

## **The CEDAR Project: Classifying the Dutch Historical Censuses**

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The censuses are a rich source of historical information for researchers providing demographic, social and economic structures, yielding a wealth of data on many issues in the course of time. The Dutch historical censuses are currently digitized, but notoriously difficult to compare, aggregate and query in a uniform fashion: meaningful historical information is currently hidden in thousands of disconnected Excel Files and over 2,300 tables of aggregated data. The CEDAR project (eHumanities group) aims at enabling greater access and use of this dataset by applying a specific datamodel (exploiting the Resource Description Framework RDF technology), to make census data interlinkable with other hubs of historical socioeconomic and demographic data; and various harmonization practices. A large part of census data harmonization depends on the classification of the data. Querying these RDF data, we create visualizations in order to explore the thousands of variables in our data set and create bottom up classifications for housing variables, occupations, religious denominations, and so on. These visualizations correspond to different moments in history. We leverage animation techniques to display the conceptual changes that modified the social landscape in fundamental centuries of Europe's history.

#### Bio Ashkan Ashkpour

Ashkan Ashkpour is a PhD candidate at the International Institute of Social History and Erasmus School of History, Culture and Communication, Erasmus University Rotterdam. Ashkan holds a bachelor degree in Business IT and a Master of Science degree in Economics and Informatics from the Erasmus University. The topic of his PhD research is the 'theory and practice of data harmonization' with specific focus on harmonization issues of historical Dutch census data. His current research interests include (among others) the harmonization of historical data, dynamics of societal changes, scholarly collaboration, virtual research environments / laboratories, organizational and individual impacts of advanced information systems, ERP systems and strategic alignment of IT.

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Albert Meroño-Peñuela is a PhD student at the VU University Amsterdam and at Data Archiving and Networked Services. He holds a bachelor in Informatics Engineering from Universitat Politècnica de Catalunya (FIB-UPC). As a researcher he has previously worked at the Institute of Law and Technology (IDT-UAB), developing models for Law using semantic technologies. His research interests also include Linked Open Data, Data Mining, Machine Learning and Computer Graphics, and he is an enthusiast of Free Software. He also likes to spend his time playing music and reading science fiction.

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