Axiom 1

Recommended Citation

"Axiom 1", Global Problem Solving, December 10, 1999, https://nautilus.org/global-proble--solving/axiom-1/

Axiom 1 - Metcalf's Law

If there are n people in a network, and the value of the network to each of them is proportional to the number of other users, then the total value of the network (to all users) is proportional to n X (n-1) = n^2 - n (Shapiro and Varian, 184).

Member aggregation is more important than the type or amount of resources owned (Hagel and Armstrong, 14).

feedback:

Metcalf's Law which boils down to N-squared for big numbers suggests that a) we should aim to capture at least a significant fraction of all the influential players in an issue area, and that aggregating them will make our site the reference site that then gains unstoppable momentum; b) that the value participants or recipients gain from our information services will increase simply by virtue of their knowledge that everyone else that they regard as important are reading it--which poses the question: how do we determine, demonstrate, and communicate that fact; and c) the growth potential in asking registrants to introduce us to other likely users is a way to kickstart the initial growth spurt in an issue area where we are setting up a service.

Peter Hayes
peter@nautilus.org
24 Mar 99 23:15:28

In policy-oriented networks, N2 underestimates the value of network growth. In economic terms, N2's value is driven by the exponential increase in potential network interaction with each additional member. In policy networks, value is added not only in terms of N2 interactions, but also by the potential qualitative gains in the currency of the network: intellectual capital.

For example, network communities have a unique ability to capture the multitude of diverse inputs from members to create, share, and advance knowledge. Best described in biological terms, these "knowledge ecologies," maximize knowledge utility as they collectively develop, share, and spread codified and tacit knowledge within and between communities.
