- The Nobel prize-winning economist **Herbert Simon**: "A wealth of information creates a poverty of attention."
- Democracies forbid propertizing the right to control government.
- In 1972, **Robert Fano**, then a researcher at MIT, published a dark and pressing essay titled **"On the Social Role of Computer Communications."** Fano's fear was that access to computing resources would be increasingly centralized, and that this centralization would do a great damage to Democracy. As the power to understand and manipulate data about the world was held by a smaller and smaller number of people, the skew to Democracy caused by this concentration would only increase. What was needed, Fano argued, was a different architecture for computer communications, one not centralized within a small number of organizations, but instead made available generally to many.
- Power, not reason, is the currency of deliberative Democracy.
- Politics is implemented through technology.
- Behavior in an online community could be regulated by:
    - Law
    - Norms
    - Market
    - Architecture, i.e. code.
- Bridging social capital refers to social networks that bring together people of different sorts, and bonding social capital brings together people of a similar sort. This is an important distinction because the externalities of groups that are bridging are likely to be positive, while networks that are bonding (limited within particular social niches) are at greater risk of producing externalities that are negative.
- And as **Mary Ann Glynn** put it in her seminal article on organizational intelligence (Academy of Management Review 21 [1996]): "[Network] intelligence is an [NGO's] capacity

Comment: Information overdose.

Comment: Propertizing control mechanisms.

Comment: What regulates online behavior in online communities.

Comment: Bridging and Bonding social capital through online communities.

to process, interpret, encode, manipulate, and access information in a purposeful, goal-directed manner, so it can increase its adaptive potential in the environment in which it operates."

- Using patterns of search and interact, an NGO's intelligent network processes can link social structures (who knows who) and knowledge networks (who knows what). Thus, through the network intelligence of an NGO we could get from social structures and knowledge networks to cognitive social structures and cognitive knowledge networks (who knows whom and what).

Comment: Social networks and Knowledge networks in online communities.

- **Howard Gardner**, the influential professor of Cognition and Education at Harvard Graduate School of Education puts it succinctly: "My intelligence does not stop at my skin. Rather, it encompasses his tools, such as his computer and its databases, and just as important, my network of associates—office mates, professional colleagues, others whom I can phone or whom I can dispatch electronic messages."

Comment: The tools of intelligence.

- Outstanding community performance raises what behavioral and cognitive scientists **Wendy M. Williams** and **Robert J. Sternberg** identified as "group IQ"—the functional intelligence of a group of people working as a unit.

Comment: Group IQ.

- One may list NGO stakeholders' needs for online interaction and community-building in four basic categories:
  - Communities of transaction
  - Communities of interest
  - Communities of politics
  - Communities of relationship

Comment: Categories of online interaction in online communities.

- Online communities extend a long tradition of communities forming around documents, which the sociologist **Anselm Strauss** described as "social worlds" in his work titled **"The Social World Perspective" (1978)**. One of the most influential local groups in Europe that was created thanks to the social glue of shared scientific documents is the British "Royal

Comment: Social worlds.

Society". It included personalities such as Isaac Newton, Robert Boyle, and Robert Hooke.

- The historian **Brian Stock** has shown how from the 11th century on, the spread of written word and literacy together allowed "textual communities" that were "important laboratories of social organization." In his work titled **"The Implications of Literacy: Written Language and Models of Interpretation in the Eleventh and Twelve Centuries" (Princeton University Press, 1983)**, Brian Stock proves that shared documents contribute not only to forming and stabilizing the worlds but also to reform, destabilizing, and transform them.
- The French sociologist **Alexis de Tocqueville** who wrote in 1835, "Nothing but a newspaper can drop the same thought into a thousand minds at the same moment… [Newspapers] maintain civilization. If there were no newspapers, there would be no common activity."
- To a great extent, technology's progress can be anticipated because of laws such as **Moore's Law**, **Metcalfe's Law**, and **Gilder's Law**. Almost forty years after **Gordon Moore**, the co-founder of Intel, observed that the number of transistors on a chip doubles every eighteen to twenty-four months. We can think of online communities wherein we can add audio and video features to products and services directly related to the online communities, add intelligence and embedded help services to products and services, and interconnect smart devices. **Bob Metcalfe**, the co-founder of 3Com, observed that the value of the network increases by the square of the number of its users. Today, and because of Metcalfe's law we can think of online communities wherein citizens and services are interconnected. Connecting people builds value, whether it is social, political, technological, or economical. The economist **George Gilder** observed that the bandwidth of communications is growing faster than computing power by

Comment: Textual communities.

Comment: Moore's Law, Metcalfe's Law and Gilder's Law.

doubling every year, and it will continue to do so for the next twenty-five years. For the online community member bandwidth means the capability for immediate access to information or dynamic content measured in bits per second. With more bandwidth, devices can deliver greater emotional and intellectual communication.

- The result of participating in online communities could be expected to reinforce likeminded beliefs, similar interests, and therefore *ideological* homogeneity among members.
- Social psychologists suggest that this anonymity could be most important for marginalized populations who are otherwise isolated from cultural interactions outside of their group, such as single mothers working at home, gay men, or rural poor populations.
- Pure bonding groups are most likely to occur online where social and ideological homogeneity overlaps, deepening networks among people sharing similar backgrounds and beliefs. In contrast, where the Internet draws together those from diverse social backgrounds and beliefs, widening contacts, the typology suggests that this generates pure bridging groups.
- In general the Internet serves two functions, although the strength of this effect varies in important ways by the type of online group. Participation in online communities *widens* participants' experience of community (by helping them to connect to others with different beliefs or backgrounds), and *deepens* their experience (by reinforcing and strengthening existing social networks).
- It is hoped that online communities could perhaps help to overcome traditional divisions among territorial communities. Online participation has the capacity to deepen linkages among those sharing similar beliefs as well as to serving as a virtual community that cuts across at least some traditional social divisions.

Comment: Ideological homogeneity.

Comment: Marginalized populations.

Comment: Widens and Deepens experience.