Personal Geography in GIS

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We often evaluate choices in geography (on issues such as migration, commuting and social plans) with our contacts (alters) contributing to a place's "attractiveness". For instance, upon marrying, one may inherit his spouses', small, distant hometown as a frequent destination. Yet in a more generic model of "attractiveness", the gravity model, this behavior is unlikely--due to small population and high cost distance from his home. When learning about his social network; it becomes clear. Cartographic studies on mental maps are a good example, and we attempt to reflect this paradigm by shaping one's personal map by weighing places where one's alters with certain demographic and social properties reside.

We automatically retrieve and cartographically model an individual's geo-located 300+ person social network (SN) graph, over time, from a public SN website. Using mathematically-derived methods from SN literature, we cartographically map groups (such as cliques and social "circles"), alters with features of interest (such as "high degree", i.e. many connections). The cartographic result can be used in both raster and vector form, at different time scales, and using different demographic parameters.

Results depict a more realistic cost surface upon which we valuate places in geography. Our focus is to show how SN data can be mechanized in a cartographic environment to better understand how humans evaluate choices in geography.