

On the Structure of Nimble or Resilient Organizations: a Proposal

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In this note the authors present a view of large organizations such as a government as a data network or a communication network with a well-defined capacity. We propose to treat a nation along the lines of a neural network as well and discuss the parameters that quantify the strength of a nation. Strong, adaptive nation states are characterizable as resilient organizations. Next we view nations as problem solving machines, extending the analogy with artificial neural networks further. We leave the reader with a question: what problem is solved by a nation?

The key motivation in this study is the comparison of organizations with neural networks. The comparison is primarily aimed at human organizations, such as militaries. However, the comparison can also be extended to animal organizations such as a school of fish or an ant colony. Just as a neural network takes in data, and learns its features over time, an organization is always found in an ecosystem or environment in which it functions or operates. Efficient organizations must function just like learning machines in order to be nimble and adaptive to changes taking place around them all the time.

This idea has applications in improving national security, optimizing the architecture of big companies, as well as in understanding survival of groups of organisms in biology. Future research work will elaborate on each of these application areas.