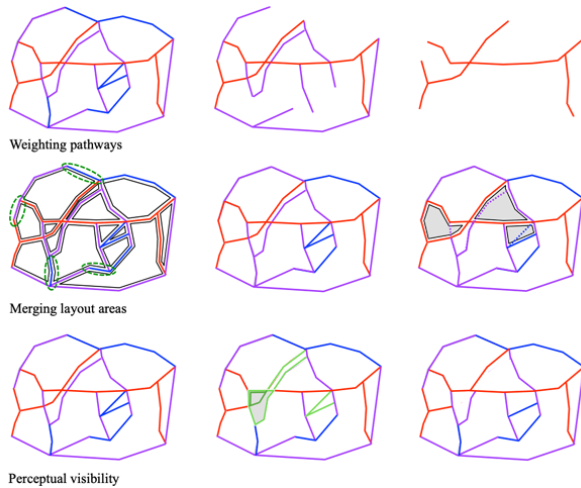


# An overview of generalization techniques for street networks

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Generalization of 2D city layouts is a relevant operation common to Computer Graphics and GIS, whose goal is to generate simplified representations of street networks. However, most of the contributions in this area belong to the GIS literature, which we intend to bring closer to the CG community. In this paper we propose a three- fold characterization of the algorithms dedicated to generic generalization and we also analyze the techniques proposed for the generation of personalized route maps in CG. We examine their data structures, simplification criteria and theoretical basis. To enable a comparative

comprehension, we propose unified terminology and we refer the graphs used in the GIS literature to their name used in graph theory. From our analysis of the generalization techniques, we propose four research lines for further investigation to design new generalization algorithms, either from original ideas or by combining/extending some of the reviewed techniques.