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Internet changes personal connections

The chief purpose of research is to aid in understanding. From a practical perspective, an analytical understanding of a phenomenon we observe in practice helps us to explain or predict. Perhaps due to the widespread connectivity enabled by the Internet and cellular telecommunications, different patterns of relationships both within and across organizations are emerging.

Part of the adoption and growth of online social networks, such as LinkedIn, Facebook, and Twitter, is that “who you know” and “who knows you” is a valuable intellectual property—so much so that these services are “free” to end-users. New, mainstream analytical techniques to help explain and predict such value are emerging, and complement existing economic theories of value.

Readers may recall from their college-level statistics course that *independence* of observations is a key requirement of data sampling methodology. It is important that the sample is representative of the population, especially when the distribution of one or more samples will be eventually compared to one or more hypothetical distributions (usually the “normal” distribution).

One of the major conceptual differences in network analysis is the assumption of *interdependence* of observations. Methodologically, network theory assumes that all observations are connected, even if only in infinitesimally small, non-linear, dynamic relationships. Statistically, researchers compare the distribution of one or more samples with one or more exponential random graph models.

A brief starting point for learning about the background theory and applicable practice of social networks can be found on Wikipedia. A freely-available software tool for preliminary network analysis is “netdraw.” An introductory tutorial on the subject of network analysis is available at <http://faculty.ucr.edu/~hanneman/nettext/>.

Although the above materials are readily available for use, often a consultant is needed to administer the process. At a minimum, this process includes data collection, technical analysis, and contextual interpretation.

Does your organization have a strategy to measure and manage the increasingly complex network relationships among your professionals, managers, and executives? Further, does your organization understand the network relationships both within and across organizational boundaries?