## **Foreword**

Digitization has an enormous impact on the media industry. While the music- and in part also the book industry have already been analyzed thoroughly under the aspect of digitization, scientific discussions are devoid of in-depth analyses regarding the possibilities and consequences of digitization in the movie and television business. Various individual aspects have indeed been discussed. However, assuming a continuous and ubiquitous digitization of production and distribution, an overview covering all aspects of entrepreneurial activities, notably in the film business, is missing. The film industry is currently still employing rather traditional criteria and has seemingly only opened itself to digitization in certain areas. There is no reason, however, why in the area of movie production the entire process could not be controlled and managed digitally. The project networks, which are the typical organization forms within the movie business, could then be set up and coordinated in a completely different way.

This view forms the background for the author's dissertation. His research questions and objectives take into account the current status of Information System Management research in this area. The author's immediate goal for his research project is to develop a specific reference model for the movie industry which could in general be utilized by a majority of film production companies; this also forms the universally applicable value of his research project. The methods have been chosen correspondingly: Information System Management - methods of reference modeling as well as case study methods have been used to allow an interchange between induction and deduction during reference modeling.

The author explains the particularities of the movie business. The various components of the value chain of movie companies are highlighted from various angles. The author discusses business strategies, different forms of organization as well as the standards for digital components in the movie production. He explains the core phrases of Strategic IS and IT Management and Strategic Enterprise Architecture Modeling important for this paper. Business modeling is introduced with reference to ARIS, and the concept of Service Oriented Architecture (SOA) is explained. The phrase Reference Modeling as well as the Unified Modeling Language (UML2) as the choice of modeling language is discussed.

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An explorative case study analysis of a major movie production institution in Hollywood serves as empirical basis for the reference modeling. The author describes the current processes and structures of movie production in using Use Case Diagrams represented in UML. The reference model should consist of organizational, data, application, technical, and information architecture. The organizational architecture was established by the author through the connections between departments, actors and their respective roles. Data architecture refers to the audio-visual elements of a movie, and in respect of this the author relies primarily on MPEG-7 as descriptive language. In the application architecture one can see the connections between management and operative roles, the cinematic artifacts and the Use Cases in the sense of sub-processes. The technical architecture comprises components and services which need to be made available within the production organization. The author utilizes Service Oriented Architecture as framework for the modeling. Finally, information architecture shall highlight the dynamic aspect of the production system. The complexity of the connections to be considered for a digital illustration of the production system becomes clear.

The value of this work lies primarily in the in-depth survey and the modeling of a practice, which has not yet been analyzed in detail in scientific literature, notably the practice of movie production. The latter is particularly affected by the development in digitization. At present, it is difficult to judge whether the enterprise architecture model presented here shows sufficient dynamic and flexibility to cope with further advances in digitization which are still to be expected. In any event, this analysis enables the current changes in the movie business to be more easily examined in a systematic way. Moreover, it should greatly assist management to improve the transformation of their information and organizational structures under the influence of digitization as well as of component-based movie production. Finally, this analysis can make a significant contribution to project networks in the digital movie business to being able to receive the best possible IT-support.

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