

# Data modelling is so last century! Agree? or Disagree?

## Abstract

Has data modelling become obsolete in our world of big data, NoSQL, data lakes and data science? Or is it as relevant as ever given the challenges of privacy, security and integration. Join us to hear what others have to say and contribute your 2 cents worth! This is an interactive session. The meeting starts with a few brief comments by our guest contributors, followed by a group discussion and Q&A.

## Meeting Consensus

The room consensus was that data modelling is still required (and invaluable), you can't do meaningful work without one.

But that said... We should take advantage of new tools and techniques to build models more quickly, find ways to cope with changes to our data landscape as they occur, and be mindful of business needs (time to market, etc.)

## Contributors

### Yogi Schulz

Consultant, Corvelle Consulting

**Bio:** Yogi Schulz founded Corvelle Consulting. The firm specializes in project management and information technology related management consulting in the upstream oil & gas industry. In recent years, Yogi has advised on using data analytics for business value.

**Position:** Data modelling is integral to successful custom software development.

Often business analysts and developers focus too much on business process requirements and neglect data model requirements in their design work.

The negative results include:

1. Too much rework as more requirements pop out late in the development process.
2. Poorly performing applications due to primitive/awkward data structures.
3. Overly expensive enhancements due to too much change required to the code base.

### Ron Huizenga

Senior Enterprise Architect, Finning International

**Bio:** Seasoned business and information systems executive with a highly successful track record in enterprise architecture, data architecture, business transformation, management consulting and product management across multiple industries.

**Position:** Most companies are failing at their attempts to become data driven. The complexity of today's data ecosystem, combined with low data and process maturity is at the heart of the issue. Data modeling is more important now than ever before in order to unravel the complexity and to unlock the data value chain.

### Mike Morley

Founder, Menome Technologies

**Bio:** Mike founded Menome Technologies in 2016, and is currently acting in the role of President and CEO.

Mike developed his first knowledge system in 1986 and has been developing software designed to augment the abilities of people, organizations and industries ever since.

Following getting a degree in Geological Engineering, Mike has spent the past 25 focusing on disrupting to Environmental, Mining, Oil and Gas industries with technology.

Mike holds a degree in Geological Engineering from the University of Waterloo.

He participates on the advisory board of PIR-a.

Mike is an avid mountain biker and volunteers with the Moose Mountain Trail builders Association.

Mike also is a main stage performer with the Kinkonauts Improv Society in the Clue and Starfleet Confidential Troupes.

**Position:** One of the reasons I am a huge proponent of graph databases is that the model is inherently 'whiteboard friendly.' Modelling data with a traditional relational database requires a lot of expertise and knowledge in order to translate the data into a form that is amenable to relational modelling.

A similar process exists in graph data modeling as well but instead of modifying the data model to fit a normalized table structure, the graph data model stays exactly as it was drawn on the whiteboard: business entities (nodes) connected together with relationships that describe the nature and weight (strength) of the connections. This makes it very easy to work with business stakeholders because there is no need to draw up business model versions or explain ERD terms to business users. Instead, the graph data model is easily understood by anyone.

## Meeting Links / References

From Yogi Schulz, The Business Value of Data Modeling

An article that Yogi mentioned at the end of our meeting:

<https://www.itworldcanada.com/blog/business-value-of-data-modeling/380574>

From Mike Morley, vis-à-vis graph databases

This is a link to the presentation from which I derived the handouts

from. <https://www.dropbox.com/s/mu5e88wf19zc607/200108-2%20Alberta%20Data%20Architects%20Event.pdf?dl=0>

Here's a series of webcasts we have done on the subject of graph databases/agile data:

Data Atomization: <https://www.youtube.com/watch?v=sZhQMeP6A14>

Text Analytics: <https://www.youtube.com/watch?v=sZhQMeP6A14>

Spatial modelling: <https://www.youtube.com/watch?v=1fTSB9rvcls&t=2055s>

From Marc Nolte

Marc talked about Kafka KSQLDB, and mentioned this demo:

"The event streaming database in action"

<https://www.youtube.com/watch?v=D5QMqapzX8o&feature=youtu.be>