

Ethno-Sociology (2007)
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Abstracts and supplementary: <http://eclectic.ss.uci.edu/~drwhite/links2pdf.htm>
Practicum <http://eclectic.ss.uci.edu/~drwhite/pub/Ethno-Sociology-Practicum.pdf>

George Marshall (1947) spoke of the enormous complexity facing the postwar era that made it “exceedingly difficult for the man in the street to reach a clear appraisal of the situation.” Bill Gates, echoing Marshall in a Harvard address (2007) sixty years later, “thought about how a host of technological” advances have helped erase those complexities.” “The internet for instance, allows the best minds in an area to work together on common problems in ways they couldn’t do before” (WSJ 6-8-07).

Gates, however, has it wrong. Selection of the best minds in an area to work with common technology to solve problems has not made complexity more comprehensible, and the problems created are often worse than those solved. What Gates does not understand is that it is diverse minds working at different scales and different speeds on different platforms that need to be understood and nurtured, through understanding and nurturing of layer-embedded networks, which are not a reduction of complexity to simplicity but a much more profound and realistic appraisal of the human situation in all its manifest conditions and historicities.

-- Doug White

COMPARATIVE: interdependence, autocorrelation, regionality, complex temporal interaction

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MATHEMATICAL FOUNDATIONS: process, optimization, structural contingency, decomposing roles and groups

1974 Mathematical Anthropology. In J. J. Honigmann, ed., *Handbook of Social and Cultural Anthropology*, pp 369-446. <http://eclectic.ss.uci.edu/~drwhite/pub/MathAnth74-1.pdf>

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WORLD TRADING NETWORKS: regular role equivalence, network theory of mobility, flow centrality, truly generalized blockmodeling

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DYNAMICAL COMPLEXITY: HISTORICAL, ETHNOGRAPHIC, AND URBAN

I am interested in a layer-embedded networks (LEN) approach to emergence and complexity. Unlike discovery of simple interactive principles that generate complex emergent behavior (e.g., agent-based modeling, self-organized criticality), networks of interaction in the multi-layer approach occur between elements with internal processing and time-delayed responses, such as humans with biosocial and cogni-cultural reactivities. In several of these studies, response times are at generational time-scales. LEN models allow multiple levels of embedding, with some interactions occurring at faster time scales and others that affect them occurring at successively slower scales. The principles here may be simple, but how these levels interact requires a very delicate and new understanding of layering and feedback.

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