

MEDEA - Modellierung semantisch angereicherter digitaler Edition von historischen Rechnungsbüchern

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13. März 2018, Graz

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1 Einleitung

1.1 Aufbau der Arbeit

1.2 Literaturüberblick

2 Digitale Edition von historischen Rechnungsbücher

TOMASEK und BAUMAN beschreiben ein Modell eines interpretativen Markups, um Beziehungen zwischen Individuen, Geld- Güter- und Dienstleistungstransfer, die Doppeleintrag-Buchhaltung umfassend auszuzeichnen. Die Auszeichnung basiert auf den ausdrucksstarken Richtlinien der TEI.¹

Rechnungsbücher als Primärquelle haben eine lange Tradition, Doppleibuchung, bis Excel Rechnungsbücher wie, die der Stadt Basel sind tabellarisch angelegt, doch gibt es auch Quellen, wie etwa eine handgeschriebene Quittung für die Buchung eines Zimmers, in der die Semantik des Transfers im Text liegt. TEI eignet sich, so der Zugang von TOMASEK und BAUMAN, um solche Quellen mittels TEI auszuzeichnen. Rechnungsbücher sind nicht unbedingt tabellarisch. [S.3-4]

Einfache Transkription im Sinne von Text und Zahlen in tabellarischer Form.

One research corpus is

there might be methods of markup for HFRs that would take advantage of the longstanding existence of TEI standards for markup of text, both print and manuscript, to promote creation of large corpora of accessible digital versions of HFRs that might be used for historical research. [S.4-5]

Double-entry bookkeeping uses a specialized vocabulary, a professional jargon in which the terms 'debtor' and 'creditor' have particular meanings. As a system, it models a set of relationships between transactions recorded in the journal and accounts kept in a separate ledger. Both Paciolo and Mair considered two separate books essential for keeping double entry accounts: the daybook or journal and the ledger. Transactions between a local businessman and his customer were recorded chronologically in the journal, with a reference in the far left column to the page in the ledger where the businessman recorded the customer's ongoing debt and the times when the debt was settled. Thus, we see from this page in Laban Morey Wheaton's daybook that on October 2, 1849, George W. Braman purchased three cords of hardwood for \$12.75 and one of small hardwood for \$2.00, for a total debit of \$14.75.

This transaction was recorded as a credit to the debit side of Braman's account in Wheaton's ledger. That is, Wheaton recorded that he had extended credit to Braman in the amount of 14.75, to be paid at a later date, and we see that Braman settled his account with Wheaton on January 1, 1850. 19 In this way, Braman's account demonstrates Wheaton's adherence to

¹Vgl. TOMASEK, Kathryn/BAUMAN, Syd: Encoding financial records for historical research. Journal of the Text Encoding Initiative 2013 Nr. 6, S.1-2, <http://journals.openedition.org/jtei/895>, 08.03.2018.

the principles of double entry accounting as prescribed by Pacioli and Mair. Other accounts in Wheaton's daybook and ledger do not match up so neatly, and Wheaton is by no means the only merchant who kept less than perfect books. The popularity of double entry accounting could not guarantee perfect adherence to its principles. Human use of standards of any sort is subject to human error and idiosyncrasy. Nevertheless, use of double-entry accounting has persisted over several centuries, so developing guidelines for its markup seems prudent. [S.9-10]

2.1 Single-Entry-System

2.2 Double-Entry-System

<http://flegesunde.com/category/miscellanea/die-geschichte-der-doppelten-buchfuhrung.php>

2.3 Transaction Model

Transactions consist of main components, which may be summarized as 'what', 'from whom', and 'to whom'. TOMASEK und BAUMAN are pointing out four categories of transaction:

- A standard exchange Two transfers exists, where money or goods are purchased from one account to another. Like Christopher gives Georg 1 Euro and receives an apple.
- A barter, the exchange of goods without money. Like Christopher gives Georg 1 Cow and receives an apple
- A gift, which is a uni-directional transfer. Christopher gives Georg an apple
- . A set of transfers between more than two entities., as a multilateral trade.

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²TOMASEK/BAUMAN: Journal of the Text Encoding Initiative, Nr. 6, 2013, p.13-15.

3 Anhang

3.1 Technical Implementation of the Datamodel

3.1.1 Validating Workflow

The data model is formalized in RDFs.³ Using the XML-Editor Oxygen⁴ the source code of the RDFs written by hand supported by using a couple of tools for syntactically, conceptually and logically validation.

Oxygen offers a syntactically validation using the RDFs-Scheme.

The RDF Validation Service⁵ is another Web service helping to check if the RDF is correct. WebVOWL⁶ is a easy way to visualize RDFs and OWL. This is a low-threshold way to check if the model is conceptual correct. It shows at one glance subclasses, connections between classes by object properties and there connection to data-types by data properties and if the graph is closed.

The ontology Editor Protégé⁷ and its included OWL Reasoner HermiT⁸ can checkt the logically consistence of an ontology.

³RDFs, <https://www.w3.org/TR/rdf-schema>, 13.03.2018.

⁴XML-Editor Oxygen, <https://www.oxygenxml.com>, 13.03.2018.

⁵RDF Validation Service, <https://www.w3.org/RDF/Validator>, 13.03.2018.

⁶WebVOWL, <http://vowl.visualdataweb.org/webvowl.html>, 13.03.2018.

⁷Protégé, <https://protege.stanford.edu>, 13.03.2018.

⁸HermiT OWL Reasoner, <http://www.hermit-reasoner.com>, 13.03.2018

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