Computational Social Science: A Literature Review
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Method
After a systematic database search on "computational social science" we added 286 articles to our sample. From these 286 articles we drew a random sample of 53 articles that are being categorised and analysed closely, using content analysis. We will take a look at both established and quoted definitions of CSS and Big Data to try to reach a level of abstraction, that will allow us to make statements about the similarities and differences in the use of CSS and Big Data amongst the different scientific disciplines. We also analyse the abstracts of all 286 articles with a cluster analysis. We then decided to create a second dataset containing 857 abstracts that quoted Lazer et al. (2009) in order to get a better picture in which fields the term "computational social science" is used.

First Results
We determined five broad categories: The first category deals with computer science, neuroscience, biology and other sciences. It is about the development of artificial life and especially artificial intelligence (Saunders / Bown 2015 and Díaz / Domínguez 2015). CSS is used, for example, to enable machine learning (Hu / Mason / Vaughan / Wallach 2014) and to better understand systems of multiple agents and man-machine communications (Conte / Paolucci 2014 and Youyou / Kosinskib / Stillwell 2015). The second category is about user-generated content from e.g. social networks. This involves on the one hand methodological questions such as datelling (Omedilla / Martínez-Torres / Toral 2014) and the development of new tools (Borra / Rieder 2014). Secondly, it also contains political issues such as political online events in China (Liu / Zheng / Chen 2016). In the third category we find forecasting and epidemiological inquiries such as Stohler (2014). The fourth category deals with the development of social science theory in the course of CSS developments and Big Data (e.g. Shah / Cappella / Neuman 2015). The question is how is social sciences are changing and may need to reposition as (a) discipline(s) in line with technical innovations. The fifth category is an "Others" category and summarises what is additionally discussed in the discourse about CSS. For example gender as part of CSS (PURUSH 2016). Policy-Making (Lettieri 2016), new forms of public theories (Tufekci 2016) and urbanisation (Wei / Ye 2014).

Introduction
New data being obtained, generated and analysed for very different purposes. The importance of big data, for example, for future social research is made clear in many writings. For example, Conte (2016) refers to Big Data as the promise of large and relatively cheap data sets as an opportunity for global data, focusing more on political decisions than on potential problems. Especially unstructured "big data" will be a major challenge for social science research methods. For example large amounts of texts can only be handled with advanced computational methods. Creating these methods will require the knowledge and theoretical background collected over the past 100 years in the qualitative social science approach.

References

Outlook
The definitions of CSS are broadly fanned and quite different and are still to be analysed and categorised to find a common denominator. Cioffi-Revilla, for example, argues (2014):

"The new field of Computational Social Science can be defined as the interdisciplinary investigation of the social universe on many scales, ranging from individual actors to the large largest groupings, through the medium of computation."

Other studies define CSS as a better understanding of social behaviour (Stromhofer / Wagner 2014). Still others put instrument based CSS in line with microbiology, astronomy or nanoscience (Borra / Rieder 2014). Our main goal is to detect intersections among the field of CSS and visualise opportunities for fruitful interdisciplinary approaches. For example Hu et al. (2014) address the problem of dealing with large corp of texts. Computational Social Science is an interdisciplinary field and therefore cooperation is a necessity. We want to illustrate opportunities for cooperation. Topic modelling and qualitative social research is only the beginning.

857 abstracts that quoted Lazer et al. (2009):