

Networks viewed as key elements in human cognition

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Abstract:

1. Social networks evolved primarily as cognitive entities, that is, as distributed cognitive systems.
2. Entities such as corporations and governments are really social networks that perform cognitive work in groups (for example, perceiving, planning, deciding, acting, remembering, storing representations, and constructing culture).
3. Social networks had a deep formative impact on the human mind over several million years, to the degree that the minds and brains of children develop their higher cognitive powers only in symbiosis with them (in social isolation, higher capacities, including language, will never develop).
4. Language and symbolic thought thus evolved at the network level; during development the brain receives feedback from the social network, which effectively “rewires” the nervous system as it unfolds, creating essentially unpredictable functional architectures in the brains of individuals, depending on when and where they were born.
5. This co-evolutionary process proceeded in several stages, all of which are retained in the complex structure of modern mind and its various cultures.
6. The term “cognitive governance” can be applied to the institutional regulation of the flow of ideas and representations in human society.
7. Communications technology has had a profound effect on the cognitive governance structure within which our brains develop.
8. There are tensions inherent in our evolving cultural-cognitive governance structure, some of which are potentially destructive, and relevant to the sustainability of rapid technological and social change. Ideally, these should be taken into account in our long-term planning (such as it is).

Basic reference: Merlin Donald, Origins of the Modern Mind: Three stages in the evolution of culture and cognition (Harvard University Press, 1991)