

Augmented Reality Services of Photos and Videos from Filming Sites Using Their Shooting Locations and Attitudes

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Abstract—Usually lots of photos and videos are recorded additionally to capture the scenes of many filming sites of dramas and movies. When people visit the sites later, however, they can rarely experience these contents again. The objective of this study is to exploit these photos and videos from filming sites together with their shooting locations and attitudes in order to provide users with AR (Augmented Reality) tourism services. Users will be able to experience as if they are at the site just at the time of filming. We designed and made an external attachable device for DSLR (Digital Single-Lens Reflex) cameras to log shooting locations and attitudes. We also implemented syncing software and defined data formats to integrate these data with photos and videos. We implemented mobile AR tourism apps for iOS and Android platforms. We adopted FAST (Features from Accelerated Segment Test) algorithm with additional modification for AR visualization of photos in mobile environment. We adopted Ferns algorithm, histogram specification and OpenGL texture mapping for AR visualization of videos with better performance. These apps and the results of this study were evaluated at actual filming sites of several dramas, and the survey of many filming staffs was conducted for feedbacks. The results of this study could be applied many other fields concerned with multimedia contents.

Keyword—Photo, Video, Location, Attitude, Filming Site, Augmented Reality



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