Title: The Contribution of Multimedia Technology to Develop Mobile Information Systems for Museums

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Abstract—The increasing demands for mobility and mobile information systems are an essential aspect of social development. Visitors would like to engage themselves in an open discussion with the society and its cultural and technical offerings, - that means away from a passive approach towards to more participation. In cooperation with various Museums, the ‘Hochschule für Technik und Wirtschaft’ in Berlin developed within their project, an infrastructure for a mobile multimedia museum. Young people can explore the contents of the exhibition at their schools and deal with relevant issues in more detail. The concept of a mobile museum provides knowledge through a youth-friendly offer involving technical approaches that allows a direct participation. This makes the visit of the mobile exhibition more attractive and enhance the user experience. This includes:

- Multimedia presentation of museum artifacts in a youth-oriented offer;
- Context-sensitive presentation by using of location-independent multimedia application in addition to the exhibits;
- Use of serious games to promote the knowledge of science, history, culture and technology;
- Development of mobile interactive applications by using RFID/NFC Technology

All elements of the mobile museum have to stay in constant motion to serve the high demands of technical autonomy by using energy efficient systems. What is needed is an exhibition platform, which provides areas of interactive applications to connect informal education and fun by using methods of serious games. Analog and multimedia interaction and social interaction are combined with a communicative process that leads to the exchange and discussion. So during the project period various multi-media applications were developed. The aim is to challenge young people through modern forms of communication by combining analog and digital elements.