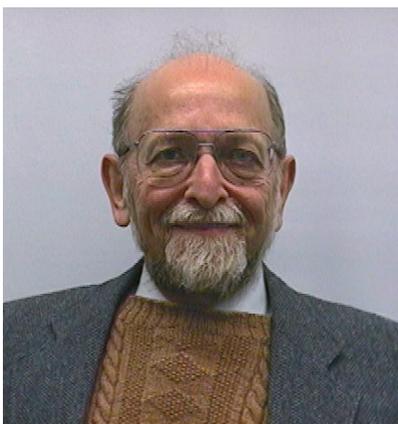Rare reference materials (see long version) will be made available to enrolled students.
Short advertisement.
Many of the ideas that surface as "new" in today's super-heated research environment have very firm roots in earlier developments in fields as diverse as citation analysis and pattern recognition. The purpose of this tutorial is to survey those roots, and their relation to the contemporary fruits on the tree of information retrieval, and to separate, as much as is possible in an era of increasing secrecy about methods, the problems to be solved, the algorithms for solving them, and the heuristics that are the bread and butter of a working operation.

Short CV.
Paul Kantor (http://comminfo.rutgers.edu/~cgal/Final_CV_v2.htm) is Distinguished Professor of Information Science at Rutgers and a founding editor of the journal Information Retrieval. He serves as Research Director of the CCICADA Center for Advanced Data Analysis Paul has worked on information retrieval and evaluating information systems since 1972. He is a Fellow of the American Association for the Advancement of Science, a Senior Life Member of the IEEE and a member of the American Statistical Association, ASIST and the ACM. He is co-Editor of the Springer Recommender Systems Handbook first edition. His research has been supported by NSF, ARDA, DARPA, DHS, ONR, and other organizations. At Rutgers he is also a member of DIMACS Center for Discrete Mathematics and Computer Sciences; and on the graduate faculties of Computer Science and Operations Research. His hobbies include flying, and he promises tutorial participants a smooth take-off and a safe landing.

Detailed Description of Content and User Group
AUDIENCE. This tutorial is intended people who are entering IR from any of the several related fields, have the equivalent of a bachelor's degree in computer science or computer engineering. For many in the intended audience their equivalency will be the substantial amounts of learning on the job

TOPICS: (1) The earliest origins: Kent and ACS; Cranford; (2) Vectors and Logarithms – Salton; the Roots; (3) Probabilistic Approaches – a Frequentist View; (4) The Quest for Theoretical Foundations; (5) Generative Approaches; (5) Network Approaches – Pinski and Narin; (6) Syntheses and combinations of methods. (7) Wild Speculations. We will mention and discuss some of the early papers by Luhn and Good, which laid out fundamental ideas behind many of today's algorithms. We will close with some speculations on relations between Information Retrieval and deeper issues involving brain function.