Discussion and Reflection Notes from the ISKO Singapore Meeting on The Knowledge Organisation Competencies Project, 11 March 2016

Who is the KO Competency Framework Aimed At?

The KO Competency Framework focuses on individuals and their needs rather than organisations. The survey was intended to form an impressionistic picture of how competencies are clustered within individuals within the broader marketplace. Organisations have their own needs and these should be addressed in future work - eg by looking at competencies as a component in organisational capabilities. Each organisation will have different patterns of competency needs, as KO projects can vary widely.

However, organisations provide the context and the market for KO competencies. Orienting the framework towards organisations would encourage them to use the framework to develop their people. Individuals will be motivated to build competencies within an organisational context. Unlike professions such as Law, Accounting and Engineering where there are compliance and regulatory incentives to acquiring a broad-based education pre-employment, there are no incentives in the KO marketplace to do so.

This assumes a "gap-fill" approach; i.e. use the competency framework to identify gaps and identify training/education/recruitment approaches to fill those gaps.

On the other hand, the survey results suggested that individuals either have a broad spectrum of competencies or they have very few of them. The picture presented by the survey suggests that if a full spread of competencies are required, a more comprehensive training/education approach (such as in a curriculum) would be more appropriate than a gap-filling approach.

Several of the more technical competencies (eg Managing Systems and Developing KO Structures and Frameworks) are non-trivial and require deep knowledge. Developing implementation competencies may require Master's or PhD level learning. This suggests the "levelling up" challenge within this framework is unevenly distributed between experiential learning and training, and specialised technical education.

The competency framework appears uneven in other ways. There are specialized areas that overlap with other fields, e.g. Hadoop is also recognized as a key Data Science competency. So the overlaps among knowledge organization, knowledge management, MIS, data science/analytics etc. can be quite confusing.

There are also different applications of these competencies. For example, is the competency aimed at being able to implement a particular aspect of a KO project (such as a text analytics/ autoclassification project) or does it mean knowing enough about the domain simply to be able to accurately specify a project, evaluate approaches and manage specialists through a project?

What is the Value of Knowledge Organisation?

Knowledge Organisation is sometimes valued in organisations and sometimes not. Where the importance of KO work is visible throughout the organisation and explicitly linked to the organisation's mission then it will get the resources that it needs.

The value of KO work is seen not in the organising activity itself but in information/ knowledge consumption, and the outcomes of that consumption. There is a risk in making KO competencies too self referential as if they are an end in themselves. The KO competency framework does cover business case creation but does not cover the evaluation and measurement of business outcomes. We need to be able to demonstrate the effectiveness of a KO implementation.

This also suggests greater attention needs to be given to the knowledge management context of KO projects. Why is the KO project being undertaken and to what goals? This should normally be defined within a KM strategy. The framework also neglects the broader context of KO implementation, of an organisation as a knowledge ecosystem where behavioural factors also play a big role, and processes such as sharing and collaboration, and enabling organisational change.

Looking the the broader KM picture also sees KO as a complementary activity to other important KM activities - such as sourcing for useful/ relevant knowledge. Again, KO does not exist in a vacuum and is not an end in itself. It should sit within user, organisational and KM contexts, and it is these contexts that determine the goals that KO work is meant to serve.

There is a lack of clarity about the relationship between KO and KM. This needs to be made clearer. They are not, in the field, independent disciplines. They interact.

How Important is the Role of the KO Professional?

In the KO domain there tends to be an assumption that the KO professional is the arbiter of significance and meaning. Certainly in developing KO systems such as taxonomies and ontologies, the structures privilege some perspectives on the knowledge-base over others. Should the KO professional be deciding this?

The competency framework does stress the importance of having competencies in user research, i.e. gathering evidence about the various needs and perspectives of the different user groups.

However, there are other potential approaches to organising that do not privilege the role of the KO professional in arbitrating the way stuff is organised. User behaviours (consumption patterns) can be used to drive how stuff is made visible and accessible, and some machine learning techniques leverage this. Perhaps we are focusing on the wrong things. Rather than, say, organising knowledge assets as if they are potential answers to all possible questions, why not use the question-asking activity (demand/consumption) to organise access to the knowledge-base?

The real value of knowledge is found in the context of the user, and this is the thing that drives consumption at any given time. Contexts are shifting dynamically all the time. Context-orientation is the biggest challenge facing KO systems and professionals. How do we organise in a dynamic way in context?

This is a radically user-oriented approach to knowledge organisation that goes beyond saying that the KO professional needs to engage in user research and user needs analysis. It raises the question of whether the role of the KO professional will be superceded by machine techniques.

Increasingly, knowledge organisation work needs to be dynamic. It needs to adapt to changing contexts and situations. The approach to KO work as a task of analysis and design followed by maintenance may be too static for this increasingly dynamic environment. This implies a mix of people and machines - as machines can operate at scale and speed (the 3Vs of big data).

However, machines are stupid without expert input on configuration and task design. They need people to understand the contexts in which they are operating. This factor also implies that single individuals are unlikely to have the full range of competencies required for any given KO task or implementation. We are looking at collective competencies, which brings us back to the organisational capability question.

Machines are not the “magic pixies” that somehow give the results that everybody needs. KO professionals may turn out to be the “magic pixies” in the machine that direct the machine towards productive outcomes for users. This may suggest there is scope for newer competencies to be developed around machine augmented approaches to KO.

Conversely, large organisations are increasingly seeking to embed their knowledge into machines, not just accessing and leveraging knowledge through machines. We should also think of the role of the KO professional as an enabler to this task.

What Does the KO Professional Do?

KO professionals need a mix of front (socio-political) and back office (technical) skills. In fact, the two sets of skills should reinforce each other. Individuals may gravitate more to one domain than the other.

As in all specialised competency frameworks, there is also a need to be clearer about the general management and behavioural competencies required to implement KO. It is not just about functional and technical competencies. This means we need to be clearer about management competencies, leadership competencies, and social competencies.

In the start-up world, there are three common archetypes: hacker, hipster and hustler. The hacker is the back-room technical whizz kid who knows how to get systems to do anything. The hipster is attuned to the user community and figures out what needs should be addressed. The hustler is the person who knows how to sell the system, get buy-in and participation. Again this suggests a team-based collective competencies

approach rather than an approach that says any given individual should possess a full range of competencies.

KO - like all practical disciplines - has elements of art and science to it. One of the fundamental tasks in teaching KO competencies is not so much the individual techniques, but teaching people how to think. Clarity of thought is essential in KO. We already see this happening in the professional librarianship space. Traditionally, competencies in library science focused on practices and techniques. Now they tend to focus more on developing literacy skills in library users, teaching them how to think, how to source for information effectively, how to identify bias in information sources.

KO is a little different from library science, in that, unlike library science, it has never had a clearly articulated competency base. Hence there may be some merit in undertaking a competency framework project like this, to map out the core technical competencies within the domain. However, we should not lose track of the broader competency picture.

We would like to thank the following individuals for their valuable inputs into this discussion:

Awie Foong
Chris Khoo
Edgar Tan
Eileen Tan
Ghazali Mohamed Fadzil
Idris Rashid
Leong Mun Kew
Matt Moore
Neo Kim Hai
Patrick Lambe
Tan Xinde