VIENNA UNIVERSITY OF TECHNOLOGY
DEPARTMENT OF GEODESY AND GEOINFORMATION

A GIS-Based Approach for A Collective Solution in Design

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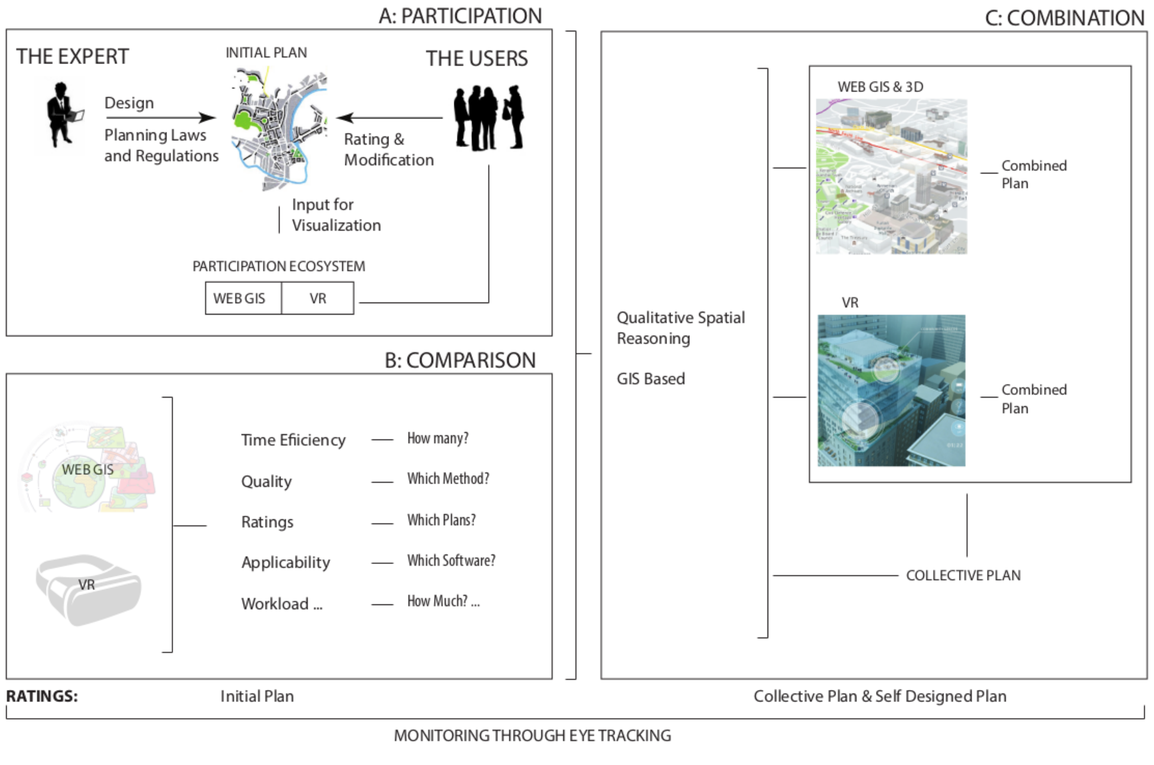
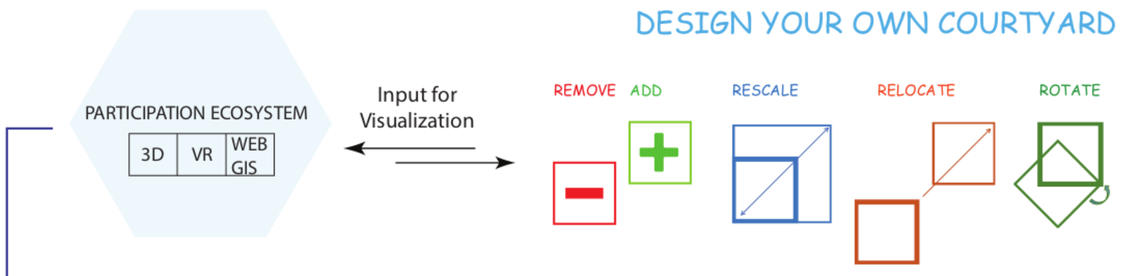
INTRODUCTION



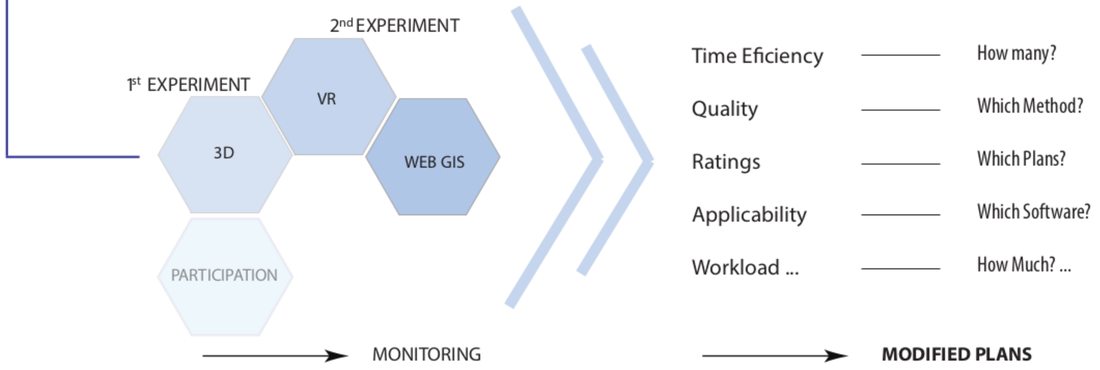
GIS-BASED COLLECTIVE SOLUTION

STEP 1: PARTICIPATION

The existing design of the designated area converted into 3D and VR environments in which participants will be allowed to modify the design elements within defined rules and according to their preferences.

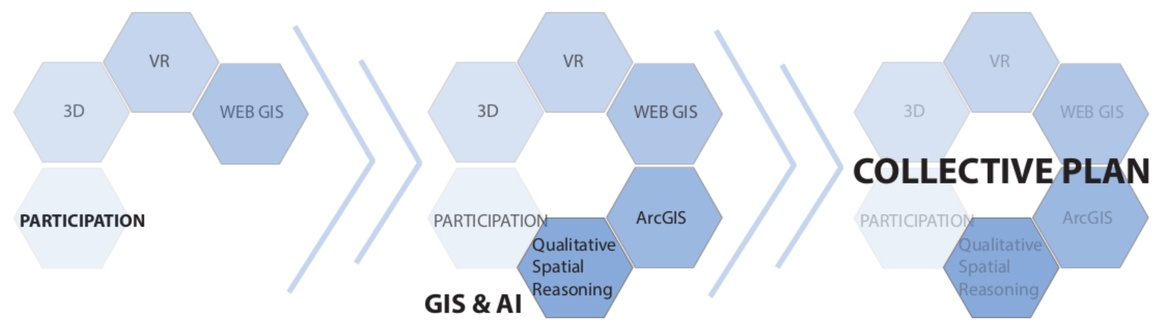


STEP 2: COMPARISON



The comparison of the participation processes on Web GIS and VR platforms, as well as the pa rticipant's approaches towards different tools and plans created on the two platforms. The comparison will be made in terms of the time efficiency regarding the public participation process, quality of the application platform and obtained plans, rating results, the applicability of the tools, and the users' assessment of the level of difficulty.

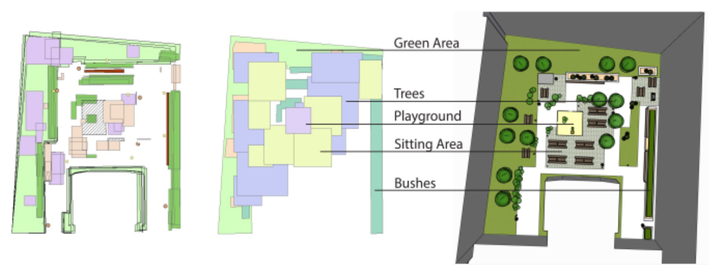
STEP 3: COMBINATION



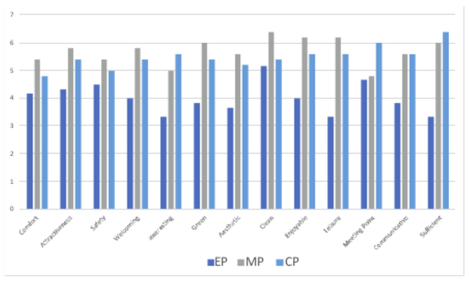
Within this phase of the project, the modified plans combined get a deeper understanding of the level of interaction of the participants with the tool and the design. In the scope of the first experiment, the combination phase covered the collective analysis of the modified plans (MPs) by the utilization of geospatial methods The collective plan should reflect the preferences of all participants and guide the designer for creating a collective solution. The opinion survey was also applied in the final stage, where each participant was also asked to rate their own MP and the CP.

RESULTS

As a result of the first experiment in 3D environment, all participants were agreed on "the experiment was interesting and exciting". The CP provided better results in each property comparing to the EP. Furthermore, it also achieved better results compared to the MPs in terms of achieving interesting, communicative, and sufficient areas which can be seen as a meeting point for the users.



GIS based approach for a collective solu-



Comparison of Existing, Modified and

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