In partial fulfillment of the terms for obtaining the PhD degree, Jinling Jiang will give a lecture on the following subject:

**Improving Marketing Intelligence Using Online User-Generated Contents**

**on Thursday 30th of April 2020, 9:00, Microsoft Teams, please send a mail to chr@cs.aau.dk if you want to join the defense**

**Abstract:**
In today's complex information environment, the original marketing relationship between consumers and brands has rapidly changed. The identity of consumers has changed from the original audience to the participators in the brand building process. How to find target audience and appropriately reach them so as to increase conversion rate is of great challenge. Meanwhile, different kinds of marketing channels emerge and cover consumers' whole life-cycle. Nowadays there are mainly two channels for online advertising: digital advertising attracts large consumer traffic on conventional web pages, whereas social media advertising, also known as social media marketing, uses social networks, blogs or other Internet communication platforms to conduct marketing and customer service development. The intensive interaction between brands and consumers increases marketing digitization and massive volumes of user behavior data regarding online advertising has been generated and stored. This data foundation and the above challenges call for advanced techniques of utilizing online user generated contents to build intelligent marketing strategies.

First, the thesis provides an intelligent end-to-end audience expansion model under a real big data marketing environment. Second, after targeting the right audience, advertisers are scrambling for a limited number of users to pay attention to their brands and pursuing more in-depth effects of advertising. To balance the benefits between advertisers and the advertising media, click-through rate (CTR) is a widely-used and crucial metric for evaluating ad performance. The thesis proposes a dedicated deep model for estimating CTR accurately while preserving user privacy. Third, while e-commerce is growing at a fast rate, an advertising strategy would not just focus on its e-commerce functionality; it should provide online-to-offline (O2O) services as well. Utilizing large-scale data management techniques, this thesis exploits social media data to recommend experts for O2O services regarding various geo-related information needs. In this way, users can look for online opinions efficiently and effectively in order to get satisfactory offline services. Fourth, as online pages are increasingly filled with various kinds of ads, advertisers are faced with the challenge of finding new ways to build relationships with their customers. Especially for O2O marketing, "influencer marketing" is an effective way to build a bridge between digital world and offline services. Imagine if audience are concerned about what someone wears on the social media, what to eat and drink, they will pay attention to it. The thesis designs hybrid user profiling techniques, a dedicated index structure and advanced pruning mechanisms for the search of local influencers around certain topics in Twitter.

Members of the assessment committee are Professor Karine Bennis Zeitouni, University of Versailles Saint-Quentin, Associate Professor Raymond Chi-Wing Wong, Hong Kong University of Science and Technology, Associate Professor, Christian Thomsen, Aalborg University. Professor (MSO) Hua Lu is Jinling Jiang’s supervisor. Moderator Associate Professor Simonas Šaltenis.

All interested parties are welcome.