Press Information

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Big Data and Accounting: Center for Financial Reporting and Auditing workshop at ESMT Berlin analyzes natural language processing in financial markets

Regulatory innovations in the area of financial and non-financial reporting require corporations to provide rich information not only on their financial activities, but also on their corporate governance and sustainability activities. Thus, corporate information is increasing, especially non-numerical data, such as texts, images, and videos. Using this as a starting point, the Center for Financial Reporting and Auditing (CFRA) at ESMT Berlin analyzed natural language processing in financial reporting at a workshop held on November 16, 2019.

Key findings of the workshop:
- Steven Young from Lancaster University communicated the potential of exploring textual data via statistical methods such as machine learning. He stressed that automated data processing complements but will never fully replace careful reading of reports by humans.
- Nicolas Pröllochs from University of Oxford introduced a refined training method for sentiment analysis at the sentence level, a task that is almost impossible with traditional approaches. He presented a use case based on ad hoc filings by German firms and demonstrated how his approach could be applied by investor relation professionals.
- Beatriz García Osma of Universidad Carlos III de Madrid demonstrated that current academic literature tends to ignore a sizable fraction of the market. Participants of the workshop suggested that some firms strategically obscure their textual disclosures, potentially due to litigation reasons.
- Ryan LaFond of Algert Global LLC stated that the investment community uses natural language processing for generating trading signals but that their methods tend to differ from the approaches used in the academic literature. He emphasized that the key success factors are data quality and the analysts' detailed understanding of it.
- Expert participants agreed that the key regulatory role is to establish open and low-friction access to financial and non-financial disclosures. From a corporate and consulting perspective, participants questioned where a strategic response from corporations and information intermediaries would lead. If these start to optimize their disclosures and reports with machine learning algorithms in mind, it remains to be seen how this interacts with algorithmic outcomes and, ultimately, with the attractiveness of corporate disclosures for the human reader.

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About the Center for Financial Reporting and Auditing (CFRA) at ESMT Berlin
The Center for Financial Reporting and Auditing (CFRA) provides a platform to strengthen the dialogue between academics and practitioners and to make highly complex research more accessible. Research is disseminated through publications, seminars, and other forms of meetings. The center focuses on questions of standard setting and regulation in financial reporting as well as auditing. It also supports broader research on the role of various forms of disclosures in capital markets. It is internationally oriented to examine the increasingly global regulation in accounting and auditing. Events of CFRA are generally open to the public. If you are interested in receiving invitations, please contact cfra@esmt.org.

About ESMT Berlin
ESMT Berlin was founded by 25 leading global companies and institutions. The international business school offers a full-time MBA, an executive MBA, a master's in management, as well as open enrollment and customized executive education programs. ESMT focuses on three main topics: leadership, innovation, and analytics. ESMT faculty publishes in top academic journals. Additionally, the business school provides an interdisciplinary platform for discourse between politics, business, and academia. The business school is based in Berlin, Germany, with a branch office in Shanghai, China. ESMT is a private business school with the right to grant PhDs and is accredited by the German state, AACSB, AMBA, EQUIS, and FIBAA. www.esmt.org