

*Presentation*  
**Cognitive and Contextual Computing Laying A Global Data Foundation**

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**Abstract**

A search of the current computing and technology zeitgeist will not have to look far before stumbling upon references to Cognitive Computing, Contextual Computing, Conversational Search, the Internet of Things, and other such buzz-words and phrases. The marketeers are having a great time coming up with futuristic visions supporting the view of computing becoming all pervasive and ‘intelligent’. From IBM’s Watson beating human quiz show contestants, to the arms race between the leading voice-controlled virtual assistants – Siri, Cortana, Google Now, Amazon Alexa.

All exciting and interesting, but what relevance has this for DCMI, metadata standards, and the resources we describe using them? In a word, “context”. No matter how intelligent and human-like a computer is, it’s capabilities are only as good as the information it has to work with. If that information is constrained by domain, industry specialised vocabularies, or a lack of references to external sources; it is unlikely the results will be generally useful.

In the DCMI community we have expertise in sharing information within our organisations and on the web. Dublin Core being one of the first widely adopted generic vocabularies. A path that Schema.org is following and in its breadth of adoption is now exceeding.

From his wide experience working with Google, OCLC, European and National Libraries, the banking industry and others, Richard will explore new initiatives and the processes being undertaken to prepare and widely share data in a generally consumable way on the web.

Schema.org has been a significant success. Used by over 12 million domains, on over a quarter of sampled pages. It is enabling a quiet revolution of preparing and sharing data to be harvested into search engine Knowledge Graphs. Knowledge Graphs that power Rich Snippets, Knowledge Panels, Answer Boxes, and other search engine enhancements. Whilst delivering on one revolution, it is helping to lay the foundations of another.

Building a global web of interconnected entities, for intelligent agents to navigate, these Knowledge Graphs fed by the information we are starting to share generically, are providing the context that will enable Cognitive, Contextual and associated technologies scale globally. Ushering in yet another new technology era.