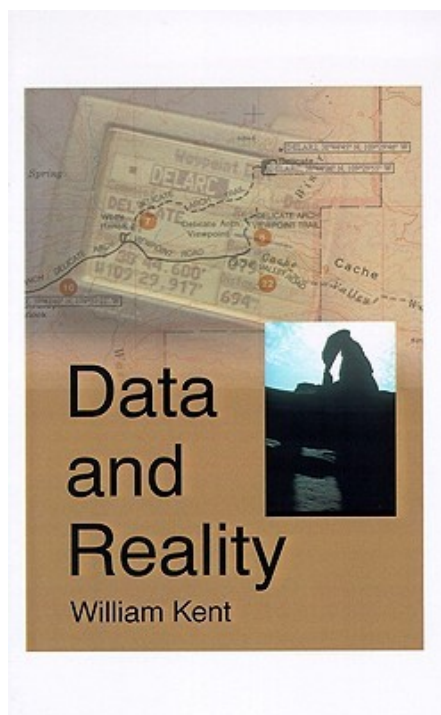




Data and Reality

William Kent

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Data and Reality Details

Date : Published by Authorhouse (first published 1978)

ISBN : 9781585009701

Author : William Kent

Format : Paperback

Genre : Science, Computer Science, Technology, Programming, Software



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From Reader Review Data and Reality for online ebook

Steve Whiting says

It's long been an axiom that "data" and "information" are not the same thing. Kent shows, at great length and with considerable insight, why "information" and "meaning" are also not necessarily the same thing, and examines the issues involved in ensuring that "meaning" can be unambiguously represented and retrieved.

In this, he is both decades ahead of his time (the book was written in the mid-1970s, yet many of the issues he raises are important for the development of the Semantic Web), and also out of date (many of his concerns in the latter parts of the books are limitations of the IMS database, and other DBMS of the era).

Throughout the book, Kent looks rigorously at many aspects of information which are normally taken for granted, but which actually involve considerable ambiguity - both in the context of data within IT systems and in the real world: for example, in seemingly-obvious concepts like "this" and "the same".

Sometimes, his rigorous view can lead to him tying himself in pedantic knots - the discussion of attributes being a particular example. In addition, his habit of raising issues and not coming to any conclusion (a deliberate choice by the author rather than a lack of clarity) can be wearing: in many places discussions peter out into Kent admitting that he doesn't know how to conclude the argument.

There are some points where this edition's origins as a re-typesetting of typewritten original are a handicap - Kent at times has to jump through linguistic hoops to describe some concept that could be explained far simpler in a diagram.

In the latter third of the book, Kent concerns himself with discussion of a generic conceptual model, which he never really adequately describes the purpose of: it appears to be a meta-model to be used to describe other models, or provide a formal definition of other models. After a couple of chapters of agonising over the limitations of relational & hierarchical models for defining this, he eventually lands on something which is redolent of object modelling (a couple of chapters after a modern reader has long been muttering "surely this can be addressed by object modelling?"). When I belatedly realised what Kent had written and worked on after this book, it's hardly a coincidence.

It's a strange book - on the one hand concerned with perception of reality, on another with how that is represented in models and computer systems, it often veers as much toward philosophy (particularly at the end) as information technology.

All in all, a very worthwhile book, taking an unusual and very perceptive look into the meaning of data.

Dave Peticolas says

Fantastic book about the challenge of modeling the world with computers. It was written decades ago but it might have been written yesterday. The questions it poses have for the most part not been answered to any satisfaction. I also think it manages to foreshadow some of the more recent research about the role of metaphor in language and thought. Highly recommended.

Kathy says

tl; dr: reality is subjective, which means that no data model will be objectively correct (e.g., what is an attribute vs. a relationship, what is an entity vs. an attribute). for every business problem we make choices for the data model based on the scope, and which questions we need answered. when integrating multiple systems meant for multiple business problems, we'll have to reconcile the data models with each other. the idea that there no objective correct data model is freeing, though i was hoping to learn more from this book about how to make choices about data model given the specific business scope at hand.

it's very existential. the last chapter is about how we all perceive reality differently because of our view of science / spirituality, and the sapier-whorf hypothesis lol.

Josh says

A philosophy book that asks many important questions, but answers few of them. I liked it! Everyone should be aware of these points of conflict between data and reality.

Marijcke says

Fris en interessant boek vol gedachten over het waarnemen en beschrijven van de werkelijkheid. Zeer de moeite waard voor wie zich met data bezighoudt. Ja, je mag het van me lenen maar ik wil het wel terug!

Alex Linschoten says

Amazingly prescient for its time.

Selena Mccracken says

Imperative introduction to information science with pleasantly simplified instruction.

Chris Esposito says

Unique and informative. The book is almost 40 years old, yet still relevant to some aspects of today's data challenges. Although written by a professional DB academic (there is such a thing) and professional, the book does not read like an IT or computer science text. Instead, it reads like Bertrand Russell, or maybe Kant in analytic logic.

The being written scarcely 20 years after the invention of the relational database management system is primarily concerned about the "philosophy" of representing things in reality as content within such a system, basically producing a data model and a logical model. In this capacity, much time is spent on set-analysis,

i.e. what does it mean for something to be a member of such-and-such at which level does it make sense to map your entities in, how many/which attributes should one record. When are certain data models appropriate for which use-cases (e.g. like a record model)?

Though, again, the book is written as if the author was a philosopher and not a DBA. Given the increasing relevance of data, this book is still surprisingly relevant, even if a lot of the DBA like work has become commodified. As the author notes, just establishing such a rational information system will take many decades to accomplish within the whole of US enterprise. He was right, the task has still not been completed.

Given the books introspective topic, which amounts to epistemology, it makes a great hiking companion. I'd actually listen to it again. Recommend (for nerds)

Ian Varley says

A classic. I treasure my copy of the 1978 edition. Yeah, it's a database book, and yeah, it's 35 years old. But it overflows with wisdom. An extended quote from the final chapter, entitled "Philosophy":

"This book projects a philosophy that life and reality are at bottom amorphous, disordered, contradictory, inconsistent, non-rational, and non-objective. Science and much of Western philosophy have in the past presented us with the illusion that things are otherwise. Rational views of the universe are idealized models that only approximate reality. The approximations are useful. The models are successful often enough in predicting the behavior of things that they provide a useful foundation for science and technology. But they are ultimately only approximations of reality, and non-unique at that.

This bothers many of us. We don't want to confront the unreality of reality. It frightens, like the shifting ground in an earthquake. We are abruptly left without reference points, without foundations, with nothing to stand on but our imaginations, our ethereal self-awareness. So we shrug it off, shake it away as nonsense, philosophy, fantasy. What good is it? Maybe if we shut our eyes the notion will go away. What do we know about physical entities, about ourselves?"

The 2012 annotations by Steve Hoberman are useful for orienting someone who's not familiar with modern "standard" data modeling practices, primarily relational database ones. They're useful, but I find more compelling the bravery and bewilderment of the original.

"I do not know where we are going, but I do know this—that wherever it is, we shall lose our way." - Praxedes Mateo Sagasta

Pascal says

Do try this book if you're into information modeling one way or the other. For me personally, 2 or 3 chapters had too much details.

David says

Written some decades ago, this book almost reads as if it came out yesterday. The author pulls apart the simplifications in data modelling that are often swept under the carpet, but are a fundamental part of the

realities we are trying to model.

The book loses momentum a little towards the end, and the suggested solution to some of the issues is only partially fleshed out. However, modern Semantic Web researchers will find much that is familiar.
