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MAKING *a* DIFFERENCE

MEASURING *the* IMPACT of INFORMATION *on* DEVELOPMENT

Proceedings of a workshop
held in Ottawa, Canada
10 - 12 July 1995



EDITED BY
Paul McConneil

INTERNATIONAL DEVELOPMENT RESEARCH CENTRE

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Measuring the Impact of Information on Development: Related Literature, 1993–1995

Bev Chataway and Atsuko Cooke¹

This list reviews literature since the publication of "Measuring the Impact of Information on Development." Publications before 1993 are well covered in "Measuring..."; they are not included here.

The bibliography is divided into four sections: Section A contains papers and publications directly derived from the International Development Research Centre (IDRC) "impact" project; Section B contains recent writings considered most relevant to the topic; Section C lists related publications of interest. Reviews of the IDRC monograph "Measuring..." are in Section D.

A. Literature Derived from the IDRC Project

Bearman, T.; Griffiths, J.-M.; Menou, M.J. 1993. Toward an assessment of the impact of information on development. Paper presented at the 56th ASIS Annual Meeting, October 1993, Columbus, OH, USA. ASIS, Silver Spring, MD, USA.

Three participants in the IDRC-supported computer conference, "Assessment Indicators for the Impact of Information on Development" and the postconference workshop in Nairobi, present a general overview of the project, their personal observations and the outcome of the exercise. This informal but insightful presentation is available on audio-cassette.

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Horton, F.W., Jr. 1994. Analyzing benefits and costs: A guide for information managers. International Development Research Centre, (IDRC), Ottawa, ON, Canada. 285 pp.

As one of the participants in the "impact" project, the author recognizes the need for a practical guide to help the information community in developing countries to analyze the benefits versus the costs of resource allocations to information activities. This is a useful management tool for government policymakers, library, or information agency managers, and project sponsors. It includes case studies, detailed technical guidelines and an Excel 3 for Windows Quickstart software diskette.

McConnell, P. (In press). Measuring the impact of information: implications for marketing. Paper presented at the IIMA/IDRC Workshop on "Marketing of Information Products and Services", Indian Institute of Management, February 1994, Ahmedabad. Sage Press, New Delhi, India.

Menou, M.J. 1993. The impact of information on development: Results of a preliminary investigation. Paper presented at the 3rd International Information Research Conference, July 1993, Poigny-la Forêt, France.

As the moderator of the computer conference and editor of the IDRC publication, "Measuring the Impact of Information on Development," the author describes the process and results of the conference and the workshop. He provides personal observations from his experience and offers plans for the next step and suggestions for further research.

Menou, M.J., ed. 1993. Measuring the impact of information on development. International Development Research Centre, Ottawa, ON, Canada. 188 pp.

For many years, institutions in developing countries and development assistance agencies have exerted considerable effort on various information projects on the assumption that these activities contribute to overall economic and social advancement. There had been no substantial study conducted, however, to prove this assumption. With support from IDRC, a group of the world's leading information scientists participated in a 7-month long computer conference to identify those parameters or indicators by which the impact of information programs or services can be assessed to ensure the relevance of information activities to development and to

provide concrete answers to decision-makers regarding the value of information. This publication discusses details of the process and outcome of the conference and presents the preliminary framework for impact assessment produced at the post-conference workshop in Nairobi. It concludes with suggestions for future activities, such as field testing, training, cost-benefit analysis and further research areas. It includes a 19-page bibliography.

Menou, M.J. (In press). From data to wisdom: Does IT contribute to the gross national happiness? In Lamberton, D., ed., *Beyond competition: The future of telecommunication*. Elsevier, Amsterdam.

Menou, M.J. (In press). The impact of information – I. Toward a research agenda for its definition and measurement. *Information Processing and Management*.

Menou, M.J. (In press). The impact of information – II. Concepts of information and its value. *Information Processing and Management*.

Stone, M.B. 1993. Assessment indicators and the impact of information on development. *Canadian Journal of Information and Library Science*, 18(4), 50–64.

In this keynote address presented at the 1993 CAIS/ACSI Conference, the Director General, Information Sciences and Systems Division, IDRC, provides the historical background of IDRC's support to information activities in developing countries and the rationale for the "impact" project. She explains the outcome of the Nairobi workshop where a conceptual framework for assessment was produced and proposes the creation of a decentralized international network of interested academic and research institutions to continue investigation.

Stone, M.B.; Menou, M.J. 1994. The impact of information on development. *Bulletin of the American Society for Information Science*, 20(5), 25–26.

The paper summarizes briefly the background and rationale leading to the "impact" project and describes the process and outcome of the first and the second phase and presents future plans.

B. Related Key Literature

Ang, J.; Pavri, F. 1994. A survey and critique of the impacts of information technology. *International Journal of Information Management*, 14, 122-133.

The paper reviews diverse literature on the impacts of information technology at the societal, organizational, and individual levels. At the societal level, which includes sociotechnical and economic aspects, the authors find that most studies are speculative, anecdotal, or based on surveys. The interest in IT at the organizational level is reflected in a large body of literature, some of which deals with sociotechnical and some with strategic impacts. The authors concede that the impacts of IT are complex and defy straightforward interpretation. The paper concludes with a discussion on the need for a plurality of perspective in IT impact research.

Feeney, M.; Grieves, M., ed. 1994. *The value and impact of information*. Bowker Saur, London, UK. British Library Research: Information policy issues. 303 pp.

This publication is based on a series of information policy briefings organized by the British Library Research and Development Department and covers various aspects of the value and impact of information. A comprehensive literature review by D. Badenoch et al. starts with definitions of terms such as "information," "knowledge," and "value," analyzes contexts of value and describes various approaches to measuring the value of information. It includes a 10-page list of references. J.-M. Griffiths and D.W. King describe the framework of measures used for numerous studies they conducted on the usefulness and value of special and public libraries, the results of which the authors believe demonstrate that libraries are an undiscovered national resource. J. Marshall describes two studies conducted on the impact of information services on decision-making: in the financial and health care sectors. M. Collier reports the results of a study on the impact of information on the management of a large academic institution. Also included in this volume are: "Information use and business success: A review of recent research on effective information delivery," by A. Abell; "What do large companies seek from national information policy" by B. Williams, "How much does British industry pay for patents and patent information?" by B. Mooney and C.

Oppenheim; and "Statistical perspectives add reality to policy debates: How well are we served by our statistical data?" by J. Sumsion and R. Marriott.

Fitzgerald, E.P. 1993. Success measures for information systems strategic planning. *The Journal of Strategic Information Systems*, 2(4), 335–350.

The article reviews information systems planning effectiveness literature and examines current approaches for measuring success. It provides an outline of approaches currently available and proposes directions for future research.

Hanna, N.; Boyson, S. 1993. Information technology in World Bank lending: Increasing the developmental impact. *The World Bank*, Washington, DC, USA. World Bank discussion papers, no. 206. 104 pp.

This study examines the patterns of World Bank lending for information applications in developing countries and the payoffs. Its lending for information technology (IT) rose from \$379 million in 1986 to \$890 million in 1991. There are information systems components in almost 90% of Bank lending operations. To measure the payoffs of Bank lending in IT, techniques from the total quality management field were employed. Quantitative process improvement measures and qualitative perceptions of "process owners" were gleaned from appraisal and evaluation reviews and structured surveys. In particular, three major areas of impact were targeted for examination: transforming trade and tax administration, modernizing public institutions, and poverty and social support. While highlighting the potentially high payoffs from "successful" IT investments, the study also points to common pitfalls and constraint. The study concludes with recommendations for both the Bank and developing countries.

Marshall, J.G. 1993. The impact of the special library on corporate decision-making: Final report of a research project funded by the Special Libraries Association. *Special Libraries Association*, Washington, DC, USA. SLA research series, no. 8.

Managers and executives from five major financial institutions were asked to request some information from their special library related to a current corporate decision-making situation and to evaluate the impact of the

information received. Better informed decision-making was reported by 84% of the responses. Special libraries are particularly effective in supplying new knowledge in decision-making situations and in increasing the level of confidence of managers and executives in the decisions being made. The results showed that, when libraries are used in decision-making situations, the information provided is frequently perceived by managers and executives as having a significant impact on their actions.

C. Other Literature of Interest

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- Kantor, P.B.; Saracevic, T. 1995. Studying the cost and value of library services. Alexandria Project Laboratory, School of Communication, Information and Library Studies, The State University of New Jersey, Rutgers, NJ, USA.
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- Documentaliste — Sciences de l'Information, 31(3), 186–188, 1994.
- Information Development, 11(1), 66–67, 1995.
- Information Processing & Management, 31(2), 255–256, 1995. Reviewed by M.M. Aman.
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- International Journal of Information Management, 15(1), 69–70, 1995. Reviewed by I. Rowlands.

Journal of the American Society for Information Science, 46(1), 75–77, 1995.

Reviewed by R. Samarajiva.

Le Lettre de PADIS Newsletter, 9(2), 7, 1994.

Managing Information, 1(7–8), 50, 1994. Reviewed by S.P. Webb.

The Network: a Newsletter for the Equal Exchange of Information on Trade and Technology, 7(4), 17, 1994. Reviewed by B. Thomson.

Prometheus: The Journal of Issues in Technological Change, Innovation, Information Economics, Communication and Science Policy, 13(1), 120–121, 1995. Reviewed by M. Jussawalla.

Third World Libraries, 5(2), 89–91, 1995. Reviewed by D. Rosenberg.