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Título	Cityzoom's Visual Dominance Analysis: visibility analysis in urban environment
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TÍTULO DO TRABALHO: Cityzoom's Visual Dominance Analysis: visibility analysis in urban environment

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RESUMO:

Strategies aimed at preserving the visual relevance of historical buildings (LEHNERER, 2009) may, in some cases, prevent new designs to be built in old and traditional areas. The preservation of traditional areas is invariably subject to discussions involving politicians, entrepreneurs and local communities. The discussion is frequently impregnated with passionate arguments and very few objective data.

In this paper it is argued that objective data could emulate less passionate discussions and lead to more consistent conclusions. Visualization Models can help to structure public opinions based upon quantitative and qualitative assessments of the urban scene. CityZoom's Visual Dominance Model quantifies the visual impact of buildings from multiple points of view. The Model is applied in the present study to demonstrate how analytical assessments of visual interference could be used to mediate the discussion about the construction of new objects in preservation areas. Two methods for the description of buildings' Visual Dominance were tested: a) one that estimates the visual impact of a building from the percentage of the observer's field of view occupied by the analyzed building and b) an alternative which uses a point cloud to indicate the points of view from where the most of a specific building is visible. Both methods were applied to a case study in the city of Porto Alegre, Brazil, in which new buildings were simulated near a church of historical interest and the Visual Dominance of the simulated buildings and of the historical church was computed. The analysis has indicated that CityZoom's Visual Dominance parameter can be used to describe quantitatively the visual impact of a building in an observer's field of view.