Augmented Reality: New Relations with the Architectural Heritage Education

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Abstract : The technologies related to virtual reality and augmented reality in combination with mobile technologies, are being more consolidated and used each day. The increasing technological availability along with the decrease of their acquisition and maintenance costs, have favored the expansion of its use in the field of historic heritage. In this context it is focused, in this article, on the potential of mobile applications in the dissemination of the architectural heritage, using the technology of Augmented Reality. From this perspective approach, it is discussed about the process of producing an application for mobile devices on the Android platform, which combines the technologies of geometric modeling with augmented reality (AR) and access to interactive multimedia contents with cultural, social and historic information of the historic building that we take as the object of study: a block with a set of buildings built in the XVIII century, known as "Quarteirão dos Trapiches", which was modeled in 3D, coated with the original texture of its facades and displayed on AR. From this perspective approach, this paper discusses about methodological aspects of the development of this application regarding to the process and the project development tools, and presents our considerations on methodological aspects of developing an application for the Android system, focused on the dissemination of the architectural heritage, in order to encourage the tourist potential of the city in a sustainable way and to contribute to develop the digital documentation of the heritage of the city, meeting a demand of tourists visiting the city and the professionals who work in the preservation and restoration of it, consisting of architects, historians, archaeologists, museum specialists, among others.
Keywords : augmented reality, architectural heritage, geometric modeling, mobile applications
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