

- H. Polachek, "Solution of the Differential Equations of Motion of a Projectile in a Medium of Quasi-Newtonian Resistance," *Quarterly of Applied Mathematics*, vol. 7, no. 3, 1949, pp. 275-291.
- H. Polachek and R.J. Seeger, "On Shock-Wave Phenomena: Interaction of Shock Waves in Gases," *Proc. Symposia in Applied Mathematics*, vol. 1, Am. Mathematical Soc., 1949, pp. 119-144.

### References and notes

- 1.H. Polachek, "Before the ENIAC," *IEEE Annals of the History of Computing*, vol. 19 no. 2, 1995, pp. 35-30.
- 2.H. Polachek, "History of the *Journal Mathematical Tables and Other Aids to Computation*, 1959—1965," *IEEE Annals of the History of Computing*, vol. 17, no. 3, 1995, pp. 67-74.
- 3.T.S. Walton and H. Polachek, "Calculation of Transient Motion Submerged Cables," *Mathematics of Computation*, vol. 14, no. 69, 1960, pp. 27-46.
- 4.H. Polachek, "Einstein and Religion," *J. Washington Academy of Science*, vol. 69, no. 3, 1979, pp. 95-100.

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### Rob Kling



Courtesy Indiana University School of Library and Information Science.

Rob Kling was born August 1944 and died 15 May 2003. He was one of the foremost authorities in the US on the social aspects of information technology. His more than 85 scholarly articles and book chapters addressed issues from computer reasoning through computer-related public policy issues to the influence of computers on office work and the ideological aspects of computerization. His coedited books included a collection on post-suburban California and another on high technology in local government. At the time of his death, he was working primarily on issues around electronic scholarly publishing and digital libraries.

### Significant work

Kling began his academic career as a student of artificial intelligence at Stanford University. His PhD dissertation—supervised by Edward Feigenbaum—examined the use of reasoning by analogy in problem solving. While his first appointment after graduation was in the Department of Computer Science at the University of Wisconsin-Madison, he soon moved to the University of California, Irvine. His interests shifted toward the role of computers in society and their relationship to public policy. Working with Ken Kraemer, director of the Public Policy Research Organization, and other colleagues he helped develop a major National Science Foundation (NSF)-funded project to study computer use in city governments. In 1989, the Public Policy Research Organization was dissolved and replaced by the Center for Research on Information Technology and Organizations, of which Kling was a guiding spirit.

After more than two decades at Irvine, Kling moved to the School of Library and Information Science at Indiana University, Bloomington, in 1996. At this point, Blaise Cronin was reshaping the school to increase the quality of its research and broaden its focus beyond traditional library education through the creation of an information science program. Looking back on his achievements as Dean, Cronin singled out the recruitment of Kling, writing that to "have him come to SLIS had a very significant, legitimating effect, not just on the school, but on the discipline."<sup>1</sup> More recently, he remembered Kling as "quite simply the brightest bloke with whom I have had the pleasure of working. Infectiously curious, playfully serious, razor sharp, generous of spirit, and wonderfully open-minded."<sup>2</sup>

One of Kling's most important ideas was the idea of *computerization movements* within specific organizations and within society as a whole. He drew attention to the ideological aspects of computerization, in the sense that enthusiasts have often driven the adoption of computer technology because they associate it with efficiency and progress. This insight challenged researchers to account for computerization as an inherently social and value-laden process and one deeply entangled with local contexts, rather than as an inevitable and rational process for society as a whole. For the next few decades, he drove the message home with case studies in many different kinds of organization. His concern was always that the rhetoric of computerization and technological utopianism concealed a reality

in which computerization would reinforce the dominant power of ruling elites, further stratifying society. His interest in the social process of computerization was thus based on the idea that an examination of the values and social choices bound up in information technologies was a crucial step toward a more humanistic and democratic approach to technological change.

Many prior to Kling had published imaginative critiques and investigations of various aspects of computerization, including such figures as Joseph Weizenbaum, Robert Boguslaw, Gerald Weinberg, Ira Hoos, Russel L. Ackoff, and Henry Mintzberg.<sup>3</sup> Neither were many of the issues Kling explored entirely new. During the 1970s, many prominent computer specialists worried about the need to protect privacy, regulate databases, and deal with the potential social problems caused by automation. Most notably, Edmund Callis Berkeley, author of *Giant Brains* (John Wiley and Sons, 1949)—the first popular description of the computer—and a founder of the ACM, devoted much of his career to the topic (including the almost single handed production of a long-running journal, *Computers and People*). While Berkeley was ultimately a loner, Kling worked through extensive networks of collaboration.

Unlike many of those who explored this field before him, Kling will not be remembered for a single classic work that became fashionable reading for a broad audience. His contribution was of a different kind: that of the institution builder. Kling worked harder and longer than anyone to establish a solid, interdisciplinary academic platform for the social study of information technology. He labored for decades to persuade computer scientists that this was a true field of study rather than a hobby for emeritus professors and to convince sociologists and management specialists that computerization was an important topic of study in its own right.

As Kling made clear in the subtitle of one of his early papers, the challenge was to move study of social issues in computing from “arena to discipline.”<sup>4</sup> Kling also felt that these issues should be an integral part of the professional concern of computer scientists and students. Having begun his own career within computer science, he attempted to broaden the disciplinary boundaries of computer science to include social and organizational issues. In 1973, he created a new doctoral concentration within the School of Information and Computer Science at UC Irvine to study computer system usage. Originally called Computers, Organizations,

Policy, and Society, it is known today as Interactive and Collaborative Technologies.

From 1976 to 1984 he chaired a working group of the International Federation of Information Processing (IFIP) on the social accountability of computing and was also a long-time member of the ACM Committee on Computers and Public Policy. From 1995 until his death, he was editor in chief of *The Information Society*.

From the mid-1990s onward, Kling promoted the term *social informatics* as an interdisciplinary identity to unite researchers working on socially and institutionally oriented topics in existing subfields such as information systems, ethics, and human-computer interaction. Kling worked with colleagues at Indiana, and from other institutions, to define and promote the social informatics concept. This work included the creation of an interdisciplinary Center for Social Informatics in 1996, and the creation of an NSF-sponsored report, *Learning from Social Informatics: Information and Communication Technologies in Human Contexts*.<sup>5</sup> Kling also edited two editions of *Computerization and Controversy* (Academic Press, 1991 and 1996), designed to stimulate teaching in this area.

In recent years, the social informatics field began to achieve a little of the institutional solidity Kling sought. The topic remains marginal to the point of invisibility within the US computer science curriculum. However, a new cohort of information systems programs within reinvented library schools, complemented by newly formed schools of informatics in a handful of universities, have started including social informatics (or its subfield of organizational informatics) as a core area of study alongside medical and chemical informatics and other such hybrid subjects.

Kling's colleagues have created a Web site, <http://www.slis.indiana.edu/klingremembered>, filled with tributes from around the world. These speak of his “amazingly extensive social network,” his intellectual energy and single-minded love of debate, his generosity as a mentor, and his enormously wide range of knowledge. A tree is being planted in his honor by Indiana University's student chapter of the ACM, and a memorial event is planned for October 2003. Kling's family created the Rob Kling Social Informatics Scholarship Fund in his memory, with SLIS providing matching funds. To donate, checks should be payable to the IU Foundation and the name of the fund should be included on the memo line. They should be sent to: IU Foundation, PO Box 500, Bloomington, IN 47402.

## Background of Rob Kling

**Education:** BS, 1965 and MS, 1967, Columbia University; PhD in computer science, 1971, Stanford University. **Professional experience:** Stanford Research Institute: 1966-1971, research engineer; University of Wisconsin-Madison: 1970-1971, assistant professor, Mathematics Research Center; 1971-1973, assistant professor of computer science; University of California, Irvine: 1973-1983, assistant/associate professor, Department of Information and Computer Science and Public Policy Research Organization; 1983-1996, professor, Department of Information and Computer Science, Graduate School of Management and Center for Research on Information Technology in Organizations; Indiana University-Bloomington: 1996-2003, professor of information science and information systems, School of Library and Information Science. Visiting appointments at Copenhagen School of Business and Economics, 1986; Solvay School of Business at the University of Brussels, 1991-1993; Harvard University, Program on Information Resources Policy, 1982; and the Gesellschaft für Mathematik und Datenverarbeitung in Bonn, 1983. **Honors and awards:** Silver Core Award, International Federation of Information Processing Societies, 1983; Service Award, ACM, 1984; honorary doctorate, Free University of Brussels, 1987; Fellow, American Academy for the Advancement of Science, 2001.

### Selected publications

- R. Kling, "The Organizational Context of User-Centered Software Design," *MIS Quarterly*, vol. 1, no. 4, Dec. 1977, pp. 41-52.
- R. Kling, "Computing as Social Action: The Social Dynamics of Computing in Complex Organizations," *Advances in Computers*, vol. 19, Academic Press, 1980, pp. 250-327.
- R. Kling, "Social Analyses of Computing: Theoretical Perspectives in Recent Empirical Research," *Computing Surveys*, vol. 12, no. 1, Mar. 1980, pp. 61-110.
- R. Kling, *Computers and Politics: High Technology in American Local Governments*, Columbia Univ. Press, 1982.
- R. Kling, "The Control of Information Systems Development After Implementation," *Comm. ACM*, vol. 27, no. 12, Dec. 1984, pp. 1218-1226.
- R. Kling, "The Mobilization of Support for Computerization: The Role of Computerization Movements," *Social Problems*, vol. 35, no. 3, June 1988, pp. 226-243.
- R. Kling, "More Information, Better Jobs?: Occupational Stratification and Labor Market Segmentation in the United States' Information Labor Force," *The Information Society* vol. 7, no. 2, 1990, pp. 77-107.
- R. Kling, *Postsuburban California: The Transformation of Postwar Orange County*, M. Poster and S. Olin, eds., Univ. of California Press, 1991.
- R. Kling, *Computerization and Controversy: Value Conflicts and Social Choices*, C. Dunlop and R. Kling, eds., Academic Press, 1991; 2nd ed. as sole editor, 1996.

R. Kling, H. Rosenbaum, and C. Hert, "Social Informatics in Information Science: An Introduction," *J. Assoc. for Information Science*, vol. 49, no. 12, Oct. 1998, pp. 1047-1052.

*Building Online Communities in the Service of Learning*, S. Barab, R. Kling, and J. Gray, eds., Cambridge Univ. Press, 2003.

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## References and notes

1. T. Tew, "Shaping SLIS: Outgoing Dean Blaise Cronin Looks Back," *SLIS Network*, Spring 2003, [http://www.slis.indiana.edu/news/story.php?story\\_id=651](http://www.slis.indiana.edu/news/story.php?story_id=651). Cronin had also determined the reach of Kling's work quantitatively, including it in a comparative study of different researchers. This citation analysis demonstrated that it had been "demonstrably influential in the fields of management, computer science, public administration, and sociology, to name but a few." See B. Cronin and D. Shaw, "Identity-Creators and Image-Makers: Using Citation Analysis and Thick Description to Put Authors in Their Place," *Scientometrics*, vol. 54, no.1, 2002, pp. 31-49.
2. See <http://www.slis.indiana.edu/klingremembered>.
3. I.R. Hoos, *Systems Analysis in Public Policy; A Critique*, Univ. of California Press, 1972; G.M. Weinberg, *The Psychology of Computer Programming*, Van Nostrand Reinhold, 1971; R. Boguslaw, *The New Utopians, A Study of System Design and Social Change*, Prentice-Hall, 1965; H. Mintzberg, *Impediments to the Use of Management Information: A Study Carried Out on Behalf of the National Association of Accountants, New York, NY and the Society of Industrial Accountants of Canada, Hamilton, Ontario, Canada*, Nat'l Assoc. Accountants, 1975; and R.L. Ackoff, "Management Misinformation Systems," *Management Science*, vol. 14, no. 4, 1967, pp. B147-156.
4. R. Kling, "Social Issues and Impacts of Computing: From Arena to Discipline," *Proc. 2nd Conf. Computers and Human Choice*, North Holland Publishing, 1980.
5. R. Kling et al., *Learning from Social Informatics: Information and Communication Technologies in Human Contexts*, [http://www.slis.indiana.edu/Sl/Arts/Sl\\_report\\_Aug\\_14.pdf](http://www.slis.indiana.edu/Sl/Arts/Sl_report_Aug_14.pdf).

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