This article is the fourth in a six-part series on effective knowledge transfer for engineers. The preceding three articles appeared in the following editions of Civil Engineering:
1 – January/February 2011
2 – January/February 2012
3 – June 2012

INTRODUCTION
Truly effective engineering and construction mentors are either naturally gifted, or rely on a set of tried and tested tools and practices to assist them with the complex task of using a relationship-based methodology to share their multi-source, experience-based knowledge. The latter group is by far the greater majority.

This article is designed to introduce the important tool of Expert Profiling, developed by Mentoring 4 Success™ (M4S) to assist engineering and construction mentors to identify and profile engineering and construction experts, using a logical model, against which younger engineers can benchmark their future career development – thus empowering them to make better decisions much earlier on in their careers.

The term Expert Profiling has been used for many years by the ‘search and selection’, or ‘head hunting’ agencies. It has evolved into a highly sophisticated form, with the development of incredibly invasive ‘intelligent agents’ or ‘bots’, which constantly trawl all published and virtual media throughout the world to create elaborate, disambiguated, intelligent, expert search capability for the hungry corporate ‘expert seekers’. Expert Profiles are also used by ‘expert communities’ to index and categorise participating and non-participating (but known) experts into intelligent domain ontologies and discipline-specific taxonomies, or expert directories, for ease of access and collaborative engagement on specialist projects, or for research purposes – in a search range offering anything from multiple competencies and connections, right down to granular specifics and unique specialisations. Expert Profiles are also used by two other corporate functions, namely the knowledge management fraternity, who create essential ‘expert locators’ or ‘finders’ to assist organisations in managing and tracking internal and external experts for specific projects and challenges, and also by the human resources community, who use Expert Profiles to create business- or function-specific job profiles for critical posts.

This article does not deal with the above well-established uses and applications of the term Expert Profile, but instead seeks...
to introduce and offer a simple, yet powerful tool for engineering and construction mentors to enhance their mentoring relationships and results.

**EXPERT PROFILING FOR ENGINEERING AND CONSTRUCTION MENTORS**

Expert Profiling in an organisation-wide knowledge-sharing or structured mentoring intervention can become an extremely valuable company asset, as the collective, peer-reviewed and quality-rated Expert Profiles can be used as a physical ‘expert crowd’, or in the more distributed organisations where virtual collaborative effort is preferred, they become the ‘expert cloud’.

Essentially, the concept and models to be introduced could be customised and tweaked to fit a number of different requirements, but we have found that the following two standard models work extremely well in 99% of all the engineering, construction and technical organisations we have ever worked in over the last 16 years, namely:

- the M4S HARD Competencies Expert Profile (introduced below), and the
- the M4S SOFT Competencies Expert Profile (to be introduced in the next article).

The HARD Competency Expert Profile for Mentoring consists of a simple ‘research and structured interview model’ which provides a discovery process to ‘unpack’ the selected expert into typically 12 logical ‘expertise clusters’, which a prospective ‘career protégé’ or mentee can use to benchmark themselves (see template and diagram alongside).

It is important to offset the potential variances in personal opinions versus peer-reviewed opinions, and also the potential for unintended embellishment of the facts, as a result of unchecked faith in the initial ‘self-declarations’ of the expert. Nothing sinister is intended or implied here, but it is important to have a corroboration process to add validity and a quality rating to Expert Profiles, based on objective, evidence-based confirmation (possibly including simple observation), or peer-reviewed feedback and opinion of the Expert Profile – this should, however, always be agreed upfront with the prospective expert.

**INTRODUCING THE M4S HARD COMPETENCY EXPERT PROFILE**

Typically, a mentor and mentee will agree on several appropriate and amenable ‘experts’ who have the potential to offer critical insights to the mentee and his/her desired engineering or construction career path. The objective is to arrange a series of ‘structured interviews’ with the experts, supported by some focused research. Using this simple model, the mentees quickly gain essential insights, which almost certainly would never have surfaced out of polite conversation only.

A simple template can be developed to assist the pool of mentees to maintain a consistent approach to the interviewing and recording format for their interviews. A section should be included for the peer-review input and quality control rating, in terms of any follow-up corroboration process discussed above. It is also a great idea to try and video critical elements of your interview conversations, especially with the experts who may be retiring soon, or will be unavailable in the near future – these can be linked to downloadable or inhouse-hosted video assets for long-term benefit.

In order to assist prospective mentors and mentees who may wish to try this value-adding approach to gathering, packaging and sharing critical institutional wisdom, the simple template contains an abbreviated ‘under the bonnet’ look at some of the interview focus areas – there is obviously a lot more involved in terms of preparation and initial research, structured interviewing and collaborative conversation techniques, ‘focusing on the few’ and avoiding clutter, and also tips and techniques to get the most out of expert interviews, but this requires facilitation and training beyond the scope of this article.

I hope you enjoy the process of Expert Profiling as much as we do. The ability for Africa to cut the debilitating apron strings of excessive reliance on expatriate skills and expertise on our major engineering and construction projects could be significantly enhanced if we build Expert Profiling into the habits and practices of our young engineers on all our major infrastructural and capital projects in future.
Source: