Re: The Network Community

How best to define a community? On the outside looking in, it is perhaps easiest to segment people spatially. Most people are familiar with the phrase “that’s a good/bad neighborhood”. But is it a good (or bad) community? More specifically, is a neighborhood an adequate approximation of a community?

Chicago has many traditional neighborhoods: the Pilsen neighborhood, Greektown, Wrigleyville, the renowned Loop, etc. Similar to the Little Italy of Toronto, the makeup of the Pilsen neighborhood has evolved from Czech to German to Polish and Irish immigrants. An outsider would be tempted to infer that the common background of residents in many of these neighborhoods instills a sense of community. But the availability of a specific type of food or the ubiquity of an architecture does not in itself define community. Although it may seem whimsical, envision these neighborhoods as the different sections of Epcot. Some specialized knowledge is useful for those who work in each section. Be that as it may, a staff member at the stave church might hit the bars with someone working in Mission: SPACE. A drinking buddy is surely more a community member than a rarely spoken to colleague.

Nostalgia is derived from one of the cognitive biases we have as humans. Specifically, this bias is referred to as rosy retrospection. The idea behind this is that current events are much more salient, and comparing unpleasant specificities to past vagaries tends to favor the past. Tönnies exhibits this bias when he attempts to frame societies as either contractually or communally organized. This view is much too narrow to be credible, as it implies that communities must be physically bounded to be legitimate. Science fiction feeds on this idea, predicting a future of impersonal individuality. This plays upon another puritanesque fallacy – the idea that people are inherently evil and as such need rigidly structured lives. As wittily observed in the movie Chocolat, change in the form of external connections invigorates life rather than inspiring hedonism. Here, the author makes an important point. While limited mobility may have encouraged local communities in the past, it is no longer an obstacle in today’s world. The advent of long-distance communication technologies relegates small insular communities to a mere portion of a community.

Given these advances in social technology, a community is most usefully depicted as a network. Such a network is necessarily ego-centered, or structured around a single person. That an individual uses remote connections to enhance local standing, and local standing to gain external support lends further credibility to this model. Thinking in terms of a network also invites discussion of the strong/weak tie dichotomy. Traditionally, communities are pictured as close-knit, with relatively uniform support offered reciprocally. Yet expecting emotional support from a sports buddy or advice on technique from a sibling seems absurd. Surely, though, both are members of an individual’s community. Imagining a weak tie to a teammate and a strong tie to a family member eases this dilemma.

Indeed, it is significantly more useful to think of community in terms of a system of resource exchange. While social 'goods' may be intangible, they are not without inherent value. Drawing on Adam Smith's concept of specialization, it is easy to imagine that some people are more adept at providing certain types of support than others. A three-legged stool may define a plane, but without the third leg there's still a bit of balancing to do. By their nature, on-line ties will be specialized and weak. This makes sense, as the cost of forming a tie (finding the person and initiating communication) is very low due to the nature of the medium. The use of networking sites like LinkedIn and AlwaysIllinois reflects this; users will
amass a large number of contacts that they probably do not know very well. A large number of contacts greatly increases one's prospects w.r.t. getting a job.

People still smile when they pass each other, albeit with emoticons in virtual alleys and by leaving graffiti on virtual walls.

<Dan Gilbert on happiness>

Re: The Strength of Weak Ties

Aside from the endearing qualities of loosely-woven neck garments, there is much to be said for the utility of infrequently used assets. It is true that a tightly-bound clan structure is helpful in maintaining stability. Any student of history, however, would agree than many advances have come from an injection of new blood, so to speak. Surely this must have prompted the arranged marriages of nobility that were relatively commonplace. In essence, the ‘married away’ child serves as a bridge between the two families. The intent is for the weak link formed by the marriage of the recently introduced pair to become strong over time. Until that happens (if indeed it does), all of the resources of each kingdom are immediately more accessible to the other. I propose that, recursively applied, this transition from weak to strong is how a network grows.

Take, for example, Darius’ strategy to extend the Persian Empire. He did not attempt to conquer every city-state that opposed him. Instead, he simply demanded submission. Here I reason that a conquered state is tied strongly to its conqueror, whereas a state that merely submits is tied more weakly. Although lacking complete control, Darius still received valuable resources from these city-states; namely a tax. Notice, however, that his strategy does not end here. Persian officials were encouraged to intermarry and even adopt the local religion. [W] In this manner, the initially weak ties of submission became the stronger ties of kinship over time. The application of weak and strong ties to the customs of nobility also offers an example of the downside to strictly strong ties. Nature, it seems, vouches for the expansion of networks in the manner described. Continued intermarriage over time within these same small community leads to physical deformities. Genetically, we benefit from finding someone new.

Losing contacts we are weakly tied to is, as noted by Granovetter, is quite significant in itself. These ties are likely to be bridges to other communities, local if not absolute. Severing such a tie cuts the ego off from (facilitated access to) all of the resources that community has to offer.

While the author argues that severing a strong tie is much less significant for this reason, this advice should be taken with a grain of salt. Recall the composition of a strong tie: large amounts of time, emotional intensity, intimacy and reciprocality. It may be that the loss of one such contact may not exclude the ego from the resources of the shared community. The loss of any resource, however, must be weighted by its direct value as well as its indirect. Attempting to compare the loss of a close friend and confidant to that of the resources of a community is a fruitless endeavor.

That loosely knit networks encourage innovation is no surprise. Contacts with less invested in a relationship with the ego are more likely to take a chance that may end that relationship. Think of a closely knit network of strong ties as a castle; it is difficult to breach, yet the drawbridge must be lowered for anyone to get out. When the actions of one individual have a substantial effect on the group, decisions tend to be risk-adverse. That is, don’t let the drawbridge down to take out the trash during a siege. Even if the stench will overcome the defenders before the Helepolis.
Re: Visualizing Social Networks

Measurement may be one of the most significant factors contributing to the development of modern science. This is logical; without measurement, repetition of experiments cannot be precise and results cannot be usefully compared. While numbers make the world go round, the meaning they impart is crucial. What does it mean for a measurement to be similar to the previous yet different from the next?

Visualization of data gives it context and in doing so a sense of perspective. Knowing that the depth of a pool is 4’ in a particular location does not help the unfortunate six-footer when he dives in. A mark along the side of the pool, or perhaps an image of an average-sized person with its head above the 4’ mark could save a life.

Visualizing a network using points and lines is useful because it is natural. Picture a spider’s web; the spider must traverse cords to move from point to point. Each point in a social network is connected directly at first by local ties, then by the ties of the first and so on. Just making use of points and lines, however, implies a uniformity that may or may not exist.

In order to remedy this, some variation on the attributes of points and lines is necessary. In the food web example, the size of the tertiary consumer hints at its significance in the overall scheme.

Allowing for different types of points helps to bring out categorical variables. In the girl/boy face example, differing size would be inappropriate as it would suggest varying importance. Changing line properties is another avenue open to exploration; perhaps this in addition would amount to information overload.

Spatial positioning of points overshadows all other considerations in its importance. Content is of considerably less use without structure. A closed door implies privacy, while merely an open frame offers uncertainty. See an octagon and expect to stop. The use of redundancy in the food web diagram is excellent; not only do components vary in size, but their vertical orientation also confers some degree of significance.

The form in which information is presented allows the audience to use prior knowledge of norms. The map of the Russian river trade routes draws upon familiarity with geography. The observer correctly concludes that the central hamlet is the most significant: ‘all rivers lead to Moscow’. The target sociogram is another example of the utility of form. Having experienced such shapes in the past, a viewer might assume that points in the center are more important. This transfer of available knowledge to new situations is brilliant.

Three dimensional diagrams seem like a logical direction to follow. Humans are at home in three dimensions; we are capable of quickly gathering and parsing information in this format. Yet one look at Figure 21 reveals an obvious problem that stands in the way of meaningful progress. A two dimension representation of three dimensional data is not natural. It is not nearly as useful as the ‘real thing’ and may in fact hinder processing of data. The relative obscurity of VRML today supports this notion - interpreting simulated 3D imposes an additional load. Perhaps this may be addressed by holograms in the future, or some sort of augmented reality. Until then, the holodeck and networks will remain imagined best in 2D.