Fact Oriented Modeling with FCO-IM
Capturing Business Semantics in Data Models with Fully Communication Oriented Information Modeling

This book offers a complete basic course in Fully Communication Oriented Information Modeling (FCO-IM), a Fact Oriented Modeling (FOM) data modeling technique. The book is suitable for self-study by beginner FCO-IM modelers, whether or not experienced in other modeling techniques. An elaborate case study is used as illustration throughout the book.
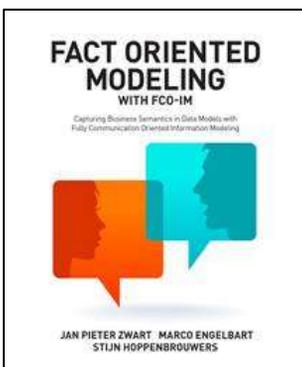
The book also illustrates how data models in other techniques can be derived from an elementary FCO-IM model. The context of fact oriented modeling is given as well, and perspectives on information modeling indicate related areas of application and further reading. Fact Oriented Modeling methods (like FCO-IM) have three major advantages over other data modeling techniques:

- FCO-IM captures business semantics. The meaning of facts is captured by incorporating into the model expressions of concrete facts in clear sentences, which are understood by both domain experts and information modelers.
- FCO-IM includes a detailed working procedure that tells you exactly how to make a data model. Many techniques are clear about what is to be modeled, but few offer a detailed set of guidelines and checks that tell you how to draw up, check and validate your model.
- FCO-IM focuses on elementary facts, avoiding premature clustering of facts (in entities) but also avoiding considering only incomplete fragments of facts (attributes). From an elementary model, data models in other techniques can be automatically derived (ERM, UML, Data Vault, Star Schema, and Relational and NoSQL databases).

Jan Pieter Zwart (1955) is assistant professor of Information Systems at HAN University of Applied Sciences (HAN UAS, Arnhem, the Netherlands). He has been active as teacher and developer in the field of conceptual information modeling and metadata driven transformations since 1985. He is co-author of the first book on FCO-IM, and has published peer-reviewed papers on further developments in FCO-IM. Jan Pieter divides his time between teaching and doing research in the fundamentals of data and process models in the Model-Based Information Systems group at HAN UAS.

Marco Engelbart (1964) is assistant professor in Information Technology at HAN University of Applied Sciences (Arnhem, the Netherlands). He has over 25 years of experience in teaching conceptual information modeling and other subjects related to information systems development and software engineering. Marco is co-author of the FCO-IM exercise book (in Dutch). As member of the Model-Based Information Systems research group at HAN UAS he is actively involved in designing transformation algorithms for model transformations from FCO-IM to Data Vault and Anchor Modeling.

Stijn Hoppenbrouwers PhD (1970) is professor of Information Systems at HAN University of Applied Sciences (Arnhem, the Netherlands) and assistant professor at Radboud University (Nijmegen, the Netherlands). He has published over 100 peer-reviewed papers at international conferences and in journals, on Conceptual Modeling, Requirements Engineering, Collaborative Modeling, Enterprise Engineering, and Method Engineering. He was a member of the team designing the ArchiMate language for Enterprise Modeling. Stijn currently leads the Model-Based Information Systems research group at HAN UAS and heads the HAN Center for IT and Media. Stijn teaches at HAN, at Radboud University, and at international events and summer schools.