



FLORIAN THIERY M.SC.

LINKED GEODESY

# WORKING PAPERS



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MAINZ, GERMANY

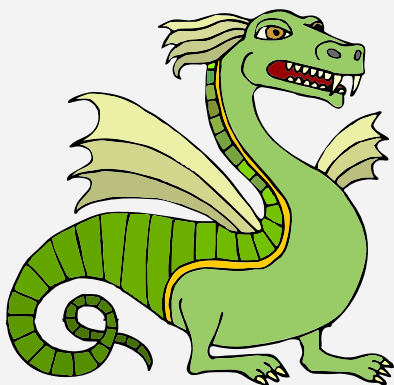
*Working Paper*

# HIC SUNT DRACONES! THE MODERN UNKNOWN DATA DRAGONS

FLORIAN THIERY, MARTINA TROGNITZ,  
ETHAN GRUBER, DAVID WIGG-WOLF

The world of digital data is full of unknown data, with are not FAIR (Findable, Accessible, Interoperable and Reusable). This modern species of dragons on a (digital) map of the internet as sign for unknown and dangerous areas, the unknown digital data dragons, have to be resolved by digital techniques. We could use the Semantic Web and all of its ideas for this challenge. This paper focuses on data dragons in the humanities domain, especially in archaeology and proposes ideas to overcome the data dragons to achieve FAIR LOUD in archaeology!

<https://doi.org/10.5281/zenodo.3345711>



*Working Paper*

# SPHERE 7 DATA: LOUD AND FAIR DATA FOR THE RESEARCH COMMUNITY

FLORIAN THIERY



The world of data modelling, publishing and sharing has changed rapidly in the last years. Starting from the invention of the World Wide Web in 1989 by Sir Tim Berners-Lee this Web is on an evolution to the so called Web 4.0. Before we will reach that we have to ll the Semantic Web as part of the Web 3.0 with resources and research content. Therefore the 5 star open data principles, the Linked Open Data principles, the 5 star LOUD principles and the FAIR principles are necessary. I will merge all of that principles in the so called Sphere 7 Data principles, described in this paper.

<https://doi.org/10.5281/zenodo.2643469>

*Working Paper*

# ARCHAEOLOGY 4.0: ARCHAEOLOGY IN THE THIRD ERA OF COMPUTING

FLORIAN THIERY



We are in the middle of the digital transformation era, which, as a digital revolution, affects society in economic as well as in scientific terms. This digital revolution as a third part of industrial revolution is based on digital technologies that have already become established in individual stages in various areas of life. Terms such as Industry 4.0, Work 4.0 and Web 4.0 are lived reality in our digital society. Archeology has also undergone a digital transformation from an analogous science to an Archaeology 4.0. Starting with an analogue era, in which research data was kept in books, followed by a digital era in which digitization progresses and data are published on the WWW, followed by a semantic era, in which semantic modelling and publication of Linked Data is reality, we end up in a knowledge era, in which the analysis and the creation of new knowledge through machines will be reality.

<https://doi.org/10.5281/zenodo.2629595>

*Working Paper*

# TOPI.LINK: THE NORTHERN AND SOUTHERN ONTOLOGY

FLORIAN THIERY

The Linked Geodesy Research Project `topi.link` combines geodesy and Linked Data research questions. Using the Academic Meta Tool (AMT), we have a little minion, which addresses the task of inferencing vague graph data. `topi.link` will give access to the AMT world using toponyms as a graph-based vague topology for these toponyms. This paper demonstrates a very simple example how to model a north/south ontology using AMT.

<https://doi.org/10.5281/zenodo.2635490>

