, aims, and systems
Specification-indication axis – Design, action, and measurement
Premises establish consensus on values (principles) versus effort (initiatives)
Linking why (objectives) to what (goals)
Systems define how things are done (norms) and who does them (roles/responsibilities)
Design attributes (principles, objectives, and norms) describe future aspirations
Action components (initiatives, goals, and roles/responsibilities) describe present-day status
Measuring benefits to close the organisational feedback loop
C. Knowledge assessment

C.1. Knowledge audits and mapping

**Key topics**

- Undertaking knowledge discovery
- Documenting knowledge needs
- Discovering knowledge gaps
- Identifying key knowledge processes

C.2. Decision making structures

**Key topics**

- Governance – policies, standards and accountability
- Management – control and execution
- Monitoring – reality versus assumptions
- Assessment – identifying next steps
- Soft influence – indirect behavioural change
- Social networks – informal knowledge transmission
- Rewards & punishment – providing explicit systems feedback

C.3. Capability design, implementation, and maintenance

**Key topics**

- Group structures – teams, task forces, and squads
- Mentoring and apprenticeships
- Equipment and technology
- Physical and virtual spaces
C.4. Training and development

**Key topics**

- Competency and skills frameworks
- Communities of practice
- E-learning

D. Systems interventions

D.1. Systems management

**Key topics**

- Identifying complexity
- Predictability and propensity
- Attractors, blockers, and constraints
- Loci of stability and systems disruption

D.2. Knowledge processes

**Key topics**

- Knowledge discovery
- Knowledge evaluation
- Solution comparison and selection
- Decision support systems
D.3. Information processes

**Key topics**

- Information theory (Shannon, Vigo)
- Architecture and taxonomy
- Ontology and semantics
- Capture, sharing and retrieval

D.4. Business processes

**Key topics**

- Process / practice divide
- Coherence, consistency, and compliance
- Documentation
- Quality assurance
- Collaboration

E. Applied KM

E.1. Knowledge economy

**Key topics**

- Increased work focus on knowledge-based outcomes
- Leveraging increased employee education and capability
- Transformative effects of near-zero information transmission and processing costs
- Organizational coordination with expectations of near-instantaneous response
- Employee mobility and contracting
- Deployment of artificial intelligence
E.2. Knowledge brokering

**Key topics**

Knowledge linchpins
Social network analysis
Library as knowledge broker

E.3. Development and extension

**Key topics**

Critical problem – achieving group knowledge uptake
International cooperation
International development programs
Committees and forums
Conventions and agreements
Agricultural extension – applicability generally

E.4. Management decision making

**Key topics**

Agile versus lean – Continuous delivery vs continuous improvement
Multitasking – overhead, pre-emption, context switching, deadlock
Smarter management design – Minimising pre-emption conflict

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