

Future of Surveyors: Moving up the Food Chain?



Robin McLaren has recently learned that both the medical profession and the architecture profession are in a dilemma due to the emergence of IBM's 'Watson' supercomputer and the challenges of fast-evolving technical and business worlds. So how is the surveying profession coping? In this column, he explores how the surveying profession can remain relevant under pressure from other potentially more agile and better-prepared professions.

I attended an event at this year's Edinburgh Science Festival where the medical profession was debating the potential role and impact of IBM's 'Watson'. It is a supercomputer that combines artificial intelligence (AI) and sophisticated analytical software for optimal performance as a 'question-answering machine' that is already proving its worth in patient diagnosis. Doctors just won't have their normal 17 years to

adopt new procedures with 'Watson' support knocking on their doors. I then learned that the architecture profession is also in a dilemma. Due to their reluctance to embrace and manage risk and teach the business of design and construction, it is estimated that 80 percent of the world is now built without architects. It appears that all professions are having to adapt quickly to the challenges of fast-evolving technical and business worlds.

How is the surveying profession coping? Do surveyors understand the far-reaching impact on their profession of the technology and business revolutions taking place throughout the geospatial sector, including mobile technology-based crowdsourcing, the combination of AI and Earth observation, simultaneous localisation and mapping (SLAM) systems of robotic mapping and navigation, and land registries being outsourced to the private sector? Will the surveying profession soon be considered an irrelevance as other more agile and better-prepared professions take advantage of these opportunities?

To be relevant, we must educate our students and continue to develop the capacity of our professionals to be as creative in business as they are in capturing, managing and analysing geospatial information. The current limited scope of surveyors is largely a result of being taught 'what to think' rather than 'how to think' about the geospatial business. Relevance is connected to five critical characteristics:

Scope – if we teach young professionals how to be as creative in the geospatial information business as they are in technology, it will open doors for revenue streams from intellectual property and new services to expand the influence of the problem-solving surveyor

Effectiveness – solutions to our global problems will only be achieved through collaboration with other professions. Courses must involve multidisciplinary teamwork to solve problems rather than being insular

Connectedness – we actively insulate our profession with lazy, self-indulgent 'geospeak'. In a world where social media and misinformation often reign, it is critical to get our message across to those we are trying to influence – such as politicians – clearly and effectively

Appropriateness – our solutions are often over-specified and too expensive for the customers' requirements. We need to more effectively listen to customer needs, better understand the cultural context and deliver fit-for-purpose solutions;

Resilience – we must lift up our heads, we must see what is occurring in the world and we must adapt. This will require us to retain our global values.

To survive, surveyors will need to embrace profound change, move up the food chain by adding considerable value and be proactive in creating new, innovative markets. Otherwise we will become irrelevant and extinct.