



Business Analytics

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Analytics

Gartner: Critical Capabilities for Business Intelligence and Analytics Platforms

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Page 40... leader in geospatial, location analytics and real-time use cases.

Page 44 ... Analytic Dashboards & Content ... The ability to create highly interactive dashboards and content with visual exploration and embedded, advanced and geospatial analytics to be consumed by others.

Page 45 ... Geospatial and location intelligence: How does the product support specialized geospatial visualizations, such as shape and mini-chart positioning (pie charts, for example) and region color fill, geospatial data layering

Analytics

The discovery and communication of meaningful patterns in data;

to describe, predict, and improve business performance

Huff Model of Spatial Interaction

$$P_{ij} = \frac{A_j^\alpha D_{ij}^{-\beta}}{\sum_{j=1}^n A_j^\alpha D_{ij}^{-\beta}}$$

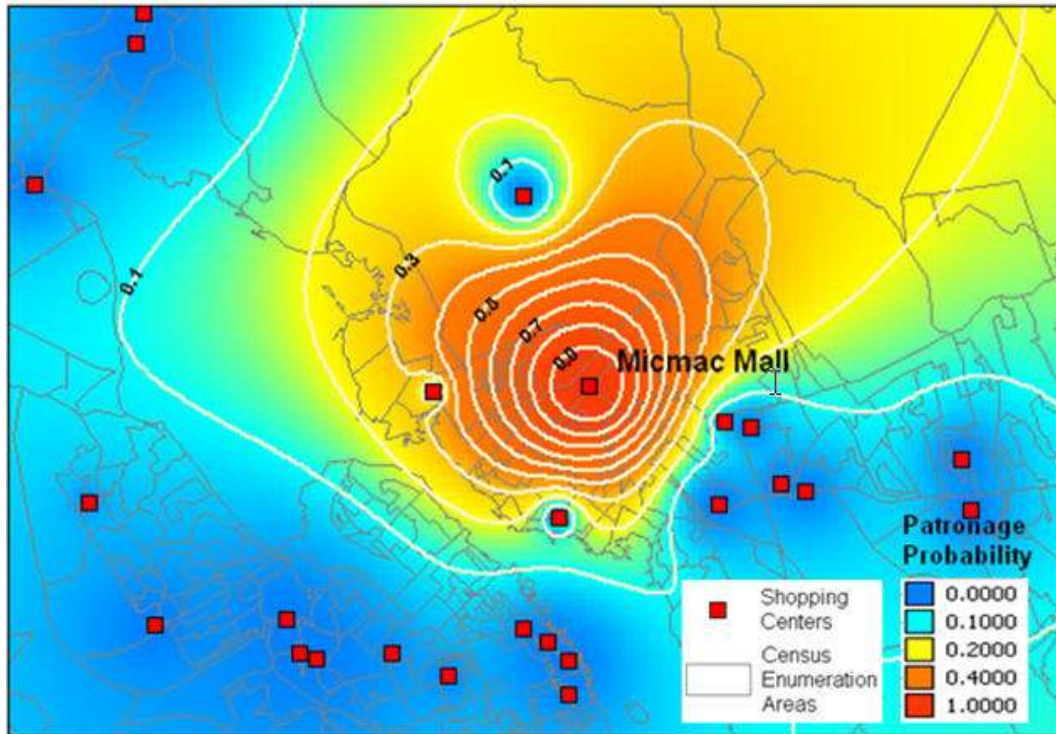
One measure of probability: Census Demographics

Lower	Upper	Population	Dwellings	Families	Households	AvgHouseholdIncome	UnemploymentRate
0	0.1	242,372	95,045	65,059	93,818	33,817.54	7.95
0.1	0.2	18,358	6,847	4,969	6,807	34,040.37	9.12
0.2	0.3	8,651	3,470	2,415	3,449	42,207.59	9.97
0.3	0.4	4,251	1,921	1,201	1,910	30,029.52	11.39
0.4	0.5	3,251	1,572	898	1,568	30,369.35	10.95
0.5	0.6	2,059	1,001	557	999	32,619.33	11.44
0.6	0.7	1,893	941	502	940	33,353.73	7.65
0.7	0.8	1,257	586	359	585	43,450.33	6.09
0.8	0.9	987	422	291	421	53,292.33	5.68
0.9	1	751	314	224	313	52,687.80	6.82

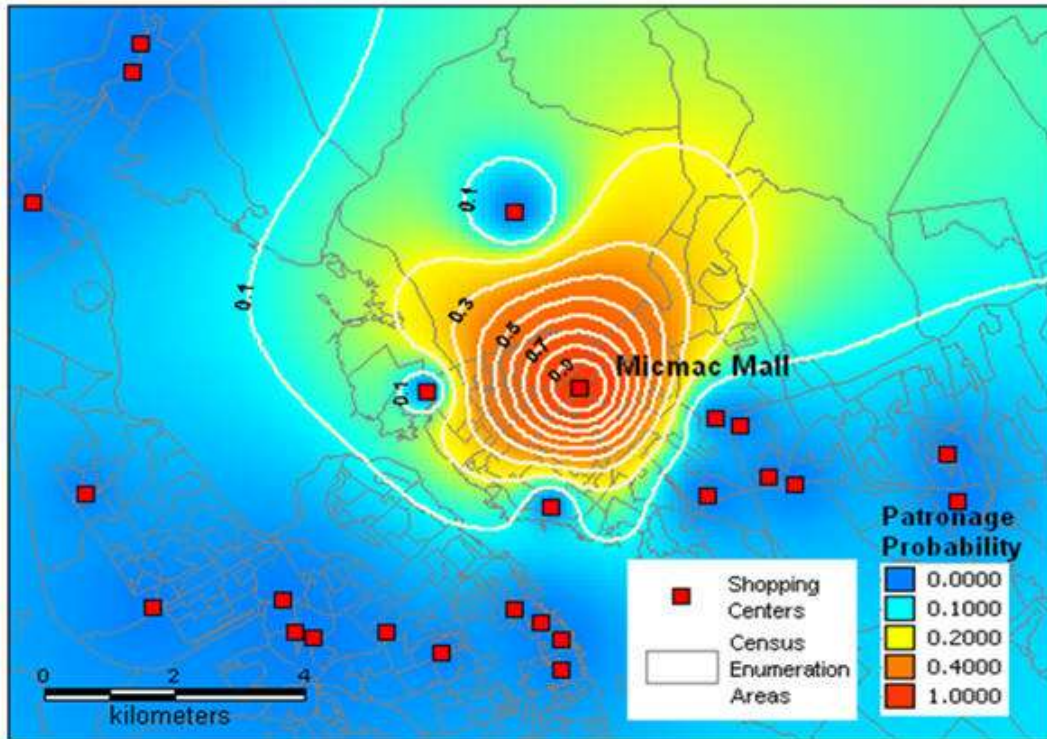
Analytics

*The discovery and
communication of
meaningful
patterns in data*

Customer Patronage Probability Map for Micmac Mall, Dartmouth, Nova Scotia Using Gross Leasable Area (GLA), Number of Stores and Number of Parking Spaces as Attractiveness Variables



Customer Patronage Probability Map for Micmac Mall, Dartmouth, Nova Scotia Using Gross Leasable Area (GLA) as Attractiveness Variable

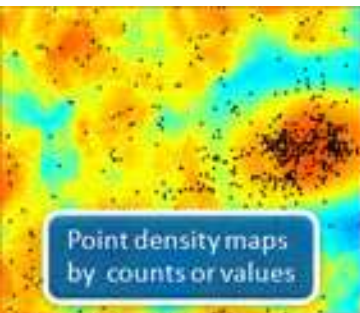


Dr. David Huff, Univ. Texas, School of Management
1931-2014



Analytics

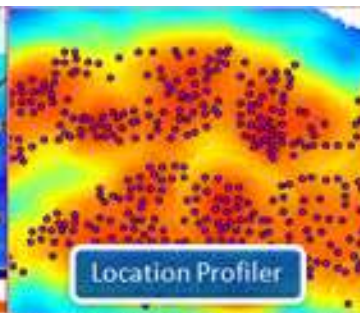
*The discovery and
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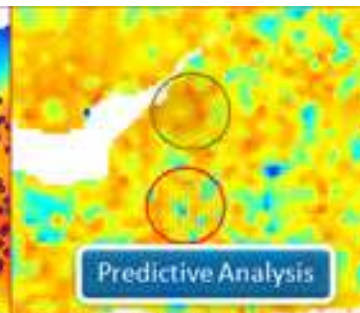
Point density maps
by counts or values



Trade area modelling



Location Profiler



Predictive Analysis

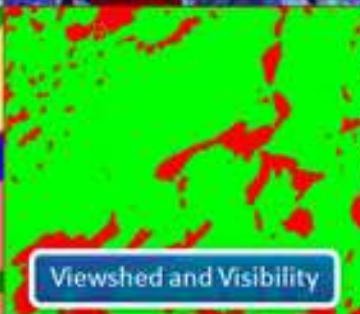


Grid Interpolation – Point Data into Continuous Surfaces

Classified Grids



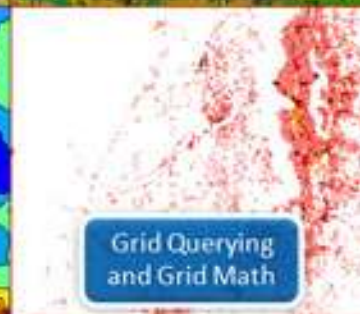
Region to Grid



Viewshed and Visibility

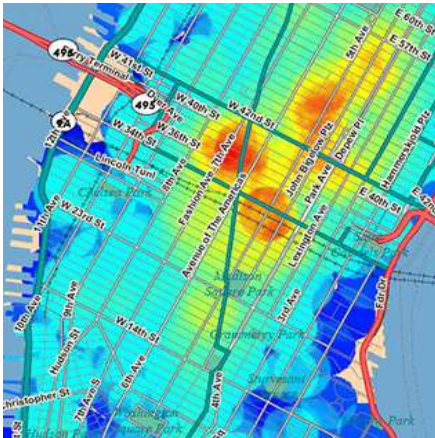


Contours



Grid Querying
and Grid Math

Location Intelligence



Visualization

$$P_{ij} = \frac{A_j^\alpha D_{ij}^{-\beta}}{\sum_{j=1}^n A_j^\alpha D_{ij}^{-\beta}}$$

Analytics



Data Fusion



Thank you

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