**Case Study 2 – Real-Time Location System Analysis**

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**Introduction**

Business’s today often need to know where items/people/machinery at any given point in time, in a specified area. Tracking items indoors provides an interesting challenge as conventional methods (GPS) for establishing location don’t work well indoors. Nolan and Lang propose an innovative solution to this problem by combining machine learning techniques (K-Nearest Neighbors), and wifi signals in order to create an indoor map that can locate and estimate where a given object/person/thing by assessing its signal strength to various access points (wifi routers) placed throughout that area. This information proves vital to optimizing workflows for how objects move throughout a space, and how improve upon their future handling to best accommodate the business’s needs.

**Data**

Initially researchers mapped the static signal strengths of locations throughout desired spaces in order to