

**Infotopia**  
**How many minds produce knowledge?**  
By Cass Sunstein  
Oxford University Press, 2006

**Knowledge Engineering's Next Paradigm – Information Aggregation Tools for Internet World – Wikis, Prediction Markets, and Blogs**

The new tools of internet age and delivery mechanisms:

Cass Sunstein brings out a timely synthesis of **tools** such as wikis, prediction markets, and blogs (broadly identified here after, info outlets), at a time internet is pushing out information revolution,

- a revolution that provides access to and distribution capabilities of information to billions of people around the globe with out much cost,
- a revolution that provides access to a voting system with out much preparatory work and with high participation rates for those who have access to the technology,
- a revolution that eliminates the price differentials a in fraction of a second on all products and services that is purely a function of information and knowledge attributes.

Price differentials due to information differentials are eliminated instantaneously. What is remaining is the pure product value differentials and associated customer service. People bid on pure product value differentials and product service differentials very easily.

He brings out scores of examples on how these tools are used by companies, organizations, and governments in solving when a product will be successful, identifying evolving terrorism threats, predicting weather patterns, survival of patients, and predicting futures market. He brings out statistical aggregation and their errors and how to avoid them for various special situations, in terms of aggregation of experts opinion and how such experts opinion might themselves become error prone.

While broadly speaking internet is the delivery mechanism for all these tools, the delivery model itself has become a model of cooperative market on it own merit. One of the key conduits in using a variation of such info outlets, namely open source system, has become a model of delivery mechanism for cooperative markets, which is becoming successful due to access to democratic nature of information access and information distribution. Open source system uses internet for collaborative markets where markets are not purely defined by money, according to Cass Sunstein, though one may interpret that the marginal cost of incremental innovations by those who did not have access to information earlier is so low that it looks like they are contributing purely for pride and fun. Remember in a pure market signaling system, pride and fun also should have a price. This is a digression from what Cass is trying to bring out to the readers and we will address this separately in a different article.

The challenge:

He provides a framework why and how these **tools** are used by corporations, government organizations, and even emerging thought leaders to simple individuals who might be coming from any unknown place in the globe. Yet the key difficulty is how to aggregate the information regarding votes, bids, and evaluations from these exponentially growing internet members and their own sites that aggregates these exploding information outlets, vents, and analets (analysis lets, supposedly giving analysis based conclusions in their sites, which makes it difficult in discriminating between pure knowledgebase sites vs. vested knowledgebase sites), that would eliminate errors in aggregation while pursuing knowledge out of these aggregation.

#### Utilizing market system:

The best way to tap into these resources to avoid errors (which can become catastrophic) in aggregation (interestingly he does not use the phrase *synthesis*) of information into knowledge is to bring in “market pricing system”, the single most effective signal that captures the value of information, eliminates errors, and more effectively guides constantly the users of the knowledge out of these geisers of information vents whether they are “old faithful” or “new evolving ones”. By market pricing system, basically he is talking about a market driven incentive system. He also brings out how companies are using innovative customer (user) evaluation metrics to better tease out the errors in the user inputs (eBay evaluation metrics, ...)

In essence, his point is to use market pricing system and innovative customer evaluation systems for aggregating information into knowledge from the wikis, prediction markets, and blogs under open source system or under purely market driven system.

#### What is its implication for our interests, *specific* to our current projects?

We shall create “Palliative care wiki”, “Palliative care prediction markets driven by experts”, “palliative care blogs” with a clear understanding of what is a good incentive system so that these systems can organically grow for better utilization of resources and outcomes which in turn could be used for the benefit of patients. The more these tools are integrated the better the results are. We can benefit from innovative customer (patients, physicians, families or surrogates) evaluation metrics to benefit from info outlets and from knowledge aggregation.

The specifics of such implementation will involve a lot of thought processes and listening to the participants (physicians, nurses, social workers, patients, and surrogates) and also an evaluation of the current tools and an analysis of what is succeeding and what is failing with the current sites or organizations that use such tools.

It looks like the opportunity is still open for us to leverage these tools.