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**Can the Internet Respond to
Evaluators' Needs?
The Web as a Training Tool
and Information Resource**

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Introduction

This report deals with internet¹ resources for informing and training evaluators. Three aims motivate this research: first, to explore the key resources that already exist online; second, to examine specific online courses relating to evaluation from the point of view of the designers, as well as that of participants; third, to make recommendations for an online course which would respond to the expressed needs of evaluators. The sources listed in this paper must be considered as a selection of key resources, rather than representing an exhaustive catalogue. The latter would be impossible because of not only the vastness of the web and the plethora of resources relevant to evaluators therein, but also because the web, contrary to this text, is a dynamic and ever-changing medium. Also, this report does not focus on a particular evaluation area since it is concerned more with the possibilities and limits of the web as an information and learning resource to evaluation activities. Instead, I hope to offer a few starting points for evaluators who have not yet explored the web's potential as an information resource for their profession, and for anyone else interested in evaluation to become better informed and even to take an evaluation course. Ultimately, I aim to critically examine the potential of the web as a teaching tool for courses in the evaluation field which would respond to the needs, as well as criticisms, of those who would like to acquire basic or advanced skills relating to the field of evaluation. Thus, this work can be considered as a continuation of a previous project on evaluators' needs and concerns about their work (Bergman, 1999),² and as a preparation for a more systematic teaching program for evaluators.

Previous findings showed that over 70% of the 154 surveyed evaluators in Switzerland did not know of any evaluation courses, or were unable to recommend a particular course. When asked about the shortcomings in their field, a surprising number of respondents listed methodological and evaluation-specific skills. Overall, Swiss evaluators recognized the need for basic and advanced evaluation training, but were either unfamiliar with, or critical toward, current offers (Bergman, 1999).

The main obstacles toward basic and further education, according to my findings, include lack of time, financial resources, irrelevance of courses to the demands of the evaluators' job, as well as resistance of project leaders, clients, and evaluators themselves to adopt research and evaluation strategies other than those which they are familiar with. Echoing the saying "You teach them how to use a hammer and, suddenly, everything seems to need hammering," many felt that evaluators either chose, or are forced into, repetitive and unreflexive evaluation routines. Certainly with regard to research methods,

¹ For stylistic reasons and to avoid monotonous repetition, I will treat as synonymous the terms "internet" (i.e. the net) and "the web" (i.e. the World Wide Web, 3W, www). More precisely, however, the World Wide Web is a client-server hypertext, which is an information retrieval system that originated from the CERN High-Energy Physics laboratories in Geneva. In contrast, the internet is a huge network of three hierarchical levels, composed of backbone networks, mid-level networks, and stub networks, as well as commercial, military, and university networks, and other research networks around the world. Further information on this topic may be obtained at www.pcwebopaedia.com/ or www.techweb.com/encyclopedia/.

² Bergman, M.M. (1999). Evaluators Evaluating Evaluators: Peer Assessment and Training Opportunities in Switzerland. *Leges/Gesetzgebung Heute*, 2, 99, 1-25.

and probably also in the field of evaluation, many practitioners have stopped developing their tool kit. This is exacerbated by the fact that many have learned evaluation skills “on the job,” i.e. without exposure to practices other than the ones, which exist within a specific professional environment. Throughout the interviews conducted in conjunction with previous research, I also found that many evaluators, especially those resistant to additional instructions, had conflicting expectations toward professional training: on the one hand, they demanded that course material should be directly relevant to specific tasks of the individual evaluator and, on the other, it should contain core skills, which can be transferred not only to related tasks, but also to different settings and even sub-fields within the area of evaluation.

In sum, previous findings revealed that most evaluators (a) criticize evaluation practices for, among other concerns, a lack of skills, (b) would be interested in developing their skills further, but (c) do not know of any, or any recommendable, training schemes to acquire information and skills relevant to their situation.

Modes of, and Obstacles to, Learning

A more systematic analysis of the advantages and disadvantages of different modes of learning, as stated by my respondents, can aid in conceiving more client-based learning environments. In my study, I found that the main modes of learning for evaluators were limited to classroom instructions (e.g. through formal courses at universities or focused short-term seminars), structured learning programs or courses at the work place (e.g. seminars organized by the institution), unstructured on-the-job training (e.g. unstructured apprenticeship), or independent study (e.g. following textbooks and other available material). All of these modes are associated with different problems and advantages with regard to the general and specific needs of evaluators. The following table illustrates a schematic breakdown of the advantages and disadvantages of the different modes of learning, as stated by the respondents:

Table 1: Advantages and disadvantages of different modes of learning:

	Advantage	Disadvantage
University courses	Coverage of fundamentals	Removed from real-world evaluations
	Accreditation	Too general
	Transferability of credit and information	Too theoretical
	Diversified coverage	Time consuming
Organized courses/seminars	Applicable to work environment	Limited in information content
	Well-focused	Expensive (if not paid by employer)
		Lack of accreditation
		Too few or insufficiently advertised
On-the-job training	Integration into work environment	Workplace defines scope & content
		Unstructured
		Lack of accreditation
		Limited transferability of credit and information
Learning by doing	Self-paced	Learner defines scope and content
	Selective learning	Accreditation
		No process feedback
		Insufficient exchange with mentors or peers

It needs to be understood that the characteristics of the modes of learning listed in this table do not apply to all programs, courses, or practices. In other words, I am not claiming that university courses, for instance, are always too theoretical, or that learning by doing automatically results in a limited horizon of the evaluator; instead, I simply report what the respondents of my previous study told us about their experiences and concerns.

From Table 1 we can observe that it seems impossible to devise a program that would fulfil the diverse and sometimes incompatible needs. One single course ostensibly cannot satisfy needs toward general introduction, theoretical rigor, as well as being applicable toward all specific problems that evaluators encounter at the workplace. One single course cannot be tailored to a variety of specific jobs or problems, as well as teach general material that is transferable to other sectors and tasks. Finally, it is difficult to integrate self-paced learning modes with interactive and group-based modules within one course.

The Internet as a Learning and Teaching Tool

Whether we like it or not, the internet continues to revolutionize the way we seek, find, and diffuse information. Already, it has had a tremendous impact on commerce, publishing, and education. At the time of this writing, Cambridge University, England, and the Massachusetts Institute of Technology, USA, have formed a groundbreaking institute (CMI) to develop learning and teaching tools that rely heavily on the possibilities of the internet, while president-elect George W. Bush is currently meeting with top executives of the communication and computer industry to discuss, among other things, the future of education. As an emergent teaching and learning tool, the internet will, without a doubt, become an essential aspect of all levels of institutional learning.

As an information resource and communication tool, which can be accessed quickly and relatively inexpensively in nearly any part of the world, I will show in this report how this medium can fulfil many of the often-contradictory needs of evaluators. More specifically, I will demonstrate that this medium is tremendously flexible and adaptable, interactive, limitless in scope, and thus has numerous advantages to the more traditional modes of learning. Limitations of the internet as a teaching and learning tool for the field of evaluation will also be discussed.

Before we commit serious thought and other resources to the exploitation of the internet as a learning tool and information resource for evaluators, we may want to examine

- currently available information and internet courses on evaluation training
- internet course designers' view of their product
- participants' evaluation of internet-based courses as a mode of learning
- participants' assessment of the online course or program in particular

Information Relating to Evaluation on the Internet

The first goal of this project was to explore the internet for information and online courses on evaluation or materials that could be used as online teaching tools. This task turned out to be more challenging than initially expected. It was not a lack of web resources, which complicated my task, but the plethora of information. Many sites contained material, which can be considered too basic and incomplete, repetitive, unstructured, of mixed quality, and outdated. Other sites are gold mines for evaluators, evaluators-to-be, clients, or anyone who is interested in knowing more about, and

conducting, evaluations. In short, the material on evaluation on the web is massive and of mixed quality. The following section highlights a few resources available on the net. It consists of a brief overview of available evaluation sites posted by

- national/transnational associations
- regional associations
- associations or societies maintained by NGOs or government offices
- professional evaluation institutes

General information on evaluation, including introductory texts, definition of concepts, basic methods, etc., is readily available on web sites maintained by various evaluation societies and professional organizations. However, evaluation-related information can also be found on web pages, which are maintained by regional societies, topical interest groups within an evaluation society, government offices, evaluation organizations and institutes, or individual evaluators themselves. This is not the place to review the content of all sites, but I will briefly review the information content of a few selected sites. I have included a thematically organized selection of sites in Appendix B. However, a more extensive, systematic, and regularly updated overview of available resources could be enormously useful to anyone interested and involved in the field of evaluation.

National/Transnational Evaluation Associations

Websites maintained by evaluation societies tend to be a most useful starting point for finding answers to general, basic, or theme-specific information, including a delineation of the domain and its sub-domains, conceptual definitions, research methods, ethics, training opportunities, access to data sets, research and evaluation reports, and government contracts. Under the rubric “Documents” of the American Evaluation Association (www.eval.org), for instance, we find material relating to guiding principles for evaluators, venture and endorsement guidelines, and program and personnel evaluation standards. Or, under the heading “Help Desk and Major Topic Index,” the Australasian Evaluation Society’s page houses a great number of documents in alphabetical order (www.parklane.com.au/citynet/algindex.htm), covering a wide range of topics from access to local government, aging, or youth evaluation. The information contained in national/continental evaluation associations’ web sites tends to be well organized, has gone through a minimal review process with regard to quality control, and offers many links to related and more specific topics.

Most professional associations’ web sites contain membership information, including subscription information and various contact addresses, bulletin boards, abstracts of reports or full articles relating to evaluation, information about data banks, research standards and ethics guidelines, training opportunities, job banks, conference information, and – most importantly – links to other evaluation-related sites. Anyone interested in the field of evaluation, from evaluator to client to student, should be familiar with sites

maintained by these societies, if only to become aware of the tremendous wealth of information on evaluation.

The two most frequent criticisms raised in relation to these general sites are that the format and design of the web sites tends to change too frequently and that many links turn out to be dead ends³. To address these, web masters should avoid making unnecessary stylistic or other updates that do not constitute a major improvement with regard to access or information content. Second, links should be checked and updated frequently.

While some users complain that there is just too much information on these web sites, I believe that this should not be considered a shortcoming *per se*, as long as the information is meaningfully categorized (at least within a site, since it is not possible or even desirable to organize the internet as a whole) and the categories are clearly labeled.

Regional Evaluation Associations

Most regional societies can be found in the US and Canada. There may exist a number of reasons for maintaining a regional evaluation society despite the presence of a strong national society, such as being better able to respond to local and regional issues. However, supporting both regional and national evaluation societies may have negative consequences: a duplication of effort, thus, a waste of resources; incoherent or contradictory regulations and policies; and a potentially reduced basis of power, since evaluators' efforts are diffused across different local, regional, and national organizations.

A marked difference can be observed across web sites maintained by regional societies both in terms of organization of the site as well as the information content. While some are limited to giving the most basic and sometimes outdated information about the central office and the current president, others rival their national society in terms of the vastness and organization of information (e.g. the Société québécoise d'évaluation de programme: www.evaluationcanada.ca/sqep/index.htm).

Government and NGO Associations/Societies and Professional Institutes

Sites maintained by government offices and NGOs vary in focus and content. With the following brief description of the content of a few selected sites in this category, I intend to illustrate the different scope to the sites. For instance, in collaboration with SRI international, the US Science Foundation maintains an excellent online evaluation resource library (oerl.sri.com/). Resource types include evaluation planning, evaluation in-

³ By the time you read this report, some of the links in this article will have moved to other locations, changed format, or have been deleted. Unreliability with regard to specific information over time is probably the most serious drawback for using the internet as a reliable learning resource. This also is a problem in terms of using online publications since the content can be easily adapted to conform to current tastes, fashions, or requirements, and online content does not leave a time trace as do hardcopies such as books, journal articles, and even notes written on old-fashioned paper.

struments, evaluation reports, criteria and standards for developing evaluation plans, instruments, reports, glossary, discussion boards, and a section entitled “frequently asked questions.” The site deals explicitly with program evaluations and, more specifically, with curriculum development, teacher education, faculty development, and under-represented populations. Under the rubric “evaluation instruments,” we find entries relating to criteria for instruments, a glossary relating to evaluation instruments, and a wide range of samples that demonstrate how evaluation instruments were used in different types of program evaluation in education. The site mainly consists of downloadable documents of reports on these issues

PUMA examines the organization and management of the public sector in 29 countries (www.oecd.org/puma/index.htm). It is a forum where central management systems of government are studied, including budgeting and performance management, policy-making, regulatory reform, government-citizen relations, human resource management, and ethics and corruption. Under the heading “Human Resource Management,” for instance, we find information about public sector pay trends, employment statistics, management of the public sector, and public service staffing practices in various countries.

More locally oriented, the Netherlands Scientific Council of Government Policy maintains a site (www.wrr.nl/) that deals with issues relating to health care, transport and communications, and education in the Netherlands and Europe. It contains a wide variety of preliminary studies, working papers, and reports on these issues. Finally, it lists links and addresses to think tanks from around the world, which deal with topics as diverse as research of the future, science and technology, policy and political issues, culture and linguistics, etc.

Most government and NGO sponsored sites relating to evaluation contain reports on various programs.

Online Discussion Groups

Solving context-specific problems, finding highly specific and even esoteric information, tracking trends in the field, and achieving greater work-environment and professional integration can be accomplished by joining and consulting various professional discussion groups dedicated to professional evaluation. Their feedback can be mixed, i.e. some of the responses can be inappropriate, even rude. On the other hand, the online listserv discussion groups I joined in order to find out more about available internet resources for evaluators, have been excellent in a number of ways: first, there are many highly qualified individuals from all over the world, who give free advice to some of the most complex or basic questions. Second, feedback tends to be almost immediate. A well-specified question usually receives numerous responses within a few hours. Almost all professional discussion forums make available information, which explains how to register, how to ask questions online, and how to unregister. For a list of discussion forums, refer to Appendix A, Table 2.

Online Courses on Evaluation

How do web-based courses fare with regard to the above mentioned advantages and disadvantages? In order to determine the extent to which the internet is sufficiently sensitive to evaluators' training and information needs and constraints, let us look at what exists on the internet in terms of teaching tools.

In order to locate online courses on evaluation, I contacted regional, national, and international evaluation associations and professional societies, emailed hundreds of evaluators whose email address was listed on various evaluation-related web sites, and joined five online discussion groups which allowed me to post a request for information on online course.⁴ Numerous online courses on evaluation were found, which varied widely with regard to scope, quality, and instruction style. While some sites claim to be online courses but are nothing more than an advertising gimmick for a professional evaluation firm, others are so effective that they can easily function as a self-contained university course. Still others do not present themselves as online courses but match and even exceed the pedagogic style and material of accredited online courses. While it is impossible to clearly categorize the courses I found, a typology of approach can be observed: online textbook, interactive internet, and interactive mixed instruction.

Online Textbook Instruction

One approach to online instruction can be text-based learning. Some internet courses are nothing more than an online introductory text on program evaluation. Even within this category, we find material that varies widely with regard to the level of sophistication and extent. Because most of these, rather simple, sites lack a glossary, a bibliographic section, or interactive features, which would allow for more detailed and focused study, such courses tend to have limited value as a learning and information tool.

Interactive Internet Instruction

A second category is represented by an approach, which allows for a high level of interaction with the online information base. This type of instruction remains text and graphics-based, i.e. there is little or no possibility to interact with an evaluator or course instructor. Instead, this approach relies heavily on inter-linked texts, examples, bibliographic information, and referrals to other websites. Some courses subscribing to this approach are tremendously well developed, extensive in breadth, and are lovingly maintained. They offer not only basic and advanced texts on various issues relating to evaluation, annotated bibliographies, or competence tests and exam questions; some offer

⁴ I would like to thank all those who have provided me with leads to online courses, as well as online course designers and students or former students of these, who have allowed me to interview them.

instructors' lecture notes, as well as audio and video material pertaining to specific themes, which can be downloaded.

Interactive Mixed Instruction

This approach, as judged by participants, was the preferred form of instruction. A mixed approach means that, in addition to interactive internet instruction as discussed above, the participants have the additional possibility to interact with others in various ways, including asking questions and being supervised on a project by course organizers or their assistants, interacting with other course participants, or partaking in online discussion groups. This approach is marked by two types of feedback: outcome feedback, where participants receive feedback at the end of a lesson or project, and, more importantly, process feedback, which permits them to monitor their acquisition of knowledge and skills. In contrast to outcome feedback, process feedback has been shown to be more effective in the motivation to complete tasks, increase the speed of learning, and improve skill levels.

Review of Selected Online Courses

The following brief descriptions highlight the diversity of currently available courses. I have included the key reading lists in Appendix B for some courses, first, to inform the reader about the approach of the course which can often be extracted from the course reading list and, second, to illustrate the books currently used by some of the leading specialists within a particular area in the field. Not all online courses I found are described here, which does not constitute a comment on their quality. For additional courses, refer to Appendix A, Table 3. Also, a number of evaluators have informed me that they are currently working on an online course which will be made public within weeks or months. In order of appearance, to be considered in this report are maintained by Project Star, The Bureau of Justice Assistance, Centre for Program Evaluation (University of Melbourne), John Evans (Nova Southeastern University), Judy Baker (Texas Women's University), Western Centre for the Application of Prevention Technologies, and Michael Scriven (Claremont Graduate University).

Project Star is sponsored by the US National Service and provides technical assistance in evaluation (www.projectstar.org). It assists in the development of evaluation plans, identifies or creates evaluation instruments, determines optimal strategies for data collection, assists in analysis, and gives advice on how to report evaluation results to stakeholders. While it was set up explicitly to offer its services to Americorps, National Senior Service Corps, and the Learn and Serve Program, the instructive material on this site can be highly informative to students of evaluation and assist in the systematisation of the evaluation process for professionals. Arguably the most useful sections of this site toward this end are sections entitled objectives, evaluation plans, and reporting. In the

objectives section, for instance, we find texts on evaluation objectives and tips toward defining proper objectives, a blank objectives worksheet that can be adapted to other evaluation projects, and an interactive objectives plan page. Under the Evaluation Plan heading, we find a blank evaluation plan outline, an evaluation plan flowchart, and an interactive evaluation plan. Finally, under the Reporting heading, we find hints on how to write an evaluation report, informative brochure, grant proposal, and a press release. Stored newsletters offer some basic information on diverse topics, including data collection and analysis. A toolkit section aims to assist in meeting key evaluation needs in education, public safety, human needs, and the environment.

If properly adapted, the least this site can do is to structure an evaluation project and show non-professionals how they could conduct an evaluation. Alternatively, it could be useful for novices or as an introductory course exercise in workshops or seminars since its user-friendly, although somewhat basic, format seems geared toward supplemental information or an introduction to evaluation.

The **Bureau of Justice Assistance** manages a web-site (www.bja.evaluation-website.org/html/roadmap/index.html), which houses much useful information on evaluation. Several links can be selected which provide instructional materials to assist in planning, designing, and conducting evaluations of criminal justice programs, a glossary of evaluation terminology, a bibliography of evaluation materials organized by specific evaluation topics, including an introduction to evaluation, describing a program, framing evaluation questions, choosing an evaluation design, selecting, adopting, and developing data collection procedures, data collection procedures, and data analysis. Examples of evaluation projects and reports are provided, as are useful links to other evaluation sites.

When selecting the Performance Measures option from the Basic Fundamentals menu, we are transported to a section that deals with performance indicators, measurable objectives, and performance criteria. By clicking on key words embedded in the text relating to developing performance measures, e.g. “program model,” “goals,” “objectives,” or “program activities,” a sub-window opens which offers a succinct definition of the term. For instance, the term “impact” in the text on developing performance measures is defined as

The ultimate effect of the program on the problem or condition that the program or activity was supposed to do something about. FOR EXAMPLE, a 10% reduction in drug activity as a result of increased drug enforcement and investigation. (There also may be unexpected or unintended impacts.).

This useful function allows the reader to select terms they may be less familiar in the evaluation context or to ignore the additional information, if the reader wants to grasp the general theme of the text. At the end of the Performance Measures option, we have the possibility to read about this theme from ten examples of varying length. One of these ten, “Measurement Issues,” for instance, includes information on measurement of program input, measurement of intermediate program effects, measuring program outcomes, and alternative measures of program impact. While the content of these texts is too superficial to be considered an authoritative source on measurement in evaluation, it nevertheless can be used as a guidepost for this particular type of evaluation. Other examples

relating to performance measures come from texts dealing with prisons, courts, task forces, community corrections, and domestic violence. All of these examples deal with the general theme of performance measurement as it relates to the specific sub-field and include numerous bibliographic references.

Although limited in scope, this site is clearly organized, gives many useful real-life examples.

Beyond undertaking commissioned program evaluations on a consultancy basis, the **Centre for Program Evaluation** at the University of Melbourne (www.edfac.unimelb.edu.au/cpe/online.html) also aims to teach and coordinate graduate course in evaluation and to provide developmental activities for clients outside the university. The course fees depend on the course selection and country of residence. Among other qualifications, students can obtain a Post-Graduate Diploma in Assessment and Evaluation and a Master of Assessment and Evaluation. Four advanced online courses can be taken:

- Program Evaluation Forms and Approaches, taught by John M. Owen, aims to “[explain] key evaluation concepts related to negotiating the terms of an evaluation, managing relevant data, and providing findings to stakeholders, plan a small scale evaluation, be aware of recent developments in evaluative enquiry, particularly as they apply to the Australasian context, identify the limits of evaluation in decision making, and be able to undertake a critical review of an evaluation project.”
- Evaluation for Management and Development, taught by John M. Owen and Rosalind E. Hurworth, and divided into 12 sessions, aims to teach how to “appraise critically various approaches to evaluation for management and development; demonstrate an understanding of how evaluation can assist with the development and design of a new program, or in the refinement or consolidation of an existing program; apply skills associated with planning and implementation within the overall management of programs and organizations.”
- Qualitative Methods in Evaluation, taught by Rosalind Hurworth, aims to show how “evaluation/research questions and appropriate data management techniques are linked, select and apply a range of key qualitative data collection techniques, and undertake simple management, analysis and report writing using small-scale qualitative data sets.”
- Quantitative Methods in Evaluation, taught by Gerald Elsworth, covers Survey Sampling and Survey Design, Questionnaire Design and Construct Measurement, Exploratory Data Analysis, Explanatory Data Analysis with Multiple Linear Regression, An Introduction to Structural Factor Analysis (Structural Equation Modelling) and Multi-level Modelling, and Experimental and Quasi-experimental Designs and Appropriate Analysis” although the emphasis is on non-statistical understanding of these analytical techniques.
- Information Use in Change Management, taught by John M. Owen, is designed to provide an overview of theory and practice relating to “diffusion and use of new

knowledge in its various forms, for example the utilization of evaluation and research findings [and] factors which promote or militate against the impact of these types of knowledge.”

As part of the degree program through distance education at the Nova Southeastern University, John Evans offers an online introductory course on evaluation basics as part of the **Ed.D. Program for Educational Leaders** (www.fgse.nova.edu/edl/secure/EVASupport/). The home page has a number of useful links. First, there is the brief course in evaluation, which covers some basic ideas about the purpose of evaluation and the characteristics of a good evaluation, the major evaluation types, alternative summative evaluation methods, examples of the most common pitfalls in evaluating intervention programs, and a summary of key ideas for evaluating intervention programs.

A second option on the site offers more specific information under the rubric “Designs and suggestions for evaluating different kinds of practicum and dissertation projects.” Among the themes discussed are, for instance, how to implement a new curricular program, determine the effectiveness of a program to improve student achievement and attendance, establish a planning system, implement a new organization or administrative structure, determine the effectiveness of a staff development program, and evaluate the effect of reduced class size on behavior or achievement. Each theme contains a short text dealing with a particular problem. Unfortunately, no annotated bibliography accompanies these, which would be extremely helpful to the student who would like learn more about the subject. However, there exists a general annotated bibliographic section. Beyond offering personalized consultation, advice, and assistance via email or a phone number to his students, John Evans included downloadable study materials, which is divided into four sections: welcome and introduction, concepts and methods (Fitzpatrick, Newman, & Morris), key concepts (Kirkhart), and tools of inquiry (Sundre). Each of these sections can be downloaded via the excellent and free Adobe Acrobat Reader software (www.adobe.com/products/acrobat/readstep.html), i.e. they are text files using the pdf format, and are linked to required readings from Jaeger (1990), the Joint Committee on Standards for Educational Evaluation (1994), Scriven (1991), Seashore (1985), and Worthen, Sanders, and Fitzpatrick (1997).

The course is rounded off by an online evaluation exam, which is password protected.

Finally, the site also offers an excellent study area and filed study products, which include study guides, handouts, readings by various authors, bibliographic resources for specific themes, and exercises. Themes in this sections include Administrative Methods of Inquiry, Administrative Problems and Educational Research, Creating Learning Communities, Curriculum Development, Educational Leadership Appraisal, Educational Policy Systems, Establishing a Degree Concentration Evaluation, Field Study Seminar, Finance, Financial, political, and Legal Systems, Human Resource Development, Leadership Communication and Interpersonal Relations, Management and Supervision, Methods of Inquiry, Reflection and Vision, Research for School Improvement. Under the heading “Administrative Problems and Research,” for instance, we find a 32-page study guide for this section, a reading list (see Appendix B), and 22 pages of handouts including topic outlines and detailed lecture notes.

Overall, John W. Evans' site offers excellent learning tools for all levels of experience in the field of education evaluation.

Judy Baker at the **College of Health Sciences**, Texas Women's University, offers an online course on program evaluation in health education for enrolled students (www.twu.edu/hs/hs/hs5483/evalfram.htm). Visitors are invited to browse or follow the course but do not receive academic credit, unless they register with the university and pay the standard tuition fees. While interactive participation and the lecturer's feedback are restricted to enrolled students, the site tends to allow for self-study. Judy Baker believes that,

upon completion of the course, students will be able to recognize and use basic program evaluation and measurement terminology and concepts with accuracy, Analyze the quality of their own and others' evaluation designs, and Demonstrate program evaluation skills consistent with core competencies for health educators. Upon completion of course participation, students will be able to describe the purposes and politics of evaluation, distinguish between context (needs assessment), process, impact, and outcome evaluation, list the relative merits of external and internal evaluators, write a contract and proposal for providing program evaluation, identify stakeholders in program evaluation, recognize and resolve ethical dilemmas associated with program evaluation, explain the merits of triangulation with regard to data collection for program evaluation, describe the process of instrument development, apply at least three models or frameworks for program evaluation, list and describe at least three types of measurement instruments used in health education, describe how to establish validity and reliability of an instrument, describe at least two ways the evaluation design can influence threats to validity, compare the relative merits of qualitative and quantitative evaluation designs, describe at least three qualitative program evaluation data collection methods, select the appropriate qualitative program evaluation data collection method for a given situation, apply the Healthy People 2000: National Health Promotion and Disease Prevention Objectives to program evaluation, develop a budget and timeline for implementation of a program evaluation, describe the various types of cost analyses, their uses and abuses, select an appropriate sampling technique and conduct the sampling given a specific program evaluation situation.

While this list is most impressive in scope, it appears that the course, divided into 14 lessons, is intended as an introduction to program evaluation in health education. The site was last updated on 17 January 1998, which indicates that the author has not found the time since to work on the online course. The textbook for this course is Sarvela and McDermott (1993) although others are also recommended (see Appendix B).

In this online course, the main teaching tools are reading assignments from the course textbook, access to the instructor's notes, web-addresses to further resources on a specific topic, and, finally, an online group discussion around a particular question. To learn about Needs Assessment, for instance, the student is asked to read one chapter from the course book. Access to the instructor's lecture notes are provided, as are short texts dealing with topics related to needs assessment, including Multicultural Assessment (William E. Sedlacek and Sue H. Kim), Community Needs Assessment for Prevention of HIV/AIDS, and Using Secondary Data for Needs Assessment (Glenn D. Israel). The students are then asked to answer a set of lesson review questions, i.e. What is a needs assessment? Define it in your own terms and outline how to conduct one in a specific setting of your choice. What are typical data sources for needs assessment? List at least three sources of national data. Describe the type of data available from each. How can

the data be accessed? Describe the Rapid Assessment Procedure and how it can be used by health education program evaluators. What is the purpose of needs assessment? Explain how the PRECEDE model can aid program evaluators. Provide a hypothetical situation to illustrate your point. Finally they are encouraged to participate in a group discussion, in which the theme is given, i.e. Under what circumstances could you justify the necessity of a needs assessment, context evaluation or community diagnosis rather than process, impact, or outcome evaluation?

It appears that the rather detailed and complex questions cannot be answered from the material that is available online, but must be supplemented with further reading and course attendance. Nevertheless, Judy Baker's site is quite user-friendly, well-organized, and informative.

The web-site of the **Western Center for the Application of Prevention Technologies** (WestCAPT) is an excellent learning resource for prevention technologies (www.unr.edu/westcapt/). Funded by the Center for Substance Abuse Prevention, WestCAPT aims to assist states, jurisdictions, and community-based prevention programs in efficient, cost-effective, and culturally sensitive ways to apply scientifically-defensible strategies in an effort to prevent substance abuse. The program is located in the Center for the Application of Substance Abuse Technologies at the College of Education, University of Reno. The web-site includes staff and contact information, a full PowerPoint presentation, links to other prevention organizations, links to related resources (e.g. Centers for Disease Control and Prevention or a two-volume manual entitled "Getting to Outcomes" (www.unr.edu/westcapt/Gto/GTOVolumeI.pdf, www.unr.edu/westcapt/Gto/GTOVolumeII.pdf), which includes, among other things, a needs assessment questionnaire), and, most importantly, a guide to build a successful prevention program. This program is divided into seven steps, which include Community Readiness, Needs Assessment, Prioritizing, Resource Assessment, Targeting Efforts, Best Practices, and Evaluation. Each of these steps are broken down in smaller steps and briefly described. Assessment and implementation of the different steps are integrated in the site, as are research tools such as questionnaires, and real-life examples. For instance, under the heading Resource Assessment can be found a brief definition of key terms relating to this sub-heading, a justification of resource assessment in eight bullet points, and four links toward the completion of a resource assessment, including pre-requisites, data collection, analysis, and a section entitled "Finding the Gaps," which contextualizes the findings from the analysis by bringing the study back to the original community and its problem. The section on evaluation (www.open.org/~westcapt/evaluate.htm) is particularly well documented in terms of detail and substance.

This site offers excellent step-by-step instructions which can be adapted according to different communities, situations, and needs. Because the target group is not academically oriented, but rather for application, no bibliographic references are available. Nevertheless, in terms of describing the systematic process of prevention-related program evaluation, this site is exemplary.

Michael Scriven claims that he has "the only program in the world that teaches evaluation as a transdiscipline." (eval.cgu.edu/) His web-site is well balanced and -structured, varied, and highly informative, and is targeting students and professional

evaluators alike. He claims to cover fundamental concepts in evaluation, applied issues, advanced concepts, and research methods. A focused search on various key concepts via the onsite search engine confirms that this site does indeed cover an impressive range of topics.

It is possible to follow the online core evaluation course, divided into “Foundations” and “Advanced Evaluation,” as spectator, i.e. following an interactive web-based listserv with a net browser, or registered student for course credit. Currently, the online course fee for registered students is \$500, which allows them to participate actively in discussions, consult with the course convenor, take tests, get specific progress feedback throughout the learning process, and, upon successful completion, obtain a certificate from the School of Organizational and Behavioral Sciences, Claremont Graduate University. Furthermore, after passing an oral exam, the course credit can be applied toward any degree at the graduate program, including a Certificate of Advanced Study in Evaluation.

Spectators can watch courses as they run, free of charge, by following on-line discussions through the listserv (web-based discussion group) archives (lists.cgu.edu/archives/evalcgu.html), accessing online materials, and by taking interactive quizzes. The required textbooks currently are *Program Evaluation: Alternative Approaches and Practical Guidelines*, by Blaine R. Worthen, James R. Sanders, Jody L. Fitzpatrick. 1997. *Evaluation Thesaurus (4th ed.)*, by Michael Scriven. 1991, Sage.

Michael Scriven’s applied, no-nonsense approach permeates this site. For instance, one of the options in this site gives a brief exploration of major topic heading, which include Types of Evaluation, Objectivity and Subjectivity, Political Forces, Synthesis, and Criteria of Merit. Under the heading “Local (i.e. Subject Matter) Expertise vs. Evaluation Expertise,” we find the following entry:

Q. What if I don't have expertise in the field in which I'm conducting an evaluation? [Good example of a practical question.]

A. Hire someone who does as a consultant. This increases (a) validity, and (b) credibility, both of which are crucial in evaluation. Know your limitations, and get help in when you need to. [See also Expertise, Credibility, ET4]

It is madness to have local (subject matter) experts alone do the evaluation. They're members of the old boys' network, are in bed with all the other local experts who work in the program, and have little knowledge of key evaluation skills like cost analysis and needs assessment. [See also Local Expert, Incestuous Relations, ET4]

It is half-madness to have an independent evaluator do it alone (for validity and credibility reasons).

=> Use the mix, and for heaven's sake don't let the internal person design the evaluation. The external evaluation expert should be in charge of the design. [see also External, Internal Evaluator, ET4]

This solution - using a mix - is frequently the right one in evaluation methodology. For example, you should often use a mix of internal and external evaluators; or of qual and quant methods.

Current participants of Michael Scriven’s online course include doctoral students, professional evaluators, and senior administrators from various countries, including New

Zealand and Malaysia, and come from fields as diverse as psychology, education, health, and business and industry.

The only thing lacking is a detailed, annotated bibliographic index that would push advanced evaluators toward a less paradigmatic grasp of their discipline. Without further exposure to alternative texts, the evaluators become Michael Scriven Evaluators – certainly not a bad lot, but possibly uncritical toward their own practices and too dependent on the Master’s interpretation.

If the exam questions can be used as indicators of the level and range of topics in the course (see Appendix C), we can safely state that this is one of the best general online courses on evaluation currently available. Beyond these merits, Michael Scriven’s selfless dedication to the field is evident from other information that he makes available on this site, including job postings for evaluators, links to many professional evaluation organizations, government agencies, evaluation-specific discussion lists, and other research resources. Course Organizers and Participants of Online Courses

Obviously, online courses, just like other courses, are designed for a specific audience, which, at least, includes the taking into consideration of their level of expertise and the sub-field within which the course is located. Courses also vary with regard to their tone, i.e. the way the designers attempt to communicate the material. But beyond these limitations, there are other criteria in which the internet as a teaching and information medium, as well as online courses on evaluation in particular, can be most appropriate for evaluators. Interviews with course designers, as well as former and current students of online course revealed a number of advantages of online course over other ways of learning about evaluation. Because this research report aims to be not only an information resource for evaluators, but also to critically examine available online courses, designers and instructors of these were interviewed, as were former and current participants of such courses. This strategy provides insight into the experiences, course critique, and limitations of what the designers and teachers perceive, which are not the same as those perceived by former and current participants.

Online course designers and instructors believed strongly in the tremendous potential and future importance of web-based instruction. Many of them, especially those working in a university environment, considered themselves as visionaries or frontrunners and thought that their colleagues were unjustly negative about online courses. The colleagues opposing such forms of instruction fear, first, that online courses are too mechanical and programmatic, thus unreflective, and, second, such a form of instruction poses an existential threat to the university as an institution and teaching as a profession. While I did not find evidence for the former, the latter is critique may be justified. However, the combination of shrinking budgets and greater needs for flexibility, as well as highly varied, expanding, and specialized knowledge no longer permit us to ignore the internet as an adaptable and effective teaching resource.

The designers and instructors of internet-based courses listed a number of advantages of this type of instruction:

Cost-effectiveness

While the initial investment in terms of designing the content and computer programming is high, updating and running the course are far less expensive than a conventional university lecture course. Two instructors stressed that they enjoyed interactions with students more because instruction did not have to cover basic materials, which the students acquired from the resources on the website. Instead, the contact time with the students was dedicated to interactive exchanges about the material and was mostly dedicated to seminar-like interactions.

Also, the participants profit from lower costs of online courses, because online courses depend far less on an institutional infrastructure (e.g. rooms, institutional administration, cleaning and maintenance staff) which should be reflected in reduced fees.

Accessibility

Neither do students have to move near the institution at which the course is held, nor do they have to commute to and from individual lectures. Online courses allow them to design their course schedule around professional or familial responsibilities. To some extent, online courses could also help alleviate some forms of social inequality, especially with regard to certain marginalized groups, such as single parent households, the disabled, people living at a distance from teaching institutions, and the poor, who would be able to acquire more easily that which is arguably one of the greatest of equalizers in modern societies – education.

Self-paced: Beyond the ability to structure learning sessions around other commitments, it is also the degree of difficulty (from introductory material to advanced and specialized subjects), thoroughness (from a quick overview or refresher to a detailed study), and the speed of learning (from intensive and short-term to learning over a longer period of time) that is left up to the participant.

Interactive: because the participants have the flexibility to decide when, where, and what they are going to cover, even online courses with limited feedback possibility and personal instruction allow for a certain degree of interactivity. In online courses with instructors, more time can be spent on discussing the details of students' ideas and problems, because instructors do not waste time covering the basic material, which can be learned from web sessions. According to one respondent, this allows not only for quality instruction due to the interactive nature of the exchanges between the student and the course organizer, but also for more time spent with individual students.

Multimedia learning

Learning theory has shown that formal lectures are one of the least effective modes of learning. While other modes are more effective, it was found that a multimedia approach, involving listening, reading, viewing, participating in discussion, applying, and

attempting to teach the material to be learned are the most effective ways of learning, retaining, and applying course material. In a carefully designed learning environment involving the internet, most, if not all, of these dimensions can be included.

According to former and current participants of online courses, there are problems associated with web-based learning. However, as will become clear, most of these problems emerge from the choices made by the course designers, and are not due to the medium itself.

Assessment of progress of participants

Due to the self-paced nature of many online courses, it is difficult to assess progress of participants other than testing them on individual tasks. Group projects become difficult not only to assess but also to monitor, since not everyone advances at the same speed. Finally, many prefer online courses because they can control the content of their lesson, yet another obstacle to progress monitoring and assessment. Course designers believed that there was no other option than to decide initially whether the course would be self-paced does, thus, not allow for much group activities, or a course that would include the latter but restrict the flexibility of when and what needs to be studied. Future developments will show whether a compromise can be reached between these two options.

Opaque structure and content of online lectures

The lack of structure is nowhere more apparent on the web than in its varying content. In other words, not only must the learner wade through an enormous amount of “useless” sites (either because the content does not fulfil the needs of the learner), but sites either “disappear” because they are not maintained properly by the web master, or have changed in content or location. A carefully designed and maintained online course must create a learning environment that is both adaptive to the varying needs of the participants, but also structured to the extent that it permits systematic learning. In other words, it does not suffice to provide hundreds of evaluation-relevant links nor is it enough to paste a textbook on the web. Governments, learning institutions, and ingenious individuals are currently pouring tremendous resources into exactly this area, while the individual course designers are finding their own compromise between flexibility and rigid structure.

Lack of feedback

Many participants complained of the lack of interaction with mentors and peers, which may result in a lack of process feedback, i.e. feedback that is necessary during the learning process when the learner is engaged in a task. Some stated that email-based interaction with the course organizers or their assistants cannot substitute face-to-face contact with mentors or peers during the more complex portions of a project or when

trying to master the more complex learning material. As mentioned above, however, this is more a problem of the course design, rather than the medium.

“Impersonal”

Due to the self-paced nature, some learners may become discouraged or bored because there is no significant other in terms of peers and mentors who impose at least a form of regularity onto the learning process. To counteract this, and to create a more satisfying and, ultimately, successful learning environment, course designers may want to include interactive exercises such as discussion groups among participants or feedback loops with supervisors or assistants.

Requires Hardware and Computer Skills

Some do not yet have the skills to work effectively with computers in general, or with web-based tools in particular. Course designers cannot do anything about lack of hardware or software, but they certainly can design sites that are clearly structured and labeled. Innovations should not entail leaving the fundamental conventions of the internet protocol.

Accreditation

Accreditation and transferability of course credit is difficult to achieve because the course convenor can never know who the person at the remote site was. Password protection can assure that no one other than a password holder can access course or testing material. However, password holders may not necessarily be who they claim to be. Most for-credit courses therefore require an on-site oral and/or written exam of the online course material. This usually entails traveling to the course convenors' home institutions.

Too Few Interactions

Many evaluation activities are strongly team-oriented while internet-based learning tends to be highly individualistic in the sense that the individual participant selects the structure and content, as well as the degree of detail and speed of instruction. Important skills such as reaching consent by discussion and compromise, turn taking, understanding the needs and concerns of others involved in the evaluation process, are lacking in this form of learning. However, such criticism can also be raised against conventional courses. Only a practicum or a carefully designed and supervised group exercise could fulfil this requirement. In general, online course designers are free to include in their course various modes of interactions, which include interactions via email with instructors, tutors, assistants or amongst participants; discussion forums amongst

participants; well-designed hyperlinks that connect different interest areas responsive to the online user; professional discussion forums maintained by different evaluation societies; etc.

The results of my inquiry about the advantages and disadvantages of evaluation courses as perceived by former and current participants are summarized in the following table.

Table 2: Advantages and disadvantages of different online courses:

	Advantage	Disadvantage
Online Textbook Instruction	Cheap	Lack of detail
	Easy to install	Not interactive/structurally rigid No feedback Boring
Interactive Internet Instruction	Highly interactive Adaptable to different levels of skill or interest	No feedback from instructor
Interactive Mixed Instruction	As above plus: Process and outcome feedback Could be praxis oriented Test skills and knowledge	Requires staff and supervisors

Let us look in a more systematic manner at the advantages and disadvantages of the different learning modes as listed in Table 1 and see how especially the disadvantages could be countered by internet-based courses.

Whether evaluators find a conventional course too general or specific, too theoretical or applied, too long or short, such qualities imply that the structure and content of such a course is too rigid and constrained with regard to needs as perceived by evaluators. The scope of this paper does not permit us to discuss, if evaluators, especially those insufficiently trained, have enough insight to determine their needs and requirements and are, thus, in a position to determine the content of the materials they need to acquire, but an internet-based course can, *if so designed*, improve on the above mentioned limitation of conventional courses. Unfortunately, most online courses have not yet incorporated the added possibilities of the internet but are, instead, replicating conventional teaching modes. In other words, many online courses are nothing other than conventional courses at the computer screen, i.e. online book chapters, classic homework assignments, etc. Such a course will not only have the same limitations as conventionally taught courses, but will probably be even less successful in transmitting knowledge. A web-based course,

in contrast, which takes advantage of the possibilities of the web, will act more like a facilitator to knowledge, rather than an authority on a limited, i.e. rigid, amount of knowledge. Such a course will, on the one hand, convey and test knowledge, but also – and more importantly – integrate the participant into the field by, for instance, encouraging interactive exchanges with students, teachers, supervisors, professionals, institutions, and the wider research and evaluation community. This can be achieved, for instance, by the possibility to link different web sites. Thus, general information, as well as introductory and topic-specific knowledge, training and testing of fundamentals of evaluation, may be structured on a site such that this knowledge may be transferable to other sectors or tasks by drawing attention to relationships and by creating hyperlinks to other knowledge areas. In terms of diversity, there exists no other medium that allows for as much access to general and special topics. The challenge, even art, of designing an online course will be to find a compromise between a contained learning experience in the form of a knowledge environment on the one hand, without delimiting the material such that it resembles a conventionally taught course and, hence, neglecting the capacity of the web, on the other hand.

The teaching of fundamentals, i.e. concepts, definitions, and basic procedures, thus, should not be a problem since general introductory texts and interactive exercises can be combined to transmit a basic knowledge of the field of evaluation across its sub-disciplines. Such fundamental knowledge can be transferred to related evaluation areas. Furthermore, it is quite easy to diversify coverage by including general introductory texts and exercises on specialize topics, such as ethics, client relations, etc., something that is more difficult to achieve in more classic modes of learning; the latter tend to be covered, most often insufficiently, at the end of a lecture series, if at all.

Because the internet can accommodate an unlimited amount of documents, the material is limited only by the individuals who manage the site or the selective exposure to these by the student.

Praxis-orientation is a multifaceted problem: with regard to praxis-related materials, online courses tend to be well-prepared since many offer actual reports and data bases on professional evaluation in their field. Many exercises and exams are formulated such that they simulate actual evaluation contracts. In this sense, the degree of theory or praxis-orientation of the learning materials depend on the material made available to the student. What may be difficult to achieve are aspects of praxis-orientation that cannot be transmitted by reading texts and responding to exercises, especially because evaluation as a professional activity has an extremely interactive aspect to it, which may be difficult to replicate on the web. Some strategies used in online courses include close and interactive supervisions with the course designer or course assistants while working on an evaluation project. But even this form of praxis-orientation does not quite emulate the task of professional evaluation, especially with regard to the complex relationship with clients, stakeholders, and those to be evaluated. Course designers claimed that there is no way such exposure to “real-world” evaluation can be introduced in an online course – nor any other structured course or seminar. One course convenor suggested that a practicum would allow for this level of praxis-orientation, especially if it would be possible for the student to consult with the course organizer during this hands-on experience.

Web-based modes of learning are highly cost effective in a number of ways: first, while the initial investment for a web-based course with regard to computer programming is considerable, it is nevertheless far cheaper than classic lecture courses. From the point of view of the user, it also offers substantial cost-effectiveness in terms of both time and money. Because users can choose when to log on, as well as how much time to spend in front of the computer, they can easily schedule learning sessions around their professional and family life. This would be especially useful for people who would not otherwise be able to follow organized classes, e.g. those who are unable to easily get to a university or other learning center due to a physical disability, caretakers of young children, etc. Such flexibility, of course, has its downside: some argued that because they could work on the lessons according to their own pace, they often did not feel motivated or compelled to study. Hence, it took them too much time to finish learning modules and some of the learning was rather superficial because they did not spend enough time on the more complex or “boring” parts of a module.

What should not be underestimated is the trepidation with which some individuals approach computers. While they seem so elementary to some, it should not be taken for granted that those who would like to learn more about evaluation own an internet ready computer, have the skills to work with a computer, are familiar with the workings of the internet, e.g. how to look for, and choose a web site, and may not feel intimidated by this mode of learning. There are a surprising number of web sites available for novices to learn more about the computer or the internet, yet such information is obviously wasted on those who do not have the hardware, software, or the basic skills and courage to find and use these sites.⁵

Most online courses are entirely self-paced in the sense that it is up to the individual to select and acquire the skills presented on the various sites. The course convenors, however, suggest that participants should set aside a regular time slot for visiting the site. In order to advance, one of them proposed not to study more than two times 45 minutes per day, but to do this at least once per week. An exception to this self-paced rhythm are for-credit university courses which have clear project deadlines and exam dates, which are posted on the web site.

Summary and Conclusion

This report has surveyed and examined various internet sites dedicated to inform and train evaluators. It was found that such content, while varying in scope and quality, represents an invaluable tool for evaluators. Furthermore, future trends clearly indicate that this medium will become the most important resource of information and training – also in the field of evaluation. However, to consider the web as it currently exists as a

⁵ Nevertheless, for those who have internet access and a few basic skills, I have listed a few helpful sites on how to use a computer and the internet in Appendix A.

learning and research tool, which is independent or an alternative to other pedagogic modes, reflects a misunderstanding of the possibilities of the web. Instead, a well-structured and thematically organized course content, which is sensitive to the context-specific nature of the learner, the tremendous variety of evaluation tasks, and the work environments, resource limitations, and clients' needs, could very well be presented by using the remarkable potential of the web *in conjunction with* other learning methods. Thus, we can easily combine the near-limitless nature of the web in terms of type and amount of information and an imposed, yet flexible, external structure that channels learners toward acquiring the desired and needed knowledge, and providing a road map to existing sources that could be tapped. Toward this goal my interviews with course designers and convenors have revealed the following recommendations:

- Do not maintain the same learner-passive structure as in a conventional lecture course, i.e. dull online texts, reading lists, exercises, and due dates of homework or projects, as the main forms of information and instruction. Instead, use the capabilities of the web creatively by not only including hyperlinks to other areas and sites, but also dynamic images and graphics, audio and video files, email and chat rooms. Downloadable audio and video files, for instance, can be the result of student projects and used for discussion groups.
- Engage participants through discussion and give process and outcome feedback in a timely manner. Otherwise, especially due to the lack of personal interactions with other students and teachers, participants of online courses will drop out more quickly than conventional students.
- Encourage group projects and applied exercises that permit the participant to communicate and negotiate solutions with others, as well as gain a sense of accomplishment for a substantial work.
- Customize the course content by adapting it to the current interests of both the course designer and the immediate group of participants. This strategy will keep all interested and the material relevant and timely.
- Share the programming and pedagogic work with others, i.e. other convenors and assistants to reduce work load and responsibility, as well as to create collaborative and creative synergies between course constructors.
- Keep a carefully maintained file system of participants and maintain a journal. This would reduce the impersonal aspect of an online course and help keep track of problems and progress of participants. Also, such notes can be invaluable in improving the online course.
- Keep up with hardware, software, and online course instruction trends and involve up-to-date site designers.
- Allow the online course to grow in terms of both content and scope, i.e. integrating a more introductory or advanced module, as well as an extension of an already existing content.

- Keep up with web-based information relevant to the course and the field and integrate it into the learning site. This includes regular maintenance and updates of links to other sites.

Overall, by using the web not merely as an answer to conventional learning needs or, worse, merely a cost-cutting textbook, but as a tool among others to construct a new learning environment that is responsive to both the stringent requirements of the profession, as well as the needs and resources of evaluators, we could offer far more than knowledge; we could create professionals who are concurrently mining and producing learning tools, skills, and knowledge.

Appendix A: Selected Websites

General Information on Evaluation

Evaluation Societies' Web Sites:

American Evaluation Society	www.eval.org/
Australasian Evaluation Society	www.parklane.com.au/aes/
Canadian Evaluation Society	www.evaluationcanada.ca/
European Evaluation Society	www.europeanevaluation.org/
French Evaluation Society	www.sfe.asso.fr/
German Evaluation Society	www.degeval.de/
Italian Evaluation Society	www.valutazione.it/
Swiss Evaluation Society	www.seval.ch/
UK Evaluation Society	www.evaluation.org.uk/

Regional Evaluation Societies:

Arizona Evaluation Network (US)	aspin.asu.edu/azenet/
Oregon Program Evaluators (US)	www.oregoneval.org/
Southeast Evaluation Association (US)	www.bitbrothers.com/sea/
Washington Evaluators (US)	home.netcom.com/~tangb/
Western Pennsylvania Evaluator's Network (US)	trfn.clpgh.org/wpen/
Eastern Evaluation Research Society (US)	www.eers.org/
British Columbia Chapter of CES (CA)	www.evaluationcanada.ca/sqep/index.htm
Alberta Chapter of CES (CA)	www.connect.ab.ca/~parl/CES/alberta.html

Topical Interest Groups within Evaluation Societies

Alcohol, Drug Abuse, and Mental Health (US)	www.uky.edu/OtherOrgs/ADAMHTIG/
Minority Issues in Evaluation (US)	www.winternet.com/~octsys/aea/
Teaching of Evaluation (US)	home.okstate.edu/homepages.nsf/toc/tigtoe2/
Education Evaluation (Australasia)	www.parklane.com.au/evalnet/630530.htm
Management Practice (Australiasi)	www.parklane.com.au/evalnet/630545.htm
Information Technology (Australasia)	www.parklane.com.au/evalnet/630560.htm
Evaluation Theory and Process (Australasia)	www.parklane.com.au/evalnet/630540.htm
Economic Development (Australasia)	www.parklane.com.au/evalnet/630520.htm
Health Care (Australasia)	www.parklane.com.au/evalnet/630550.htm
Evaluation in Higher Education (D)	www.degeval.de/ak_hs/ak_hs.htm
Evaluation of HIV/AIDS Prevention Programs	www.caps.ucsf.edu/capsweb/index.html
Evaluation of Research-, Technology-, and Innovation policy (D)	www.degeval.de/ak_in/ak_in1.htm
Theory-Driven Evaluation and Program Theory	www.cgu.edu/sbos/tde/

Government and NGO Maintained or Sponsored Sites:

Innovation Network, Inc.	www.innonet.org/
Grantmakers Evaluation Network	hogg1.lac.utexas.edu/Gen/
ERIC Clearinghouse of Assessment and Evaluation	ericae.net/
US Directorate for Education and Human Resources of the National Science Foundation	oerl.sri.com/
US National Science Foundation Directorate for Education and Human Resources	www.ehr.nsf.gov/EHR/EHR/pubs/publis12.htm

Netherlands Scientific Council for Government Policy	www.wrr.nl/
UK Innovation Serviced Directorate	www.dti.gov.uk/tese/
Centers for Disease Control Evaluation Working Group	www.cdc.gov/eval/index.htm

Evaluation Organizations, Institutes, and Centers:

University of Michigan Documents Center	www.lib.umich.edu/libhome/Documents.center/frames/statsfr.html
Government Performance Information Consultants (US)	www.appliedsurveyresearch.org/evaluations.htm/
Centre for Program Evaluation (US)	www.edfac.unimelb.edu.au/cpe/cpe.html/
International Evaluation Research Group	www.c3e.fr/Inteval/home.htm
Program for Public Sector Evaluation (US)	www.rmit.edu.au/departments/as/ppse/indexPPSE.html
Applied Survey Research (US)	www.appliedsurveyresearch.org/evaluations.htm/
Evaluation Associates (US)	www.evaluation.co.uk/evaluation/how%20to%20evaluate.html/
University of Leipzig	www.uni-leipzig.de/~eval/Indlink.htm
The Evaluator's Institute (US)	www.evaluatorsinstitute.com/
International Association for the Evaluation of Educational Achievement	www.iea.nl/
UNESCO Bureau of Programming and Evaluation	www.unesco.org/bpe/
UNICEF	www.unicef.org/reseval/
United Nations Evaluation Office	www.undp.org/eo/index.htm
Evaluation Support Services (U of Western Michigan)	www.wmich.edu/evalctr/ess.html/
Performance Assessment Links in Science (US)	pals.sri.com/
Public Management Service OECD (PUMA)	www.oecd.org/puma/index.htm

World Bank Institute	wbln0018.worldbank.org/wbies/wbievalu.nsf/
World Bank Operations Department	wbln0018.worldbank.org/oed/oedevent.nsf/htmlmedia/Interhome.html
Joint Committee on Standards for Evaluations (US)	www.wmich.edu/evalctr/jc/
American Education and Research Network (Division H) (US)	www.aera.net/divisions/h/index.html
Harvard Family Research Project	gseweb.harvard.edu/~hfrp/eval/

Sites Maintained by Individual Evaluators

Catherine Elwell	www.itrs.usu.edu/AEA/index.html/
David Fetterman	www.stanford.edu/~davidf/
Gene Shackman	redrival.net/evaluation/
Bill Trochim	trochim.human.cornell.edu/
Michael Scriven	www.cgu.edu/faculty/scriven.html

Discussion Forums

American Evaluation Association discussion list	members.home.net/saumitra/AEA/evaltalk.html
Government Evaluation list (US)	www.eval.org/ListsLinks/ElectronicLists/govteval_list.htm
International and Cross-Cultural Evaluation list	www.eval.org/TIGs/empower.html#xceval
Minority Issues in Evaluation list	www.eval.org/TIGs/empower.html#mie
German Evaluation Societies list	www.degeval.de/deutsch.htm

Online Courses

Program Evaluation and Research Design (Bill Trochim)	trochim.human.cornell.edu/COURSES/PAM613/pam613.htm
Human Resource Education Online, University of Illinois, Urbana-Champaign	euro.hre.uiuc.edu/hrewebsite/hreonline/index.html
Open University, The Netherlands	www.ouh.nl/dhtml.htm
World Bank Learning Network	www.worldbank.org/distancelearning/
Centre for European Evaluation Expertise	www.c3e.fr/anglais/accueil1en.htm

(in French and English)

Seminar on Industrial Modernization (Philip Shapira)	cherry.iac.gatech.edu/sim/
Murdoch University Online (Australia)	www.murdoch.edu.au/online/
The Distance Learning Channel	www.ed-x.com/
College of Business and Professional Studies, Bellevue University	www.bellevue.edu/Programs/bizprof.html
Cyber Education Online, University of Massachusetts, Lowell	cybered.uml.edu/
Rochester Institute of Technology	distancelearning.rit.edu/
University of Phoenix	online.phoenix.edu/
Centre for Program Evaluation, University of Melbourne	www.edfac.unimelb.edu.au/cpe/online.html
Nova Southeastern University	www.nova.edu/cwis/disted/index.html
US Bureau of Justice Assistance Evaluation	www.bja.evaluationwebsite.org/html/roadmap/index.html
US Education Program Evaluation	www.ed.gov/offices/OUS/eval/
US Department of Health and Human Services Program Evaluations Abstracts	www.os.dhhs.gov/search/prog_eval.html
Evaluation and Accountability Resources (US)	www.ca.uky.edu/agpsd/soregion.htm

Online Texts and Textbooks on a General Overview relating to Evaluation:

Quasi-Experimental Evaluation	www11.hrdc-drhc.gc.ca/edd/toolkit.list
MandE News (News Service for Developments in Monitoring and Evaluation Methods)	www.mande.co.uk/news.htm
Basic Guide to Program Evaluation (C.M. McNamara)	www.mapnp.org/library/evaluatn/fnl_eval.htm
UNICEF Guide for Monitoring and Evaluation	www.unicef.org/reseval/
The Program Manager's Guide to Evaluation	www.acf.dhhs.gov/programs/rde/manual1.htm
350 (!) Online books, reports, journal articles, and papers on educational measure-	ericae.net/ftlib.htm

ment, evaluation, and learning theory.

Concept Mapping for Research Problem Formulation	trochim.human.cornell.edu/kb/conmap.htm
User-Friendly Handbook for Mixed Method Evaluation	www.ehr.nsf.gov/EHR/REC/pubs/NSF97-153/start.htm
W.K. Kellogg Foundation Evaluation Handbook	www.wkkf.org/Publications/evalhdbk/
Outcome Measurement Resources	national.unitedway.org/outcomes/pgmomres.htm national.unitedway.org/outcomes/publctns.htm
The Checklist Project	www.wmich.edu/evalctr/checklists/
Alternative Methods for Collecting Evaluation Data	ag.arizona.edu/fcr/fs/cyfar/evaldata.htm
Evaluation Primer: An overview of Education Evaluation	www.ed.gov/offices/OUS/eval/primer1.html
Evaluation Primer on Health Risk Communication Programs and Outcomes	www.atsdr.cdc.gov/HEC/evalprmr.html
Research Synthesis Gallery (syntheses including education, environment, health, international development, management, research methods, and welfare)	trochim.human.cornell.edu/gallery/gallery.htm
A Review of Evaluation Resources for Nonprofit Organizations	www.ccp.ca/information/documents/gd44fr.htm
Not specific online courses but similar in content:	www.open.org/~westcapt/sitemap.htm

Sites to learn how to use a computer/internet:

Online Netskills Interactive Course (TONIC)	www.netskills.ac.uk/TonicNG/cgi/sesame?tng
Publication by the UK Government on how to use the internet and email:	www.isi.gov.uk/isi/advpubsframe.htm

Sites to help design and improve a website:

Review of web design software	www.isp.com/res/r5017-00.html
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Dreamweaver web design software	www.macromedia.com/software/dreamweaver/
Help site maintained by Web Design Group	www.htmlhelp.com/
Automated links check and website improvement	websitegarage.netscape.com/O=wsg/
Free HTML toolkit for UNIX	www.engelschall.com/sw/wml/

General Online Bookstores:

Barnes and Noble:	www.barnesandnoble.com/
Amazon.com:	www.amazon.com/
Heffers:	www.heffers.co.uk/
Waterstones:	www.waterstones.com

Most publishers have their own web site and online store.

Appendix B: Items from Reading Lists of Selected Online Courses

Centre for Program Evaluation, University of Melbourne:

- Bryman, A., & Cramer, D. (1999). *Quantitative Data Analysis with SPSS for Windows*. Routledge.
- Fetterman, D., Kaftarian, S.J., & Wandersman, A. (1996). *Empowerment Evaluation: Knowledge and Tools for Self-Assessment and Accountability*. Thousand Oaks, CA: Sage.
- Havelock, R. et al. (1971). *Planning for Innovation through Dissemination and Utilization of Knowledge*. Ann Arbor, CRUSK.
- Lindblom, C.E. & Cohen, D.K. (1979). *Usable Knowledge*. Newhaven, CT: Yale University Press.
- Owen, J. M., & Rogers, P.J. (1999). *Program Evaluation: Forms and Approaches (2nd ed.)*. Sydney: Allen & Unwin.
- Patton, M.Q. (1986). *Utilization Focused Evaluation (2nd ed.)*. Newbury Park, CA: Sage.
- Patton, M.Q. (1990). *Qualitative Evaluation and Research Methods (2nd ed.)*. Newbury Park, Ca: Sage.
- Pedhazur, E. J., & Pedhazur Schmelkin, L. (1991). *Measurement, Design and Analysis: An Integrated Approach*. Lawrence Erlbaum.
- Shaw, I.F. (1999). *Qualitative Evaluation*. London: Sage.
- Torres, R. T, Preskill, H., S., & Piotnek, M.E (1996). *Evaluation Strategies for Communicating and Reporting*. Thousand Oaks, CA: Sage.

Ed.D. Program for Educational Leaders, Nova Southeastern University (John Evans's course):

- Achilles, C. M., Reynolds, J. S., & Achilles, S. H. (1997). *Problem analysis: Responding to School Complexity*. Larchmont, NY: Eye on Education.
- Borg, W. R., Gall, J. P., & Gall, M. D. (1999). *Applying Educational Research: A Practical Guide (4th ed.)*. New York: Longman.
- Campbell, D. T., & Stanley, J. (1963). *Experimental and Quasi-Experimental Designs for Research*. Boston: Houghton Mifflin.
- Campbell, D. T. (1969). *Reforms as Experiments*. *American Psychologist*, 24, 4.
- Chelmsky, E., & Shadish, W. (1997). *Evaluation for the 21st Century: A Handbook*. Thousand Oaks: Sage Publications.

- Cook, T. D., & Campbell, D. T. (1979). *Quasi-Experimentation: Design and Analysis Issues for Field Settings*. Boston: Houghton Mifflin.
- Finn, J. D., & Achilles, C. M. (1990). Answers and Questions about Class Size: A State-wide Experiment. *American Educational Research Journal*, 27(3), 557-77.
- Haller, E. J., Brent, B. O., McNamara, J. L., & Rufus, C. (1994, April). Does Graduate Training in Educational Administration Improve America's Schools? Another Look at some National Data. Paper presented at the American Educational Research Association, New Orleans.
- Ho, E. S.-C., & Willms, J. D. (1996). Effects of Parental Involvement on Eighth-Grade Achievement. *Sociology of Education*, 69, 2, 126-141.
- Jaeger, R. M. (1990). *Statistics: A Spectator Sport* (2nd ed.). Beverly Hills, CA: Sage.
- Joint Committee on Standards for Educational Evaluation (1994). *The Program Evaluation Standards: How to Assess Evaluations of Educational Programs* (2nd ed.). Thousand Oaks, CA: Sage.
- Scriven, M. (1991). *Evaluation Thesaurus* (4th ed.). Beverly Hills, CA: Sage.
- Seashore, H.G. (1985). *Issues in Testing Number 2*. Harcourt Brace.
- Worthen, B., Sanders, J., & Fitzpatrick, J. (1997). *Program Evaluations: Alternative Approaches and Practical Guidelines* (2nd ed.). New York: Longman.
- Supplementary reading in the form of a 229-page manuscript, entitled "Using Educational Research: A School Administrator's Guide," written by Emil J. Haller and Paul F. Kleine.

College of Health Sciences, Texas Women's University (Judy Baker's course):

- Green, L.W., & Lewis, F.M. (1986). *Measurement and Evaluation in Health Education and Health Promotion*. Palo Alto, CA: Mayfield.
- Herman, J. L. , Morris, L. L., & Fitz-Gibbons, C.T. (1987). *Evaluator's Handbook*, Thousand Oaks, CA: Sage
- Orlandi, M. A. (Ed.) (1992). *Cultural Competence for Evaluators*. USDHHS Publication No. (ADM) 92-1884.
- Sarvela, P., & McDermott, R. (1993). *Health Education Evaluation and Measurement*. Dubuque, Iowa: Brown & Benchmark.

Appendix C: Michael Scriven's Online Evaluation Core Course Exam details

Sample Assignments from Michael Scriven's Online Evaluation Core Course:

- 1a) What are the differences between internal and external synthesis?
- 1b) What is the difference between meta-evaluation and meta-analysis?
- 2a) What are the problems with straight "GAE" (goal-achievement evaluation)?
- 2b) Which of these problems might a good GBE (goal-based evaluation) address and how?
- 3) Under what circumstances would you do a participatory evaluation rather than a distanced evaluation?
- 4) You are evaluating a diversity training program. The client asks you to make some recommendations for improvement. List the various kinds of recommendations someone might make. Which of these would you A) Not make under any circumstances, B) Make under certain circumstances - state what those circumstances would be, C) Make without hesitation.
- 5a) What is a transdiscipline? Name three examples. Explain the difference between the view that evaluation is a transdiscipline and the view that it's an interdiscipline or multidisciplinary.
- 5b) What's the difference between intradisciplinary and interdisciplinary evaluation?
- 6) Professors (and their TA's) who give more favorable grades receive higher student ratings. Student ratings are an important measure of teaching quality. Therefore, a good professor is one who nudges the grades higher if the class average is low. True?
- 7) What inferences can be made, under what conditions, between grades, ranks, and scores? Give an example of each to illustrate your answer.
- 8) What are the three types of subjectivity? Give examples that show the relevance of this to evaluation.
- 9) In your first evaluation job, you have been asked organize the evaluation of an airline pilot training program. You've been given a budget to hire on some experts, and the head of the training program suggests you use one of her trainers, an aircraft mechanic, a sales representative from Boeing (the company that built the plane), a human factors engineering expert, a highly experienced aviator, and a cognitive psychologist who specializes in complex skill acquisition. Who amongst this list would you choose and why? Anyone missing? What would be your role on the evaluation team and why?
- 10) The values checkpoint on the KEC serves what purpose?

Practice questions for Michael Scriven's advanced online course on evaluation:

Do a cost analysis of consulting vs. working as an employee.

What are the important considerations when deciding how to price consulting services?

What are the two types of consultants that have an easy time consulting, and why?

How can you demonstrate the value of a well-designed personnel selection system?

PC World claims that you need \$5M to get your own .com brand name known. True? Illustrate your answer with examples.

What does it mean to "be an entrepreneur" on behalf of your employer?

What are some of the ways to avoid (or reduce) problems of getting access to your client for information?

What is the general lesson behind the article in Tahira's post of 3/21 entitled, Top Medical Journal Admits 19 Lapses of Ethics Policy?

What is 'evidence-based medicine,' why is it considered new, and what is the most common alternative?

What might be done about physician resistance to evidence-based medicine?

The screening test for colon cancer (which is easily treated if caught early) costs about \$1400. No insurance plan in the States will pay for this. What would be the best move(s) here?

How would you eliminate some of the tens of thousands of accidental deaths occurring in the United States every year?

How was corruption in the New York Police Department first exposed, and what are the key barriers to eliminating corruption (in the NYPD and/or LAPD)?

What is the relation between evaluation and the social sciences? [This discussion was in response to Ryan's post arguing that we are picking on the social sciences.] One of the leading personnel texts insists that all personnel selection involves developing and using a system for validly ranking the applicants, and then hiring the top one (or however many you need). What is lacking in this approach?

Why is qualitative methodology not a substitute for quantitative methodology (and vice versa)?

The Associate Dean of College X in Claremont came to see MS because he believes his college has an attrition problem. The school is losing about 30% of its students, mostly freshmen (1st years), some sophomores (2nd years). What can you as an evaluator suggest as ways to be helpful? How can you tell if the attrition rate is unreasonably high? What are the costs of student attrition?

Content: In this report, Bergman explores and discusses critically online resources for evaluators, especially with regard to evaluation-relevant information and online training courses. In addition to a thorough web-based search, he interviewed course designers, as well as former and current participants of online courses. He finds that the web contains a tremendous wealth of information and teaching tool for evaluators, varying widely in scope, content, and quality. If designed properly, this medium addresses successfully shortcomings of more conventional modes of instruction. Various sites and courses are discussed with regard to their structure and content, as are strategies to improve online instruction.

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