

Calling notices and announcements

All news items, newsletters, event calling notices, etc. are now available at the ISCE-P Forum at:

<http://iscepublishing.com/Forum/default.aspx?g=topics&f=5>

Please check in regularly to learn about upcoming events, and perhaps contribute to some of the discussions / debates.

ABOUT E:CO

Emergence: Complexity & Organization (E:CO) is an international and interdisciplinary conversation about human organizations as complex systems and the implications of complexity science for those organizations. With a unique format blending the integrity of academic inquiry and the impact of business practice, *E:CO* integrates multiple perspectives in management theory, research, practice and education. *E:CO* is a quarterly journal published in print and online by The Complexity Society, the Institute for the Study of Coherence and Emergence, Cognitive Edge, and ISCE Publishing in accordance with academic publishing standards and processes.

INTELLECTUAL ECOLOGY

E:CO's niche is the opportunity to bridge three gaps:

- The distance between academic theory and professional practice;
- The space between the mathematics and the metaphors of complexity thinking; and,
- The disparity between formal idealizations and actual human organizations.

Organizations of all kinds struggle to understand, adapt, respond and manipulate changing conditions in their internal and external environments. Approaches based on the causal, linear logic of mechanistic sciences and engineering continue to play an important role, given people's ability to create order. But such approaches are valid only within carefully circumscribed boundaries. They become counterproductive when the same organizations display the highly reflexive, context-dependent, dynamic nature of systems in which agents learn and adapt and new patterns emerge. The rapidly expanding discussion about complex systems offers important contributions to the integration of diverse perspectives and ultimately new insights into organizational effectiveness. There is increasing interest in complexity in mainstream business education, as well as in specialist business disciplines such as knowledge management. Real world systems can't be completely designed, controlled, understood or predicted, even by the so-called sciences of complexity, but they can be more effective when understood as complex systems. While many scientific disciplines explore complexity through mathematical models and simulations, *E:CO* explores the emerging understanding of human systems that is informed by this research. Engineered and emergent views of human systems can coexist, creating a useful tension that drives organizational evolution. However, neither academics nor practitioners can leverage complexity alone. Academic discussions about complexity are often biased towards quantitative research and mathematical models that are inappropriately prescriptive for systems comprised of actors endowed with free will, who are simultaneously part of and aware of the system. The metaphors of complexity have a usefulness of their own as well, but too often they are applied without adequate reference to the mechanisms, models and mathematics behind them.

CONTENT IN CONTEXT

Readers of *E:CO* are managers, academics, consultants and others interested in developing and applying the insights of complex systems theories and models to analysis and management of private-, public- and social-sector organizations and applying insights derived from organizational experience to understanding complex systems theories.

E:CO encourages multidisciplinary contributions from all sectors of social and natural sciences and all sectors of organizational practice. The journal's unique format presents both reviewed and non-reviewed content from three overlapping sources. Peer-reviewed articles are at the heart of our content, but with an emphasis on communicating across boundaries. Academic articles pass double-blind reviews by two academics and one practitioner. When subject matter is theoretical or reporting research findings, authors will be encouraged to discuss practical implications of the ideas. Similarly, practitioner articles also will be double-blind reviewed by two practitioners and one academic. When appropriate, authors will be encouraged to connect to theory or research that has either already been done or needs to be done.

Additional non-reviewed content includes feature articles, essays, profiles, conversations and conference summaries, as well as news, commentary, book reviews, etc. Each article will be clearly marked according to which path it took to publication.

E:CO incorporates *Emergence*, originally published by the Institute for the Study of Coherence and Emergence.

SUBMITTING MATERIAL TO E:CO

E:CO is interested in receiving work from a wide range of perspectives:

- Theoretical and practitioner based;
- Both conventional and unconventional methodologies;
- Case study work;
- Approaches to teaching management or leadership;
- Work covering a variety of organizational types, size and ownership;
- Cross cultural studies and work from Australasia, Africa, Central and South America and the Far East as well as the USA and Europe.

We ask that authors set their paper clearly within the context of the notion of complexity and complex systems, however they chose to define such, and that the practical implications and transferable lessons from their work be clearly described.

Note that quantitative studies (including those which focus on survey results and related statistics) are not suitable for *E:CO*. Authors are limited to one mathematical formula per paper (additional formulae may appear in the technical appendix). If you wish to submit work of a quantitative nature, please represent it qualitatively. Figures and tables should be illustrative. Quantitative and statistically based submissions will be returned without review. Each article in *E:CO* will be accompanied by space on the *E:CO* web site for additional materials and discussion forums.

FORMAT

All submissions are electronic.

Suggested length is 4000 to 5000 words. Review pieces and essays should be 2000 to 3000 words. Note: additional material considered relevant and/or related by the author(s) can be posted on the web site, which will be associated with each accepted article. The author(s) will be responsible for securing all necessary permissions for material to be posted on the web site.

All submissions must be in either MS Word (6.0 or later) or Corel WordPerfect (6.0 or later). All manuscripts should be formatted as typed, 11 or 12 pitch, double-spaced (including references) on 8 1/2 by 11 inch white paper with margins of at least one inch on all four sides; or if on A4 paper, with appropriately adjusted margins, as all origination for printing will be done in the USA. Electronic submissions should be sent simultaneously to: Kurt Richardson (Managing Editor), and Caroline Richardson (Administrative Assistant). No hard copies are required for submission.

ORDER OF MATERIAL

Front Matter

First Page: Title of paper, name and position of author(s), author(s)' complete address(es), email contacts, fax and telephone number(s), and any acknowledgement(s) of assistance. Second Page: A brief biographical sketch of each author including name, degree(s) held, title or position, organization or institution, previous publications, and areas of research interest. Third Page: Title of paper without author(s)' name(s) and a brief abstract of no more than 150 words.

Body of Text

The text and page numbering will begin on the fourth page (as page #1), with major headings centered on the page and sub-headings flush with the left margin. All headings and titles should be typed with upper and lower case. Do not use all capitals. Bibliographic citations should be integrated into the text as indicated below. In the extreme case that an explanatory note is needed, it must be formatted as an endnote. All endnotes must be approved by the editor before final submission.

Technical Appendices

Technical appendices may be used to include mathematical or highly technical material which supports the main text but which is not critical to the reader's interpretation of the text. Note that technical appendices will only appear on the Emergence web site and not in print.

Tables and Figures

Each table or figure should be placed on a separate page and numbered consecutively beginning with Table 1 and Figure 1. A table or figure should not be included unless it is referred to in the text of the article. Placement in the text should be indicated as follows:

[Figure 1 about here]

Footnotes in tables or figures should be designated by lower case letters. Each table and figure must have a title and a number. The table or figure number and title should be typed on one line, using upper and lower cases, as follows:

Figure 1 *The interplay of competing frameworks*

Figures also need to be provided as separate files and in their native format, e.g., if a figure was designed using Power Point then please provide the .ppt files and not an exported JPEG. Our typesetters can deal with most file formats. EPS is one of the more popular for publishing purposes.

References

References within the text (incl. notes and appendices) should include the author's last name and year of publication enclosed in parentheses, e.g. (Meddaugh, 1986). If practical, place the citation just before a punctuation mark. If the author's name is used within the text sentence, just place the year of publication in parentheses, e.g., "According to Meddaugh (1986)..." If a particular page or section is cited, it should be placed within the parentheses, e.g., (Meddaugh, 1986: 48). For multiple authors, use up to two names in the citation. With three or more authors, use the first author's name and *et al.* (even on the first appearance within the article), e.g., (Meddaugh, *et al.*, 1989).

An alphabetical listing of references should appear at the end of the manuscript, with each author's surname first and year of publication following all authors' names. Work by the same author with the same publication year should be distinguished by lower case letters after the date (e.g., 1983a). Works by the same author should be listed earliest to latest, and the author's name should appear with each reference (do not use underscores). Examples are as follows:

Crissy, W.J.E. and Kaplan, R.M. (1969). *Salesmanship: The Personal Force in Marketing*, ISBN 0471187550.

Richardson, K.A., Tait, A., Roos, J. and Lissack, M.R. (2005). "The coherent management of complex projects and the potential role of group decision support systems," in K.A. Richardson (ed.), *Managing Organizational Complexity: Philosophy, Theory, and Application*, ISBN 1593113188, pp. 433-458.

Ingram, T.N. and Bellenger, D.N. (1983). "Personal and organizational variables: Their relative effect on reward valences of industrial salespeople," *Journal of Marketing Research*, ISSN 0022-2437, 20(May): 198-205.

Note that all books and journals must have their ISBN and ISSN included, respectively, where known. From issue 9.1 (2007) the town, state and publisher are no longer needed for books for which there is a current ISBN. Only older books (pre-ISBN) require town, state, and publisher.

If you have trouble finding journal ISSNs then try entering the journal's name within inverted commas and "ISSN" into google. For example:

"Journal of Management" ISSN

Failure to format references correctly may create delays in the publication process.

ACCEPTANCE PROCEDURE

The Editors and Managing Editor will review all submissions for suitability. Manuscripts deemed suitable are reviewed independently by members of the editorial review board, and their recommendations guide the Editors in their acceptance decision. The reviews are double blind - neither authors nor reviewers know the identity of each other.

All reviewing for *E:CO* is done electronically. Authors will be updated via email.

Featured Image: Artiodactyla Evolution in Space and Time

Description: Evolution is a spatio-temporal process conditioned by Earth history and the ability of organisms to adapt and diversify. Graphic presentations that integrate evolutionary models with geographical distributions have been central to the deconstruction and explanation of complex patterns of biodiversity (Hewitt, 2001). New technologies however are generating ever more and larger evolutionary reconstructions as well as facilitating the integration of data from other disciplines. New visualization approaches are required to illustrate the emergent patterns when these complex interrelated data sets are combined. Evolution of the Artiodactyla in Space and Time shows the spatio-temporal dynamics of the evolutionary tree of the mammalian order Artiodactyla (even-toed hoofed mammals) since their origin in the Late Cretaceous in what is now Pakistan. The network presented is based on 174 living terrestrial species with well-known native ranges. A 3-dimensional 'geophylogeny' was created with the 'GeoPhyloBuilder' extension for ArcGIS (Kidd & Lui, accepted) from an evolutionary tree (Price et al 2005) and associated species range maps (Sechrest, 2003). In the geophylogeny branch tips represent living species and are positioned at the geographical centroid of the modern range. Internal nodes are then positioned at the geographical centroid of lower branches except for the origin of a number of subgroups, e.g., Suidae, that were positioned manually to correspond with the fossil record. We show the geophylogeny from a variety of different perspectives to facilitate visualization of spatially overlapping patterns of diversification in time, geography and ecology.

Scientific Value: The combination of comprehensive spatial and temporal datasets allows us to visually explore and identify complex evolutionary patterns. We combined species' geographic ranges (Sechrest, 2004) and evolutionary history (Price *et al.*, 2005) with general ecological data (Olson *et al.*, 2001) to elucidate the evolution of the even-toed hoofed mammals (Artiodactyla). To illustrate this we detail the evolution of the pig family (Suidae) in space, time and ecology. According to the fossil record pigs originated in South East Asia, early in the history of the group the peccary progenitor migrates to the Americas, later they diversify within the forested habitats of South America. Concomitant with the South American diversification the old-world pigs (Suinae) disperse to and radiate within African forests and undergo in situ diversification in their ancestral region mainly due to the evolution of island endemics. From this pattern we conclude that present-day pig lineages have remained forest specialists throughout their evolutionary history and have dispersed via land to Africa and South America. The South American dispersal was most likely across the Bering land bridge and down through North America, a hypothesis which is supported by the fossil record as the earliest identifiable peccaries appear in North American deposits.

Educational Value: The educational value stems from combining complex spatial and temporal data and presenting it in an easy to read format. By plotting the tree (temporal) onto the globe with the tips showing the mid-point of the species range (spatial), along with a basic habitat variable (spatial), we enable the students to explore a variety of large-scale ecological and evolutionary patterns. The identification of these patterns then allows the students to posit possible explanations for the patterns involving both the physical (e.g., emergence of the Atlantic Ocean) and the biotic environment (e.g., ecological specialization due to competitive exclusion).

References

- Hewitt, G. M. (2001). Speciation, hybrid zones and phylogeography - or seeing genes in space and time. *Molecular Ecology* 10: 537-549.
- Kidd and Lui (accepted). GEOPHYLOBUILDER 1.0: an ArcGIS extension for creating 'geophylogenies'. *Molecular Ecology Notes*.
- Olson, D. M., E. Dinerstein, et al. (2001). Terrestrial Ecoregions of the World: A New Map of Life on Earth. *BioScience* 51: 933-938.
- Price, S.A., Bininda-Emonds, O. R. P. & Gittleman, J. L. (2005). A complete phylogeny of the whales, dolphins and even-toed hoofed mammals (Cetartiodactyla). *Biological Reviews* 80, 445-473.
- Sechrest, W. (2003). Global diversity, endemism and conservation of mammals. PhD Thesis. Department of Biology, University of Virginia.

Contributed by David M. Kidd & Samantha A. Price.

For a downloadable version visit: http://research.duke.edu/wp-content/uploads/artiodactyl_evolution.pdf.

If you have an image—which may be a photograph, complex computer generated image, or some interesting data—that you'd like to have published in full color on a future issue of *E:CO* then please send it along to featured_image@emergence.org along with a paragraph or two describing what the image depicts and how it was created.