



The Machine in Multimedia Analytics.
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This thesis investigates the role of the machine in multimedia analytics, a discipline that combines visual analytics with multimedia analysis algorithms in order to unlock the potential of multimedia collections as sources of knowledge in scientific and applied domains. Specifically, the central research question of this thesis is how to enable the machine to assist the user in the knowledge gain objective of multimedia analytics. The thesis presents four works contributing towards the answer to this question. The first work presents an integration of the theories of the constituent fields of multimedia analytics into a single multimedia analytics model. The second work provides an instantiation of the multimedia analytics model in the domain of venue recommendation. The third work addresses the question of how to evaluate multimedia analysis algorithms in a multimedia analytics context. Finally, the fourth work focuses on the problem of scaling automatic multimedia analysis algorithms to large-scale collections such that they are both relevant and interactive.