

## Preface

Contrary to what one might expect while reading the title of this book, this study was not conducted at an information science institution, but at the department of philosophy and theory of science of Johannes Kepler University (JKU) Linz / Austria. The author, Terje Tüür-Fröhlich, has no formal information science education. Therefore, I highly welcome the publication of her doctoral thesis in this quality-controlled monographic series of the *Hochschulverband Informationwissenschaft* (University Association Information Science/Germany, Austria, Switzerland).

Dr. Tüür-Fröhlich's academic path to sciences has been atypical. First, she earned a four year bachelor of arts in special education from the University Tallinn /Estonia. Later she followed joint master studies in comparative social policy (at MRU Vilnius/Lithuania, UT Tampere/Finland and JKU Linz/Austria). Already her master thesis was closely linked to information science. Her extensive scientometric study on the authorship structures of three social sciences journals was awarded "best student work in information and documentation" by the Austrian Society for Documentation and Information (2<sup>nd</sup> ÖGDI-Award).

Terje Tüür-Fröhlich has presented her investigations on endogenous database errors (her doctoral thesis) at numerous meetings of various disciplines (e.g. communication science, science studies, sociology, information science) and received mixed resonance. The main criticism was: substantial research cannot merely consist in qualitative individual case studies, to be precise only in analyses of individual database records. You must perform quantitative analyses en masse!

In her doctoral thesis Dr. Tüür-Fröhlich has developed methods or modified further existing research methods (she calls it "ping-pong" and "snowball"). Her research results show clearly that in the age of Big Data and the ever increasing belief in inductivism and in the automation of research qualitative, intellectual, detailed analyses still remain indispensable. The severe endogenous SSCI database errors discovered by Terje Tüür-Fröhlich – for example, numerous phantom authors or phantom works generated out of fragments of mixed footnotes – could hardly be detected by the usual automated analyses.

Prior to this publication Dr. Tüür-Fröhlich was warned by several colleagues, “for heaven’s sake” not to publish her doctoral thesis as a book. She was suggested to slice the whole work into small journal articles, the well-known “salami tactics”. But in arts and humanities quality-tested books still have high status (and high impact). The most important advantage of a book over a journal article: due to the detailed documentation of methodological procedures and results – which is hardly possible in the usual limited space of journal articles – the intersubjective verifiability of the study is guaranteed.

In the sciences, worrying trends have been identified which have to do with the ubiquitous evaluation delusion. A “reckless criticism” (Karl Popper) analysis of errors, mistakes, biases and ambivalent side effects of dominant evaluation practices, the development of constructive alternative proposals, which are anchored in the normative theory of science and ethics of science could provide arguments and perspectives, in order to get out of the vicious circle of “publish or perish”. Criticism is an essential element of scientific rationality. It cannot be replaced by automated big data analysis.

So far quantitative studies of science and information science, normative philosophy of science and ethics of science, as well as cultural and social sciences theories have rarely come in close contact. Together – as interdisciplinary joint studies – they would promote the processes of scientific communication and evaluation and thereby contribute to the growth of knowledge. I am convinced that Terje Tüür-Fröhlich’s doctoral dissertation is a pioneer work in this direction.

*Volker Gadenne*