

An International Journal on Grey Literature



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‘USING GREY TO SUSTAIN INNOVATION’

GreyNet

The Grey Journal

An International Journal on Grey Literature

COLOPHON

Journal Editor:

Dr. Dominic J. Farace
 Grey Literature Network Service
 GreyNet, The Netherlands
journal@greynet.org
<http://www.greynet.org>

Associate Editors:

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 Beysterveld 251
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 Netherlands
 T/F +31 (0) 20 672.1217
info@textrelease.com
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About TGJ

The Grey Journal is a flagship journal for the grey literature community. It crosses continents, disciplines, and sectors both public and private. The Grey Journal not only deals with the topic of grey literature but also is itself a document type that is classified as grey literature. It is akin to other grey serial publications, such as conference proceedings, reports, working papers, etc.

The Grey Journal is geared to Colleges and Schools of Library and Information Studies, as well as, information professionals, who produce, publish, process, manage, disseminate, and use grey literature e.g. researchers, editors, librarians, documentalists, archivists, journalists, intermediaries, etc.

Grey Literature is defined as "information produced on all levels of government, academics, business and industry in electronic and print formats not controlled by commercial publishing *i.e. where publishing is not the primary activity of the producing body.*" (Luxembourg 1997; expanded in New York, 2004)

About GreyNet

The Grey Literature Network Service was founded in 1993. The goal of GreyNet is to facilitate dialog, research, and communication between persons and organizations in the field of grey literature. GreyNet further seeks to identify and distribute information on and about grey literature in networked environments. Its main activities include the International Conference Series on Grey Literature, the creation and maintenance of web-based resources, a moderated Listserv, The Grey Journal, etc.

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"USING GREY TO SUSTAIN INNOVATION"

In 1997, at the Third International Conference on Grey Literature hosted by the Commission of the European Communities, the impact of grey literature on the innovation process was the central theme. Now, almost a decade later we can look to see how grey literature has been able to sustain innovation and explore its continuing role in this process. By the term innovation we mean that which transforms ideas into commercial success or widespread use. We view innovation as an economic and social term, one that is not exclusively technological.

In this issue of The Grey Journal, Jeffery and Asserson in their article on grey literature in the R&D process confront the rapid increase in the acquisition of data, its structuring into information, and its interpretation as knowledge. Their premise is that the output of grey publications is orders of magnitude greater than white publications *i.e.* controlled by commercial publishers. Weber follows with his article on grey literature in public administration and provides an example of a quality assessment system now in place, which details quality assurance procedures to assess and steer evaluation studies resulting in quality information of practical use.

The subsequent articles deal with case studies in the diverse fields of public health, cyber security, vocational training and labor. Crowe and Hodge examine in their article the role of NGOs in public health care in developing countries and see grey repositories as tools for research communities. Erwin in her article addresses the Digital Commons defined as a set of tools and services that are available for public use. She then goes on to examine a number of larger social and political issues challenging major stakeholders including librarians in building this digital commons for cyber security resources. Finally, Pitoni and Macrì outline in their article a grey roadmap of systems and services for vocational training and labor policies within the framework of the European Social Fund (ESF).

The feature articles in this issue are select examples of how grey literature has sustained the innovation process in recent years. For those interested in learning more about the continuing role of grey literature in this process, I welcome you to GL8, the Eighth International Conference on Grey Literature, where the focus will be on the state of the art in grey literature with applications and innovative uses in and for society, science and technology.

Dominic J. Farace, Journal Editor
journal@grey.net.org

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Grey in the R&D Process *

Keith G. Jeffery (*United Kingdom*) and Anne Asserson (*Norway*)

Abstract

The rate of acquisition of data, its structuring into information and its interpretation as knowledge is increasing rapidly. There are more active researchers now than ever and the output of white publications per researcher is increasing. The output of grey publications is orders of magnitude greater. Past techniques of experts (librarians) cataloguing manually with metadata each publication do not scale. The problem is to find ways to manage this resource.

The hypothesis is in 4 parts: (a) that the R&D process itself provides some context for managing the information; (b) that linking the records of the process to the publications provides this context; (c) that questions of curation and provenance are addressed automatically in such an environment; (d) that such an environment integrates grey and white literature and other R&D outputs such as software, data, products and patents.

At UiB the emphasis of the work has been on assessment of the research output - especially publications - linked in context with records of the researchers, their organisational units, and related CRIS (Current Research Information System) information (the FRIDA system which is mostly CERIF-compatible).

At CCLRC the emphasis of the work has been on the production of an open access repository of publication outputs from the organisation (ePubs), linked to the CERIF-compatible CDR (Corporate Data Repository) CRIS and thus to other research outputs with associated metadata.

The recording of the data provides the context including the workflow of the R&D process, history and provenance. Grey documents produced as early ideas are captured in a temporal and organisational context, just as well as white publications, via the linked repository. CERIF allows, in a multidimensional framework, deduction or induction of relationships between documents - for example between a grey internal report and a white published paper - and with other research outputs. Furthermore, relationships between documents can be expressed explicitly: references and / or citations can be recorded. In this way a rich context for understanding the R&D output is provided, including versions, history and provenance.

Recording facts once in a structured R&D process environment and then re-using them in many ways reduces - by automated provision assistance - the need for user input of metadata to describe research outputs (especially grey literature) and thus addresses the scalability problem.

Project Costs

The costs including all staff, overheads, equipment, software etc for CCLRC are as follows:

(a) Development of the CDR (Corporate Data Repository CERIF-compatible): (i) Pilot phase: 30kEUR; (ii) Production phase (~ 1 year): 80kEUR; (iii) Annual maintenance including integration with the ePubs system and with our workflow environment: 30kEUR

(b) Development of the ePubs Open Access Institutional Repository: (i) 80kEUR (~ 1 year); (ii) Annual maintenance including integration with CDR 50kEUR

We are now (with integrating CDR, ePubs and workflow) developing re-engineered business processes: this programme of work is estimated at ~ 300kEUR per year for 2 years and relies on CDR and ePubs. We believe the benefits in improved effectiveness and efficiency will run at ~ 4mEUR per year.

The costs for the University of Bergen are as follows: The total cost of developing our national system Frida is 2.250.000 NOK for the 4 universities and the cost of UiB (only for developing) is approx 500.000 NOK.

* First published in the GL7 Conference Proceedings, January 2006

Background

The Problem

Research outputs – publications, patents, products – are produced by research activities or projects. The volume is increasing rapidly, partly due to the 'publish or perish' paradigm. Researchers are under increasing pressure to produce outputs, and to record them. The metadata describing the research outputs, and the source materials themselves, may not be adequately recorded. There are three major problems:

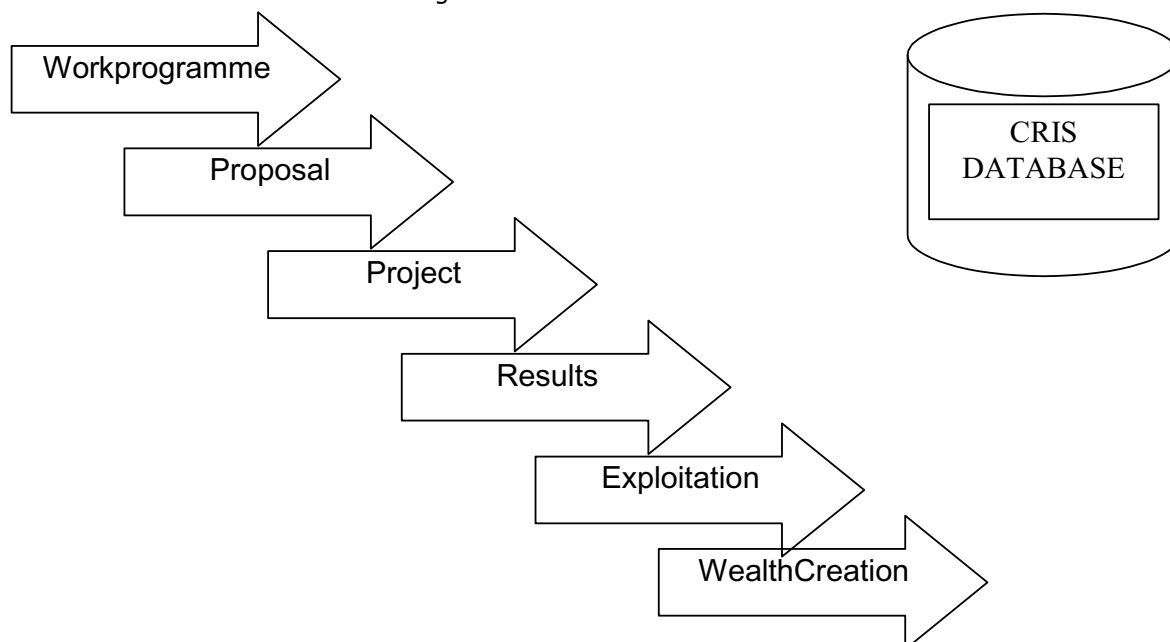
1. the information is difficult to collect, partly because the end-user interface to available systems presents a formidable threshold barrier;
2. the end-user commonly works in an environment that is not well-structured and so the tasks to record the research output information (usually the metadata including a URL to the source material) are not done, or done without sufficient attention, or simply forgotten;
3. commonly the information is available progressively; e.g. as a publication is submitted, accepted and published. At each stage metadata are available and should be recorded. Without a structured environment for the progressive collection of data the request for information input consists of a demand for a large amount of information – rather than building progressively the metadata corpus using small incremental data input steps – and this demand for a large amount of information is inhibiting to the end-user.

The aim of this paper is to address those problems.

The Research Process

The research process, considered in overview, is the set of steps – with alternatives and conditions, and some steps omitted or repeated – that produces research outputs such as publications, patents or products. The overall process can be represented (Figure 1):

Figure 1: The Research Process



It should be noted that the metadata describing the research outputs (and indeed appropriate information collected at each step of the research process such as project title, project abstract, person(s) doing the research, organizational unit(s) of the persons etc.) are stored in a CRIS (Current Research Information System). The EC (European Commission) standard for recording research information recommended to member states is CERIF (CERIF). The advantages of relating output publications (and other outputs) to a CERIF-CRIS have been demonstrated (Jeffery and Asserson 2004)

and concern mainly the value of contextual information in understanding the research publication and the maintenance of integrity and data quality. As an aside, the requirement for formalised metadata to describe research output publications thus allowing machine-understanding in addition to machine-reading was demonstrated (Jeffery 1999). Formalised publication metadata within or associated with the formalised CERIF structure of a CRIS provides an information environment suitable for precise querying, improved constraint checking at data input and knowledge-based techniques to resolve heterogeneity and to provide end-user assistance. The knowledge-based techniques of deduction and induction can also be applied (Jeffery and Asserson 2004).

The Research Process and Grey Literature

Grey literature is an important research output. Commonly grey literature forms the documented 'know-how' of an organisation and may also be shared with partner organizations or persons. Grey literature commonly is stored in a repository, more particularly an institutional repository which may have open access if the organisation perceives business benefit (including public relations benefit) from making the material openly and freely available. The metadata describing the grey literature may be stored in the CRIS or in the repository or both; the source material (the grey literature publication) is stored only in the repository. Thus, the collection of metadata concerning the grey literature publication should be progressive in the research process and – being linked with the CERIF-CRIS – be associated with contextual data about the research.

The Hypothesis

The major hypothesis of this paper is that: (a) that the R&D process itself provides some context for managing the information; (b) that linking the records of the process to the publications provides this context; (c) that questions of curation and provenance are addressed automatically in such an environment; (d) that such an environment integrates grey and white literature and other R&D outputs such as software, data, products and patents.

Research Process, Publications and Context

The Process

The process was presented above in overview. It is clear that, knowing that a particular publication has been produced from a research project and submitted for publication, that the CERIF-CRIS provides additional contextual information adding value to the metadata concerning the publication – for example the purpose of the research, the persons in the team, the organizational units (universities, departments, groups) involved, the facilities used, the particular equipment utilized etc.

Furthermore, at the time of publication submission all this information should have been collected incrementally at previous steps in the research process so the burden on the researcher to input information at the time of submission is lessened considerably. The relevant information at any one time period (present or past) is easily determined because CERIF includes linking relations with role and date/time stamps linking the base entities (Jeffery 1999) so that a snapshot of database state at any time can be obtained. This is particularly helpful in tracking provenance and in data curation.

Here, each step of the research process is considered in turn with the (meta)data that is collected and the input information that is required for the step to be executed.

Research Process Steps

The major outputs and inputs at each step can be represented in the table, below:

PROCESS STEP	SUB-PROCESSES	INPUT	OUTPUT
Workprogramme	Economic, Societal, Technology Foresight	World/Country state, world/country models, technology predictions, solicited advice	ProgrammeName Funding OrgUnit Person responsible Workprogramme document
Proposal	Idea, review previous work, Objectives, Method, Resources and Dependencies	Previous results, previous projects, finance, human resources	Title Abstract Person(s) OrgUnit(s) Proposal Document
Project	Project management	Previous results, previous projects, finance, human resources	Title Abstract Person(s) OrgUnit(s) Funding Project Plan
Results	Initial result, internal review, peer review, registration or publication	Previous results	Person(s) OrgUnit(s) Project(s) Product(s) Product Description (e,g, publication reference metadata)
Exploitation	Results, business plan, finance, marketing, production, selling	Marketing information, economic information	Person(s) OrgUnit(s) Business plan Finance Data Marketing Data Production Data Sales Data
Wealth Creation	Marketing, employment, production	Marketing information, economic information	Person(s) OrgUnit(s) Annual Reports/Accounts Employment Records Dividends Records

From the above it is obvious that much (meta)data required in later steps can – and should – be recorded in earlier steps.

Research Output Publications

Research output consists of publications, patents and products. Here we consider only publications. The metadata required was defined (Jeffery 1999; Jeffery and Asserson 2004). However, in addition, for published (white) literature the full reference metadata is required. This includes author names as they appear in the publication (as well as the usual title, abstract), but also – for the channel of publication – the name, series, volume, part, ISSN or other identifier, pages within the bound publication containing the publication of the author(s) and other relevant information that can be (re)structured into Vancouver, APA or other formats.

It is clear that some of the metadata required is available at the time the publication is drafted: title, abstract, authors. More metadata is added through internal review: a URL to location in an institutional repository, linkages to the research context (using a CERIF-CRIS) and annotations by reviewers. Again, further metadata is added when it is submitted for external publication via peer review: publication channel name. Finally, when published, the full metadata can be completed – but most of the input is already done and only the publication channel details need to be added.

Grey Literature

The process for grey literature is little different. The early sub-process steps are the same, including usually internal review. However, the changes come in the later sub-process steps since there is no external peer-reviewed publication channel. However, it is common for an internally reviewed grey literature publication to become (possibly with modifications) an externally peer-reviewed white publication. CERIF-CRIS provides the means to record this using the linking relation publication-publication with role and date/timestamps.

The experiences at CCLRC and UIB

At UiB, there has been an historical development, from FORSKDOK – an information retrieval system using semi-structured simple research data - through FDOK – a CERIF-based system developed at UiB - which created the national demand for FRIDA (FRIDA) – a system developed at University of Oslo but used by 4 universities and with a steering committee and project group representing them. FRIDA is essentially CERIF-compatible but concentrates on entities persons, organisational units and publications and the entity project is being implemented. The representation of publications required extensions over the CERIF2000 model but these extensions are now being incorporated into CERIF2005.

The use of FRIDA allows each university to quantify its white research output in a form suitable for the funding ministry and thus assures appropriate funding allocations. However, in addition each university now has a consistent record of its intellectual property including grey literature, the importance of which is being realized progressively. FRIDA acts as a hub; from each university personnel system data are imported into it. To ensure completeness and to overcome the threshold barrier of metadata input, records are imported from the Thomson ISI system and the national library bibliographic system, BIBSYS (BIBSYS). FRIDA is providing a component to link to the institutional OA repositories of the four universities providing access to full-text or hypermedia representations of the research output.

At CCLRC, the CRIS (named the CDR: Corporate Data Repository) has several functions:

- it links together many other systems including those managing finance, human resources, projects and e-documents among many;
- it links to the open access institutional repository containing metadata (and in many cases also the source material) for CCLRC publications – both grey and white literature;
- it links to portals managing access to research datasets (with their own metadata) and is being extended to link to open source software for research;
- it provides the repository record and source data to drive the workflow-supported business processes of the organization including research processes such as research proposal submission and publication submission and management or administrative processes such as travel claim management or authorising leave.

Its central role is evident; it provides the hub for interoperation and linkage making replacement of other systems and system components relatively easy and allowing development and evolution in line with the CCLRC business requirements. It allows recording of the information related to the research process. It also provides the central mechanism for curation of CCLRC information.

The Way Forward

The GRIDs environment (Jeffery 2001, 2004, 2004a) provides an infrastructure to benefit greatly the research process. The major concept – distinguishing GRIDs from the GRID (Foster & Kesselman 1999) is that the user interacts intelligently with the GRIDs environment to determine the request and the GRIDs environment then proposes a 'deal'; composing the necessary resources of computation, networking, data stores, information provision, detector-based additional data collection, appropriate software for analysis and visualization and ambient intelligence as necessary for the results to reach the end-user on her device of choice. The user accepts or rejects the proposed 'deal'; if accepting the GRIDs environment then executes the request. This level of virtualization of all the resources required frees the researcher from tedious work finding the data, interpreting it as information, running computer models, executing statistical analyses, generation visualizations, collecting more data etc etc – in order to leave the researcher free to think and do research. Of course these same virtualization virtues have equal benefits in a commercial business or industrial environment, in healthcare, in environmental management and in the humanities.

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(OAI) www.openarchives.org

(W3C) www.w3.org

Grey Literature in Public Administration – An Example of a Specific Quality Assessment System*

Markus Weber (Switzerland)

Abstract

In "evidence based public health" policy makers and practitioners try to make decisions on the basis of evidence (e.g. gathered through systematic reviews). The experience made by others is taken into account: What health promotion and prevention measures have worked elsewhere?

In this current discussion about "evidence" of effectiveness in health promotion and prevention, there is a call for including knowledge about the management processes and context of intervention implementation. Evaluation traditionally takes these aspects into account in judging the value and effectiveness of interventions. But evaluation reports, being grey literature, are not often integrated into the evidence building process as they do not match the quality criteria of "published" research,. However, we argue that this does not necessarily mean that their scientific quality is inferior.

This paper looks at a specific system of quality assurance and assessment procedures for managing evaluation studies as a basis for the discussion on how to broaden the concept of "evidence" to include information gathered through evaluation studies.

The Competence Centre for Evaluation (CCE) of the Swiss Federal Office of Public Health (FOPH) commissions external evaluation studies of public health interventions. By introducing and using a quality assurance system the CCE wants to achieve two main objectives. Firstly, the evaluation studies need to be of sound scientific quality. Secondly, they need to be useful and practicable, i.e. they need to produce conclusions that can be understood by the target group of the study and recommendations that can be implemented. The two main tools for assessing the quality of a report are described as well as how they are embedded within a wider quality assurance system, that organises the process in a lean, focused and time-saving manner.

Our meta-evaluations (evaluation of the evaluation) take into account the Evaluation Standards of the Swiss Evaluation Society (standards of good practice for conducting evaluations, www.seval.ch). Four quality dimensions of an evaluation are mentioned: Propriety, Accuracy, Utility and Feasibility (each with 3 to 10 standards). They refer to the process as well as the product of an evaluation (the report).

Wider scope for the discussion: In addition to including "quality assured" evaluations, which other "grey" material could/should we include as "evidence" of effectiveness (e.g. policy papers, guidelines, good practices papers, expert opinion etc.)? Such grey literature provides a lot of information on implementation processes, management and context, which is important for understanding about why and how interventions are "effective". What kind of criteria could be developed to assess such knowledge? Or do they already exist? Could/Should this type of evidence be graded according to classical concepts of "rating evidence"?

1. Introduction

In "evidence based public health" policy makers and practitioners try to make decisions on the basis of evidence. The experience made by others is taken into account: What health promotion and prevention measures have worked elsewhere with good results? Traditionally, evidence on "effectiveness" is usually only discussed in terms of "what works" and the evidence is developed from peer-reviewed, published research only. Systematic reviews of published research that are conducted according to strict criteria, are the golden standard.

Current debate suggests that the notion of „evidence“ (of effectiveness) in health promotion and prevention interventions needs to be broader than "results" only, and especially not only those based on the RCT 'gold standard' (randomized controlled trials)¹. In essence, there is a call for including knowledge about implementation and management processes, as well as the context of interventions.

Evaluation traditionally takes such issues into account when judging the value and effectiveness of specific interventions. But evaluation reports are not taken into

* First published in the GL7 Conference Proceedings, January 2006

account in the traditional evidence building process: as “grey literature” they do not meet the traditional “evidence” inclusion criteria, even if their methodology is of high quality. In the first place we have to assure that evaluations do in fact meet scientific quality criteria. This paper presents the quality control measures used by the Competence Centre for Evaluation (CCE) of the Swiss Federal Office of Public Health (FOPH) towards this end.

The CCE is responsible for commissioning and managing all the FOPH’s external evaluations of public health measures - mostly of health promotion and prevention programmes and projects². It is an internal service that, on the one side, has to assure the scientific quality, ethical conduct and trustworthiness and, on the other, the usefulness of its evaluation studies. Studies are mandated to external, neutral private and university research institutes.

Whilst the CCE’s experience is concerned with evaluations of health promotion and prevention measures, I am sure that much of it holds true for research and grey literature in general; knowledge gathered must be useful, and practically oriented.

The paper is structured as follows: In section 2, I try to explain the principles and background of our quality assurance system as well as those of the Swiss Evaluation Society’s (SEVAL) Evaluation Standards. In the discussion (section 3) I refer back to the “evidence” discussion.

2. The CCE’s quality assurance system

2.1. Objectives

By introducing and using a quality assurance system we want to achieve two main objectives. Firstly, we need to assure that the studies are conducted according to **sound scientific and ethical standards**. Secondly, the products of these studies need to be **useful and practicable**, i.e. the studies need to produce conclusions that can be understood by the target group of the study and recommendations that can be implemented.

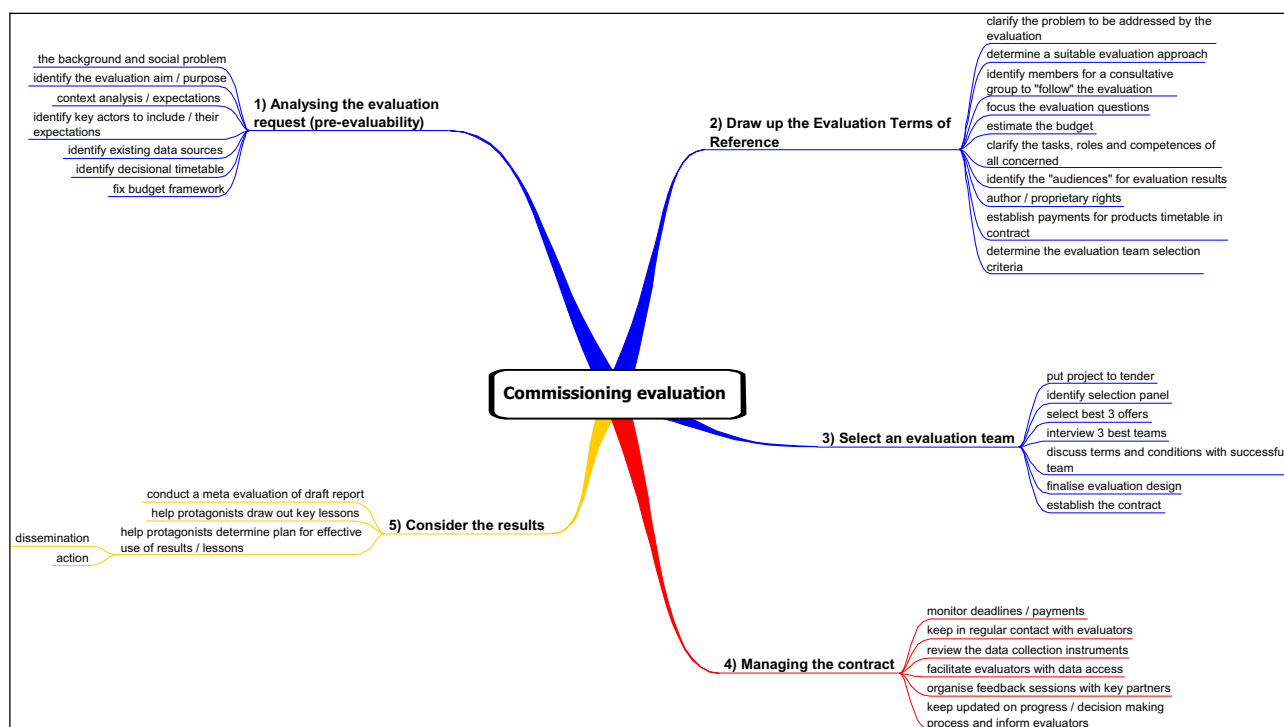
Scientific quality is a necessary but not sufficient condition for successful evaluation studies. How can we get evaluation reports that first of all trigger implementation and learning processes in the area evaluated, but also beyond in other areas? We need reports that allow for easy understanding and utilisation by politicians, civil servants, practitioners in the field (medical doctors, social workers, prevention specialists, etc) and the research community. In other words, information about management and processes of the interventions has to be included in the analysis and reporting.

2.2. Description

Assessing the first draft of a final evaluation report is one of the last steps in a comprehensive package of quality assurance procedures used by the CCE to assure quality. It would not be very sensible to just come in at the end of a study and judge the quality of a report; rather it has to be steered from the beginning. We have standardised processes, guidelines, models and checklists that are used to guide the process from A to Z, i.e. from the first request for a study to actual commissioning, accompanying the study throughout, assessing the report (meta evaluation) and discussing and supporting a work plan for the utilisation/implementation of the study results.

The quality processes and ethical conduct of the evaluation study as well as the quality of stakeholder involvement are the main pillars of quality assurance: the final report is the “output” of such. It has to include not only evaluation findings, conclusions and recommendations, but equally a description of the processes involved to arrive at such results. Figure 1 shows the 5 main steps of the evaluation process from a commissioner’s point of view, as well as the many sub tasks that have to be considered within each step. Many of these are supported by CCE checklists, models, etc.

Figure 1: 5 Steps of commissioning an evaluation



We clarify and repeat several times throughout the commissioning process exactly what we want and how we will assess it. All the relevant information about the object to be evaluated, the questions to be asked etc. are described in the Evaluation's Terms of Reference that is used to "Call for Tenders". And everything is again clarified in the contracts, kick-off meetings and other discussions between the external evaluators and the CCE.

This system has been successfully used for several years (FOPH 1997, Läubli Loud 2004) and more recently was adjusted to take into account the SEVAL (quality) Evaluation Standards (Widmer et al. 2000³) which are described below.

However, the CCE's quality assurance system is giving us only the formal structures (procedures and tools) which should support quality. In order to be really successful it has to be embedded in a so called "evaluation culture", both within the organisation and within the evaluator community. All people involved have to share a common understanding of evaluation, of what it is, of what it can do and of what it cannot do. The development and approval of the evaluation standards by the Swiss Evaluation Society (SEVAL), the integration of this topic into conferences, basic and continuing education, and the existence and utilisation of similar tools can be seen as indicators for the rise of such an "evaluation culture"⁴.

Broken down to the level of an individual evaluation study, this means that the (external) evaluators have to know what we expect (and we have to know what we can expect) and they have to be able to do it.

In the following paragraphs, I first introduce the SEVAL Standards, then explain how they are integrated into two specific tools developed and used by the CCE for (a) assessing a first draft of a final evaluation report and (b) for feeding these comments back to the authors, followed by some comments on how the product of these efforts can be characterised.

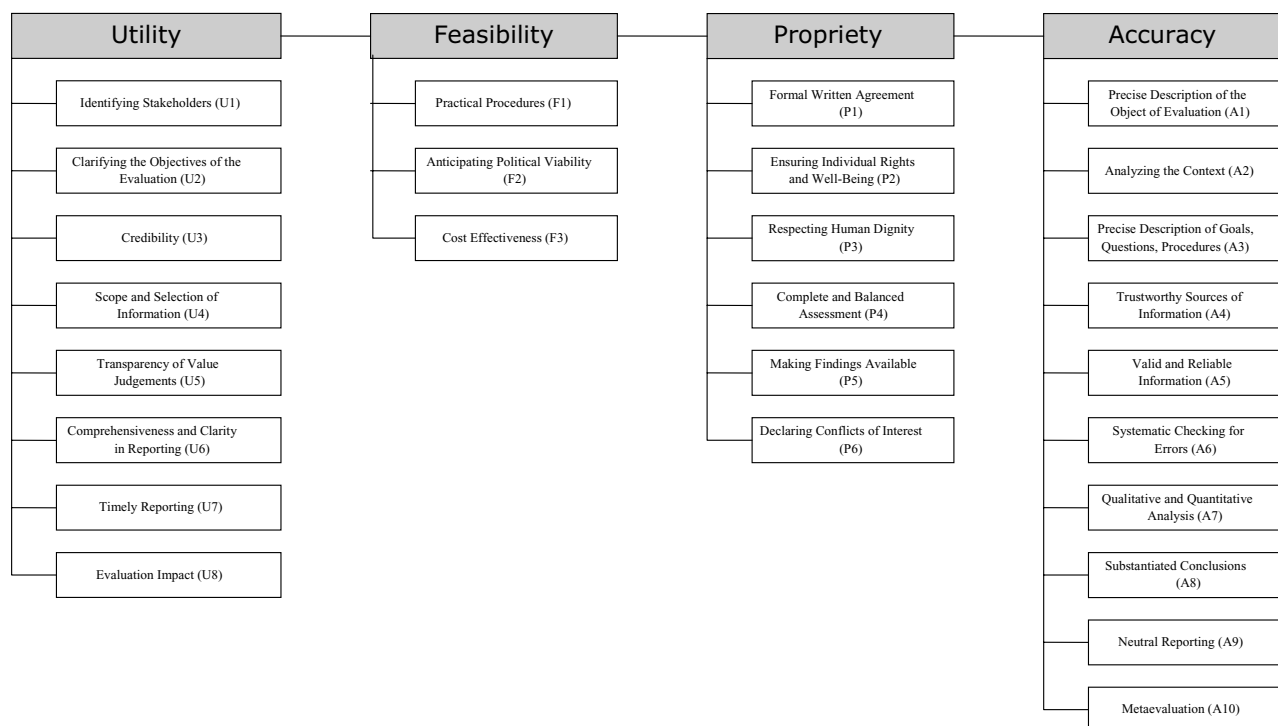
2.2.1. The SEVAL Standards

The SEVAL Standards are standards of good practices for conducting evaluations. They refer to the process as well as the product of an evaluation. The 27 standards are grouped into four quality dimensions: Utility, Feasibility, Propriety and Accuracy (cf. Figure 2). The objective of each dimension is as follows (Widmer 2005):

- The **8 Utility standards (U)** guarantee that an evaluation is oriented to the information needs of the intended users of the evaluation
- The **3 Feasibility standards (F)** ensure that an evaluation is conducted in a realistic, well-considered, diplomatic and cost-conscious manner
- The **6 Propriety standards (P)** ensure that an evaluation is carried out in a legal and ethical manner and that the welfare of the stakeholders is given due attention

- The **10 Accuracy standards (A)** ensure that an evaluation produces and disseminates valid and usable information

Figure 2: The 27 standards ordered by the 4 quality dimensions (adapted from Widmer n.y.p.)



The SEVAL Standards define the demands placed on an evaluation but do not specify the instruments to be used. Overall, they share the same concerns and objectives as those defined by the CCE: Sound scientific quality and ethical conduct (especially through the accuracy and propriety standards) and production of practical knowledge (utility and feasibility standards). The standards are categorised according to the quality dimensions. But they are not all equally relevant to every evaluation (e.g. subject to which methodology was applied) and certainly not to every phase of an evaluation (from initial planning to utilisation). Those who use the SEVAL Standards need to relate them to their specific evaluation needs and develop their own tools accordingly. General guidelines and checklists based on the SEVAL Standards are currently under development. The target audience is evaluation commissioners within the Swiss federal administration (Widmer 2005., in German and French). The CCE has long before developed tools which are based on the SEVAL Standards. In practice, they are not much different from each other, but our tools have been developed earlier on the basis of our experience and are precisely adapted to our needs. CCE team members were also involved in the development of both the SEVAL Evaluation Standards as well as the guidelines and checklists under development.

2.2.2. Two tools for assessing an evaluation (process and output/report)

The evaluation report is the document that sets out how the evaluation was conducted, how the data was analysed to arrive at which conclusions, etc. This means that the assessment of the report is at the same time the assessment of the whole evaluation process. CCE conducts a meta evaluation of both the written report and the evaluation process; having managed the contract throughout, it is regularly informed about how the evaluation was conducted. Under meta evaluation we understand the scientific and ethical quality control of an evaluation (cf. FOPH 2005).

For assessing the quality of a first draft of an evaluation report we use a tool in the form of a checklist. The checklist assesses whether SEVAL Standards have been followed fully, partly or not at all. (or not applicable as the case may be). As mentioned before, not all standards are equally relevant at this stage and for every evaluation. So reviewers need to weigh them accordingly. Reviewers are also asked

for general comments on strengths and weaknesses of the report, on the feasibility of the conclusions and on general operational, strategic and political lessons that can be learned from this study.

Every report is reviewed by at least two of our team members (we are 6 social scientists). For certain cases, external experts are asked to review the report as well.

The ratings and comments are then "translated" onto the second tool that we use at this stage. It is a form used to provide synthesised feedback to the authors/evaluators about how we rate the quality of their work and what we would like them to change. The form refers to the SEVAL Evaluation standards and the CCE's comments in relation to such. For example:

Positive: The underlying reasoning and points of view upon which an interpretation of evaluation results rests are described in such a manner that the bases for the value judgments are clear. (As given in the U5 standard: Transparency of Value Judgments)

Negative: The underlying reasoning and points of view upon which your interpretation of the evaluation results rests are not always clearly described. The basis of your value judgments is not transparent enough. E.g. page 23 ...

Based on assessments per individual criteria, the CCE concludes with an appreciation about the overall quality (excellent, very good, good, etc.). (Detailed feedback about unclear formulation, grammatical or typing errors and other comments on specific paragraphs in the draft report etc. are also provided.). The meta evaluation is returned to the evaluators together with a timetable for completion (production of the revised report, the executive summary and/or other products e.g. oral presentations to stakeholders, etc.).

2.3. Products

These procedures and tools help us to achieve our two main objectives (sound scientific quality and production of useful and used knowledge). Scientific quality and professional ethical conduct is assessed through a strict review of the final product (evaluation report) - the last of the quality assurance procedures. However, the CCE also uses its own checklist to regularly monitor the evaluation process throughout. The production of useful, practical and used knowledge is supported by a comprehensive quality assurance system from start to end (to include the interpretation of the results and their transfer into action).

Generally speaking the evaluation products (executive summary, full technical report, vulgarised version, etc.) are put on the internet for public access. Their being "Grey Literature" therefore has several advantages: easy access, quick access and utilisation by main target group (area being evaluated) and others, adaptability, etc.

The orders for the printed version our guidelines (FOPH 1997) and the access statistics to our internet site, show that we get many requests, from a lot of different fields and countries, from universities, other public administrations and from private companies and other people.

3. Discussion and Conclusions

The system described in this paper may seem very comprehensive and needing a lot of human resources. Being quite time consuming in its development it is making live easier for us now and recently allowed to compensate for human resource cuts of almost 50%. In the last restructuring of our institution we got additional tasks to be done with equal resources.

By using these quality assurance procedures we want to assess and steer evaluation studies towards producing quality information of practical use. The Swiss Federal Office of Public Health is mentioned in several international and national studies as a good and successful example of how to handle evaluation in public administration (Jacob and Varone 2002, Fornerod 2001, Widmer et al. 2001).

Moreover, our evaluations discuss "effectiveness" in relation to the processes and procedures used to implement the intervention as well as the key contextual influences. They therefore provide useful "evidence" about not only "what", but also why, how and for whom the intervention is considered "effective". Nevertheless, as "grey literature" the products of our commissioned evaluations would not be used in developing "evidence".

Traditionally, evidence on "effectiveness" is usually only discussed in terms of "what works" and the evidence is developed from peer-reviewed, published research only. Systematic reviews of published research that are conducted according to strict

criteria, are the golden standard. But such "evidence" gives us little insight into which conditions best support interventions, particularly those that are multi faceted and implemented at multi levels within the community. As Saan (2005: 7) put it, literature reviews should include knowledge about "a) what works b) how it works and c) under what conditions".

Another disadvantage of the "traditional" approach used in systematic reviews lies in the fact that "studies are selected on the basis of their research quality, and not of the quality (and practicability), of the health promotion interventions" (Aro et al. 2005: 12). In other words, a broader understanding of evidence is needed, which in turn requires a broader scope of data. Most of such data is not available in published research, but in the "grey literature" such as policy papers, guidelines, 'models of good practices', expert opinions, etc. This type of data should be integrated into the systematic review process. (Molleman/Bouwens 2005: 8 and Aro et al. 2005: 12).

But is the quality of such data of high enough standard to be included as 'scientific evidence'? Quality criteria and protocols that go beyond the published research area are very much in their infancy at the moment (Aro et al. 2005: 13).

We have presented the CCE's means of trying to assure good scientific, ethical and useful quality evaluations - our quality assurance systems and standards. Yet the comprehensive information provided in such evaluations is not necessarily published in scientific journals - it therefore remains outside the boundaries of data used to constitute scientific evidence. **Should this be the case? And if not, how would we rate/grade the information provided? Could, or indeed should such information be "rated" according to classical concepts of "rating evidence" - according to which criteria? Are existing criteria appropriate?**

Deciding what else could/should be classified as "good" evidence in an attempt to build bridges between the "quality of research" and the "quality of interventions" could have consequences on the acceptance of health promotion as a whole. The evidence on the effectiveness of health promotion and prevention interventions is often debated and remains controversial. The inability of health promotion to always demonstrate "effectiveness" evidence by means of the established methodology could well weaken its status within the health system and indeed with policy-makers who often take the (wrongly) held position, that a lack of evidence of effectiveness equates to evidence of no effect (Speller et al. 2005).

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Notes

¹ A good overview on this debate can be found in Promotion & Education (2005) and some basic issues in Nutley et al. (2003).

² A description of the CCE (history, role, etc.) and published tools and reports can be found on www.health-evaluation.admin.ch and Läubli Loud (2004).

³ Approved in 2001 by the Swiss Evaluation Society SEVAL, www.seval.ch

⁴ A more detailed description on the background of an "evaluation culture" and on the current status quo of its development in Switzerland can be found in Läubli Loud (2004)



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Grey Lit Repositories: Tools for NGOs Involved in Public Health Activities in Developing Countries *

June Crowe and Gail Hodge (*United States*)

Abstract

Information International Associates, Inc. (IIa), a woman-owned, small business specializing in information management, performs open source research for government and commercial clients. IIa's Open Source Research Division has researched over 70 studies of public health capabilities for developing countries and regions. The information needed to complete the studies covers a range of health system topics that include statistics for health personnel, health infrastructures, disaster preparedness, health financing, and other factors that impact public health care. In our experience, the search for global public health information can be both complex and frustrating. Although this information is considered "open source" in many countries, it may be difficult to obtain, especially if governmental web sites are not readily accessible or function only intermittently. In addition, the health information available from the sites may be out of date. Some less developed countries have experienced catastrophic events that impact access to public health information. Such events include political instability, natural disasters, civil strife, or other events that overwhelm the existing medical system, resulting in incomplete, inaccurate, or delayed information. Therefore, it is important to consult various resources for global public health information, including the grey literature published by nongovernmental organizations (NGOs) to verify in-country sources. Also, in countries such as Nigeria and Turkmenistan, the government manipulates the healthcare news and statistics, presenting a very different picture from the reality. Some of these countries do not welcome international (UN) and other NGOs, so it is difficult to verify information to get a clear picture of the real situation.

NGOs are one of the primary sources of grey literature used for researching healthcare information for developing countries. This literature includes field notes and surveys, newsletters, annual reports, images, maps, etc. In this publication we describe the role of NGOs in global public health, discuss the problem with NGO grey literature, and describe a possible solution based on the repository concept.

I. Role of NGOs in Public Health Care

NGOs play an important role in global health activities and health research. It is difficult to quantify the number of such organizations. There were 43,500 development organizations listed in the 2005 edition of the Directory of Development Organizations.¹ According to the World Health Organization (WHO), 70-95% of health services in emergency situations are delivered by NGOs.² The work of many NGOs overlaps, making it difficult to discern those that have a primary focus on health. For instance, NGOs with a focus on sustainable development may also be concerned with poverty, education, and health. In Ecuador, Fundacion FEVI, for example, is a non-profit NGO that facilitates intercultural education and volunteer community service and arranges community service visits from people all over the world to small communities in Ecuador. They work with healthcare centers, in addition to centers for the elderly, women's organizations, indigenous communications, human rights organizations, and public schools.³

NGOs play key roles in the health systems of developing countries and are recognized for developing innovative initiatives and programs that address health issues. They possess extensive knowledge of local conditions and can provide baseline data on health infrastructure, personnel, and major obstacles to improvement. NGOs are often able to reach segments of rural populations that governments neglect or do not target as a priority.⁴

NGOs have roles in public health from the grass roots level to the national and international levels. The WHO has created the following table depicting the health system functions and examples of roles of civil society organizations (CSO)—a type of NGO.⁵

* First published in the GL7 Conference Proceedings, January 2006

Health System Function	Examples of Roles of CSOs
Health services	Service provision; facilitating community interactions with services; distributing health resources such as condoms, bed nets, or cement for toilets; and building health worker moral and support.
Health promotion and information exchange	Obtaining and disseminating health information; building informed public choice on health; implementing and using health research; helping to shift social attitudes; and mobilizing and organizing for health.
Policy setting	Representing public and community interests in policy; promoting equity and pro-poor policies; negotiating public health standards and approaches; building policy consensus, disseminating policy positions ; and enhancing public support for policies.
Resource mobilization and allocation	Financing health services; raising community preferences in resource allocation; mobilizing and organizing community co-financing of services; promoting pro-poor and equity concerns in resource allocation; and building public accountability and transparency in raising, allocating, and managing resources.
Monitoring quality of care and responsiveness	Monitoring responsiveness and quality of health services; giving voice to marginalized groups , promoting equity; representing patient rights in quality of care issues; and channeling and negotiating patient complaints and claims .

Some of these roles already involve research and information dissemination as indicated by the highlighting of those functions in the table above. Although NGOs promote and advocate for public health, as well as perform other functions in the health systems, there is a need to more effectively include NGOs in the knowledge production and diffusion of public health information in developing countries and to better manage the knowledge output.

These goals can be accomplished through dedicated partnerships with appropriate organizations and agencies. The roles above could easily be expanded to give NGOs increased roles in health knowledge diffusion because these organizations are "on the ground" and they know what is happening firsthand. Researchers who need access to current information would welcome ready access to grey literature sources such as to NGO reports, online newsletters, field reports, blogs or wikis generated by these NGOs.

Persistent access to documents published by organizations/agencies involved in health activities in less developed countries is crucial to anyone doing research in public health. For example, since this paper was written in December 2005, one of the urls has disappeared. Another example of how quickly access vaporizes can be illustrated by a 2003 country study we updated in 2006; we found that 54% of the urls were no longer active, 3% had changed, and 4% had been re-directed or moved, leaving only 39% active. For studies completed in 2000, we found that 62% of the urls were dead, 8% had moved or had been re-directed, and only 30% were active. We have also found that within the span of a week some urls will have disappeared. A repository could help solve some of the problem of link rot by preserving a cache copy of the page at the time the document was submitted.

II. Repository Definition

Given the importance of NGO information and the problems associated with accessing this information, what could be done to improve the situation? A repository is one possible solution for consolidating the location of NGO public health information, particularly reports and studies. What is a repository? A repository is a digital collection that captures and preserves the intellectual output of an institution, agency, or organization. The development of repositories has principally been used by universities to collect and manage the output of students and faculty; however, repositories could easily be developed and used by NGOs.

Benefits of a Repository:

The benefits to researchers of having one or several repositories for locating and accessing this grey literature are fairly obvious. Significant time would be saved, and there would be more assurance that information would be updated and preserved over time. However, there are additional benefits beyond the traditional functions, such as data collection, capacity building, and knowledge management.

Data Collection and Coordination:

An NGO repository would facilitate the identification of public health problem areas, data collection, and problem solving for decision makers. In addition to making health information about these areas more accessible to researchers and decision makers, use of the repositories could facilitate coordination among NGOs and others who want to provide assistance to these countries. A repository could be useful in identifying NGOs that have had experience in certain areas by preserving a record of the NGOs' work, making it easier to discern where resources would best be used.

Building Health Capacity in Developing Countries:

Repositories could serve as a mechanism for building health capacity knowledge and diffusion in developing countries. For example, a repository could be the mechanism for introducing new perspectives or technical expertise, and a way to capture a snapshot of what is happening with disease control, vaccinations, health education, etc. A repository may also broaden the market for such publications and research results. In a recent article on open access archiving, Leslie Chan pointed out that scientific progress is greatly hampered in developing countries by their inability to have access to essential medical literature.⁶ A repository of NGO reports and documents could centralize access to global NGO health-related documents, particularly those documents from other developing countries that are most relevant to the public health, social, and technical situations of a developing country.

Knowledge Management Tool:

There are direct benefits to NGOs. NGOs that publish many reports and documents would benefit from a repository to support content and knowledge management activities. The management of information about research and projects already conducted can support the re-purposing of that information to enhance development, marketing, and outreach efforts, as well as the creation of future funding proposals. For example, several years ago IIA helped Conservation International, an international environmental NGO, identify ways in which it could better capture and manage the knowledge created by its individual projects and principal investigators in environmental hot-spots across the globe. Development of Conservation International's system continues to this day via implementation of a content management system for creating, disseminating, locating, and re-purposing its web site content. Similar approaches would be reasonable for large public health NGOs.

A repository is a major component of an information asset management system that would manage and support every aspect of information, creation, and dissemination. Information asset management provides the ability for people to get whatever information they need, anywhere, anytime, and in compliance with the organization's policy. As part of this function, a repository would enable the NGO to identify best practices, focus on key projects and their stakeholders, and seek partnering opportunities.

III. Barriers/Challenges to Repository Development

Due to insufficient funds earmarked for health programs in developing countries, inefficient application of resources, and the lack of technology transfer, there are many obstacles to the development and use of such a repository or series of repositories. Start-up costs for introducing and managing repositories vary widely from \$8,000 to \$1,800,000. For instance, DSpace at MIT is estimated to cost \$285K annually.⁷ For purposes of this publication, three barriers/challenges are highlighted – organizational structure and politics, funding, and collection development policies.

Organizational Structure and Politics:

A key challenge in establishing a repository for NGOs is the diversity of organizational structures that includes confederations, federations, separate and independent organizations, and variations of these.⁸ With these structures, the challenge is to create a model that will facilitate the transfer/capture of documents since some NGOs do not work together due to political or philosophical differences.

Funding:

NGOs may be funded by foundations, religious organizations, special interest groups, governments, international or national organizations, or any number of other methods. Their respective funding sources may impact the types and accessibility of reports or other information published. Insufficient funds, of course, may mean little or no publicly accessible information and/or the lack of a publications program. NGO funding sources can also impact the willingness to share information because of political or other reasons.

In 2003, the WHO examined the funding sources of NGOs with whom they had official relationships. The majority of NGO funding (41%) came from admission fees and member dues. The next largest funding source was from unspecified grants (21%). The remainder of the funding came from other fund raising (12%); NGO grants (4%); company funding grants (3%); government and inter-governmental grants (4%); congress [conference] and publication fees (9%); and government contracts and consultancy fees (6%).⁹ It should be noted that there are more NGOs that have unofficial relationships with the WHO that are not reported in these statistics. As civil societies have continued to increase in number, funding has increasingly come from governments (approximately USD 1 billion) and other non-governmental agencies (about USD 1 billion) annually.¹⁰

The funding source impacts how and what information an NGO releases and distributes, as well as its fiscal ability to create reports for release. For example, a faith-based NGO may choose not to report on contraceptive needs or abortions, although they may have this information. Also, funding can determine which NGOs support what efforts in what countries. If several NGOs with a similar purpose, such as HIV/AIDS prevention, obtain funding from a single source, the probability of obtaining their documents for a repository is greater than if they were funded by a variety of sources, because it would perhaps eliminate some of the constraints on releasing material to the public.

Collection Development Policy:

Given the issues outlined above, it may be impossible and perhaps not even desirable to collect all NGO documents in a single collection. Miriam Drake coined the following eight "C" words that are necessary for building a successful repository: comprehension, collaboration, context, change, caring, commitment, creativity and competence. In addition to these, she also stated that some of the key issues to consider when developing repositories are: the institutional culture, the scope of the repository, the content, the access levels, standards, sustainability, and funding.¹¹ A policy for collection development would need to be agreed upon even among a small group of NGOs with similar interests, such as HIV/AIDS or women's health. Another consideration would be the variation in the types of documents published by NGOs. Not all NGOs publish annual reports. Would preliminary reports or field reports with raw data be included? What about surveys or training manuals? These questions would need to be balanced by the current need for health information in the country.

IV. Relevant Web Sites in the Public Health Domain

Despite these challenges, there are several examples of web sites that begin to or partially fill the need as a repository for grey literature in public health.

- United States Aid In Development (USAID) <http://www.usaid.gov/>
 - The USAID library focuses on sustainable development with the primary mission of serving the information needs of USAID staff.
 - USAID documents, reports, publications, and project summaries can be publicly accessed through the Development Experience System (DEXS), which has over 100,000 records with some 20,000 available for electronic download. Its purpose is primarily to strengthen USAID development projects, activities, and programs and make them publicly available. DEXS offers four major services: USAID contractors/grantees can (1) submit documents to the system, (2) search the DEXS database, (3) order documents (paper, electronic, CD), and (4) subscribe to free USAID reports via email.
 - The DEXS submittal process is described in documentation available on the web site. Documents for submittal should include those documents which describe the planning, design, implementation, evaluation, and results of development assistance activities which are generated during the life cycle of the program or activity.
- Human Info NGO <http://humaninfo.org>
 - Uses Greenstone digital library/repository software.
 - Has 35 to 40 Humanitarian CD Libraries on the Joint United Nations Programme on HIV/AIDS (UNAIDS), community development, food and nutrition, health library for disasters, Rural Hygiene in Africa, Africa Collection for Transition, and others.
 - About 5,000 copies of each library are distributed annually.
- World Health Organization (WHO) <http://www.who.int/en>
 - Site can be searched by country or health topic.
 - The WHO Library and Information Networks for Knowledge (LNK) provide access to WHO-produced recorded information and to worldwide health, medical, and development information resources. The Information Networks for Knowledge provides technical support to help improve the health-related information transfer

structure in developing nations. The services are primarily for WHO headquarters, regions, and country offices; ministries of health and other government offices; health workers in Member States; other UN and international agencies; and diplomatic missions. The WHO library programs help regions and developing countries achieve self-sufficiency in providing information services to the health sector. The library has over 70,000 bibliographic records and 30,000 links to full text documents.

- Blue trunk libraries concept was developed by the library for installation in district health centers in Africa to compensate for the lack of current medical and health information. The collection of more than 100 books on medicine and public health is shipped in blue trunks fitted with two shelves. It is not known if CDs are part of this shipment.
- Unknown if there is a repository for NGO grey literature and/or the submittal process.
- Global Health Council <http://www.globalhealth.org>
 - World's largest membership alliance of healthcare personnel, NGOs, organizations, government agencies, and other public and private institutions. Mission is to ensure that information and resources are available to those who strive for improvement and equity in global health.
 - Advocacy group that reports on world health problems to governments, public and private organizations, and the global health community.
 - Publications section includes a variety of press releases, reports from NGOs and other agencies, notes from the field, annual reports of the Council, and other publications.
 - Unknown if there is a repository and/or the submittal process, but it does have a member login/password.
- British Library of Development Studies (BLDS) <http://blds.ids.ac.uk/blds>
 - BLDS is Europe's largest library on international development at the Institute of Development Studies in Sussex.
 - Extensive collection of government publications, NGO publications, World Bank, United Nations, World Trade Organization, and research institutes worldwide. They also have over 200 development journals that are scanned and selected articles added to the BLDS catalog.
 - Online library catalogue can be searched at blds.ids.ac.uk/blds/search/search.html.
 - Document delivery is via interlibrary loan; some items free to download.
 - Not a repository, but a great prospect for finding NGO material.

Most of the web sites identified above are searchable by geographic area and have some project report summaries. Some sites are subject oriented, such as the Human Info NGO and the Global Health Council. The Human Info NGO has created repositories on CDs, by subject, for distribution to developing nations and other interested parties. USAID has a growing database of health information from its partners and a defined process for the submittal of documents from NGOs to DEXS. The BLDS collects material in many subject areas and provides, via email notification, updates to the collection. However, the documents are not always in an electronic format, free, or current, though the library makes every effort to get documents in an efficient manner to people who request them.

The WHO web site has vast resources and pointers to documents, but to our knowledge makes no effort to collect NGO material. The WHO library is primarily for WHO and its associated organizations. The WHO maintains relations with other international organizations and external partner NGOs. Formal relations with NGOs require that certain criteria be met. In December 2004, there were 189 NGOs that had official relations with the WHO.¹² The WHO also maintains informal working relations with other NGOs. Regional or national NGOs affiliated with international NGOs are usually charged with developing and implementing a program of collaboration with the regional and national levels of WHO to ensure implementation of health-for-all strategies at the country level.¹³ Although WHO has the Library and Information Networks for Knowledge (LNK) that provides access to WHO-produced recorded information and to worldwide health, medical, and development information resources, WHO does not, to our knowledge, have a repository for its NGO documents or current initiatives underway for such a repository.

These examples, and others, such as the New York Academy of Medicine at <http://www.nyam.org/library/grey.shtml> could serve as the basis for more consistent repository development. However, a greater community-wide effort is needed to achieve this goal.

V. Repository Models – Technology and Governance

Assuming that the barriers could be overcome, there are several repository models that may be viable for the further development of web sites or for the development of more formal repositories by NGOs. These include:

PubMed Central is a digital archive of life sciences and biomedical journal literature, developed and managed by the National Center for Biotechnology Information at the U.S. National Library of Medicine (NLM). This system features voluntary participation, flexible public release dates of materials deposited by contributors, and retention of copyright by the author or corporate sponsor.¹⁴ In May 2005, the National Institutes of Health's (NIH's) new policy on enhancing public access to NIH-funded research was implemented. Authors are now requested to submit an electronic version of the author's final manuscript to PubMed Central upon acceptance for publication. The Policy is intended to: (1) create a stable archive of peer-reviewed research publications resulting from NIH-funded research; (2) ensure the permanent preservation of these vital, published, research findings; (3) secure a searchable compendium of these peer-reviewed, research publications that NIH and its awardees can use to manage more efficiently and to better understand their research portfolios, to monitor scientific productivity, and ultimately, help set research priorities; and (4) make published results of NIH-funded research more readily accessible to the public, healthcare providers, educators, and scientists.¹⁵ Such a model may work for NGOs, especially if they have partners or other organizations assisting them in their work.

DSpace at Massachusetts Institute of Technology (MIT) is a digital repository created to capture, distribute, and preserve the intellectual output of MIT. DSpace features access to content through the web. Similar to PubMed Central, DSpace at MIT (and other DSpace institutions) uses the submission model. Authors from among the faculty provide their final manuscripts to the DSpace system. Some initial information is provided along with the manuscript, and then a "bibliographic record" or metadata file is finalized by library staff. The manuscripts are grouped into collections that represent particular communities of interest, academic colleges, or disciplines. DSpace offers the advantage of digital distribution and long-term preservation for a variety of formats, including text, audio, video, images, datasets, etc., and the opportunity to provide access to all the research of the institution through one interface.¹⁶

For small NGOs, the approach of the **Association of Learned and Professional Society Publishers (ALPSP)**, <http://www.alpssp.org/default.htm>, may be of interest. These are "community" organizations that have been created to build the capacity of the small publishers using the digital environment. ALPSP research shows that of the estimated 2000 global journal publishers, 73% (477 publishers) and 20% (2,334 journals) are not-for-profit. Many of the organizations producing a small number of journals may not even regard themselves as "publishers."¹⁷

Google Scholar is a search service that allows users to search for scholarly material across the web and view abstracts of the material found.¹⁸ Special metadata is no longer necessary for all the pre-publication versions of papers which are deposited anywhere on the web.¹⁹ Although many people still claim that they cannot find information on Google or Google Scholar, this eliminates the need for an NGO to develop an elaborate search system for its own documents.

Open Access Archives (OAAs) is another model that would encompass the variety of types of information published by NGOs. Using self-archiving, the NGO would submit documents to an institutional or community archive of its choice. This model is favored in the article by Leslie Chan as a quick way to build research capacity in developing nations.²⁰ The repository could be an institutional one or a subject-based one, like arXiv at Los Alamos that captures virtually all articles in at least a pre-print form.²¹

Greenstone digital library software is open-source and multi-lingual and provides a way of organizing information and publishing it on the Internet or on CD-ROM. An NGO could use this software to build its own digital libraries. Greenstone is produced by the New Zealand Digital Library Project at the University of Waikato and developed and distributed in cooperation with the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the Human Info NGO. The Human Info NGO is based in Antwerp, Belgium, and works with United Nations agencies and other NGOs. They have established a worldwide reputation for digitizing documents in human development and making them widely available and free to developing nations and on a cost-recovery basis to others. A new development with Greenstone is the ability to build collections on a remote server while using a modified version of the Greenstone Librarian Interface, so there is no need to run Greenstone locally. Multiple users can collaborate on the same collection, although not simultaneously.²²

The software for the basic development of a repository is available, and most of it is open source. Greenstone has the additional benefit of being multi-lingual and portable. However, the submission and/or harvesting approaches for capturing grey literature must be carefully considered.

VI. Conclusions

As an information management and research company, IIa believes that grey literature is a vital component of public health information, particularly in developing countries. One or more repositories of grey literature from across NGOs in the public health community would be beneficial to researchers and to health workers seeking to use this information. This would also be useful to major funding sources in making decisions about where to put their money. While there are many barriers to achieving such a repository, the benefits are great, and there are a variety of models that could be used. There are several existing web sites that begin to fill this need, but an information community-wide effort is needed to provide consistent, complete, and effective coverage of this grey literature. The benefits to the research community are obvious, but the ultimate benefit is to advance the use of public health research to improve the lives of people world-wide. IIa will continue to research ways in which public health grey literature can be captured and preserved for future use to benefit public health research.

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Building a Digital Commons for Cyber Security Resources *

Patricia Erwin (*United States*)

Abstract

The Institute for Information Infrastructure Protection (I3P) is a consortium that includes academic institutions, federally funded national laboratories, and non-profit organizations in the United States. The I3P brings experts together to identify and help mitigate threats aimed at the U.S. information infrastructure. Funded by the U.S. Department of Homeland Security (DHS), and the National Institute for Standards and Technology (NIST), the Consortium functions as a virtual national lab, with the ability to organize teams and workgroups to address research and policy-related aspects of the vulnerabilities inherent in the information infrastructure. A core value and long-term goal of the I3P is information sharing. In 2003, this led to the development of the I3P Knowledge Base project. With funding from NIST, the I3P Informatics Services Team was charged with creating a digital commons of cyber security information, tools, and resources for researchers.

Much of the early (2003-2005) information the I3P Knowledge Base provided was temporal, such as the cyber security events calendar and the funding opportunities alert service, or information aimed at the development of the Consortium. As the team began work on the digital library, a host of new challenges were presented. Cyber security, or information infrastructure, is a relatively new area of research, with much of the information about the topic falling into the category of 'grey literature.' While research has been published along the more traditional publication channels, there is valuable research information contained in technical bulletins, presentations, and workshop notes scattered throughout our members' offices and informally organized archives. The information is in a variety of formats, and presents a host of preservation, ownership, and access issues. There also is no fully developed or widely used taxonomy for understanding and categorizing cyber security information. The development of the taxonomy will be a second thrust of the project.

Perhaps the most interesting challenge of this project is how best to balance the need to make available research information in cyber security against certain security and financial risks posed by organizing and making available the information. This presents for the research librarian not only technical and administrative challenges, but also ethical questions.

The goal of my paper is to present a case study, outlining the challenges, the major stakeholders and their roles in creating both challenges and solutions, and the role librarians have played in this project. I believe that the topic of the paper, and the conference focus on open access to grey literature, are an excellent vehicle for this discussion. In examining this case study a number of larger social and political issues will be touched upon. While each of these topics are worthy of more in-depth discussion, I will focus this paper on the building of a cyber security digital commons.

Introduction

Cyber security and information infrastructure protection have emerged as key international issues. The Institute for Information Infrastructure Protection (I3P) was established to promote research to address the potential for cyber threats. The Informatics Services Team has been charged with developing a core set of tools and services aimed at providing access to cyber security information. Central to our mission is creating a digital library, composed of many information types. Much of the information that will be contained in the digital library falls under the definition of grey literature. This paper will outline the proposed development of the Digital Library, the challenges we face in building it, and the very prominent role grey literature contributes to the lasting value of the I3P Digital Library.

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The goal of my paper is to present a case study, outlining the challenges, the major stakeholders and their roles in creating both challenges and solutions, and the role librarians have played in this project. I believe that the topic of the paper, and the conference focus on open access to grey literature, are an excellent vehicle for this discussion. In examining this case study a number of larger social and political issues will be touched upon.

Definitions

It is useful in thinking about the building of a cyber security digital commons to understand the vocabulary of the discipline. Additionally, one might ask 'what is a digital commons', or even a 'digital library'. This section provides an explanation of how specific terms used throughout this paper.

Information Infrastructure Protection

Infrastructure prior to the 1980s was thought of in terms of physical public works systems, such as our water or gas supplies. As more of these systems were computerized, it was recognized that the computer systems that now manage our water and gas utilities were vulnerable to exploitation. The term 'information infrastructure protection' refers to the identification, exposure and protection mechanisms put in place to guard against attacks against eight critical U.S. infrastructures¹ whose processes are controlled by computerized systems.

Cyber Security

Cyber security is a somewhat more problematic term. The National Telecommunications and Information Administration (NTIA) defines it as the protection of information against unauthorized disclosure, transfer, modification, or destruction, whether accidental or intentional. Although it is assumed that the NTIA is not identifying all information as needing protection, there is a subtle message that information 1) needs to be protected, and 2) to do something with information you need authorization.

Digital Commons

When we at the I3P speak of the Digital Commons, we are referring a set of tools and services that are available for public use. The term aptly describes a commitment the team feels to providing cyber security information to the broad public. Certainly, the concept of the 'commons' is not a new one. It was communally owned land from which all citizens could draw benefit. In that same vein the Cyber Security Digital Commons is intended as a virtual place the public is encouraged to use. Thinking about our project in this manner, has been a driving force behind the planning for and development of features of interest to not only researchers, but also the broader public.

Digital Library

There presently exists no comprehensive source for research information in the broad area of information infrastructure protection or cyber security. Individual organizations have in many cases done an excellent job of capturing their published information in these research areas. Academic or research libraries have also acquired and provided access to the published research for members of their academic communities. The I3P Digital Library will provide users with information about the broader body of knowledge in cyber security regardless of its format, location, or ownership.

The I3P Digital Library seeks to create a unique service that 1) captures unpublished and published information in the broad area of information infrastructure protection and cyber security; 2) provides a comprehensive index to information; and 3) offers research tools and services to researchers and the general public.

Cyber Security Taxonomy

The purpose of the cyber security taxonomy is to create a system for naming and organizing digital objects into subject-specific groups. There presently exists no universally adopted cyber security subject-specific taxonomy. The taxonomy produced by the I3P will be a set of subject terms that can be used with our meta-records to describe a digital resource.

Overview of the I3P Consortium

The Institute for Information Infrastructure Protection (I3P) is a consortium of leading national cyber security institutions, including academic research centers, government laboratories and non-profit organizations. It was founded in September 2001 to help meet a well-documented need for improved research and development (R&D) to protect the Nation's information infrastructure against catastrophic failures. The institute's main role is to coordinate a national cyber security R&D program and help build bridges between academia, industry and government. The I3P continues to work toward identifying and addressing critical research problems in information infrastructure protection and opening information channels between researchers, policymakers, and infrastructure operators.

The I3P chooses to avoid a static operating plan. Instead, its guiding principle is to study the gap areas in information infrastructure research – the vulnerabilities that are not being addressed by other research entities. This approach also produces data and knowledge that informs opinion and helps to build a community of researchers that can lead efforts to recognize threats and develop remedies. In 2003 the I3P released the *Cyber Security Research and Development Agenda*, which identified eight underserved research areas. As part of its community building process, the I3P also reaches out to government and industry to foster collaboration and information sharing.

The I3P Consortium has assumed a major role in helping to untangle such cyber security issues as infrastructure interdependencies, or systems of systems, and it is beginning an investigation of cyber security related policy, risk, and economic issues. The I3P is managed by Dartmouth College, with administrative offices in Hanover, New Hampshire.

The Digital Commons of Cyber Security

The Digital Commons of Cyber Security seek to be the electronic conduit through which users learn, collaborate, and create new knowledge in the broad area of information infrastructure protection. Our unique approach is the emphasis on scope; making it the first place the cyber security community [and others] turn to for what is happening in the world of information infrastructure protection.

In addressing our mission we have developed a spectrum of information services including an international cyber security events calendar, a funding opportunities alert service, Security in the News – our daily news aggregation services, a directory of international cyber security organizations, and the Digital Library.

There presently exists no comprehensive source for research information in the broad area of information infrastructure protection or cyber security. Individual organizations have in many cases done an excellent job of capturing their published information in these research areas. Academic or research libraries have also captured and provided access to the published research for members of their academic communities. We see the I3P Digital Library as providing the user with information about the broader body of knowledge in cyber security regardless of its format, location, or ownership.

Cyber Security Digital Library

Following, is a brief description of each what will be contained in the first iteration of the Digital Library:

- **Update Alert:** A page will be devoted to listing newly described and/or received information resources. This page will be automatically updated weekly.
- **Search the Digital Library:** A user will be able to search meta-records about information resources of a wide variety of fields, including: Author, Title, Subject, Keywords, Owner, Information Type, and conference, database, or journal name (if the object is included in a larger work)
- **Browse the Digital Library:** A user will have the opportunity to browse lists of objects, organized by Author, Title, Subject, Owner, Database (in which object is included)

- **Searchable Glossary:** A user may search a cyber security term and be provided with one or more definitions from reputable sources.
- **Building the I3P Cyber Security Taxonomy:** This is an overview page of progress made in developing the cyber security taxonomy. Consortium members will have an opportunity to review and comment on progress made.
- **Suggest a New Resource:** Users will have the opportunity to submit materials, citations, and other resources for inclusion in the Digital Library.
- **Personalized Research Page:** A researcher, from a Consortium Member institution, may set up an individualized citation collection page. We also offer access to bibliographic management software.
- **Rights Management:** Most of the information objects described by meta-records are not owned by Dartmouth College or the I3P. It is important for users to realize that the I3P Digital Library provides a "front door" into research materials, but ownership of items rests elsewhere. The I3P will provide a statement of ownership on each meta-record. The user will need to contact the owner for access to the information. This page also states the I3P policy regarding the access to and use of I3P information.
- **Request Research Assistance:** As a service to our members, the Informatics Team will provide literature searches on research topics of Consortium interest.

Content Development and Management

Content development and management have been addressed through a strong collection development policy. It clearly articulates what information resources are collected and why. A digital library's collection can be somewhat different from a more traditional library collection. Often, individual resources are not owned by the digital library, but are accessed from an off-site collection. The digital library may also serve as a pointing mechanism to resources that require purchase of access by the user. The I3P Digital Library incorporates three types of access, links directly to resources held in the I3P repository, links to digital resources held elsewhere, and information about resources for which access must be purchased.

In identifying content for the Digital Library staff use a set of criteria that includes an examination of the origins of the proposed content, quality of the resource, the type of resource, and how its' potential for long-term preservation.

Emphasis on Grey Literature

Much of our work in developing the Cyber Security Digital Library will be identifying, cataloging, and making accessible grey literature. Early on in the project we realized that this would be our unique contribution to body of knowledge in cyber security. We have identified a list of twelve resource types we anticipate will fall under the rubric of grey literature. We are casting a wide net in our attempt to capture as much quality information as possible. In pursuit of grey literature we will be searching for such diverse resource types as trip reports, research notes, blogs, and industry data.

Taxonomy development and Resource Identification

The development of a cyber security taxonomy will serve two purposes. We are presently using a 'hunter-gatherer' approach to finding individual resources in cyber security. While very effective, it has illustrated the point that there presently exists no universally adopted cyber security subject-specific taxonomy. We might need to search for one resource under a list of similar names or topics.

The purpose of the cyber security taxonomy is to create a system for naming and organizing digital resources into subject-specific groups. The taxonomy produced by the I3P will be a set of subject terms that can be used with our meta-records to describe a resource. The taxonomy developed will include input from researchers and domain experts, contain preferred and cross-referenced terms, and be expandable.

A further enhancement project that may be implemented is the concept of a user-defined taxonomy. Briefly, the user-defined taxonomy would allow searching on terms that the user found most useful. We know, for instance, that a researcher looks for information using terms that may be unfamiliar to the general public. While both groups may be seeking the same information, the route to retrieving that information might be very different. This idea of user-defined subject searching in cyber security is one the team is interested in exploring further.

Challenges to Building the Cyber Security Digital Library

While there are many challenges to building a digital library, the inclusion of grey literature in that library has presented by far the most interesting and in some cases perplexing set of considerations. Some basic tenets of librarianship, such as the good in providing access to information, have been tested both by the subject matter we are working with, and the underlying assumption that not all cyber security research information should be made publicly available. This is also a relatively new body of knowledge. The foundational resources or early writings were not necessarily ever vetted through a publication process, or even captured as formal documents. Our logistical challenge will be to assume the role of cyber-truffle hounds, ferreting out those pockets of cyber security information.

The overarching challenge is embedded in the composition of the I3P Consortium. Academic research centers, government laboratories and non-profit organizations view access to information in very different ways. In some cases this is cultural, but far greater difference is in how U.S. Federal government regulations address the access to information issue. The challenges faced by the I3P in building a collection of grey literature fall into three broad categories: social; legal; and logistical.

Social Challenges

As noted previously, the progenitor of cyber security information is the nexus between computer science and public policy.

Many of those working in cyber security operate in a culture of informality and sharing. This is not to imply a less than serious academic approach to the discipline, but rather a certain outlook that is reflected in naming conventions- think "honeypot" or 'phishing', and the growth of open-source software. This approach is relevant to the capturing of grey literature in that many non-academics are as likely to publish their ideas on their personal website or blog, as oppose to publishing papers through the more traditional publishing model. In attempting to capture and make accessible this information staff have had to be far more creative and dogged in their hunt for information.

Along with the culture of informality is an assumption among computer scientists that machines can manage their electronic information, as oppose to a librarian's approach to information management. While it is true that many of the older, established approaches librarians have used to manage information are simply 'past their prime', the tasks of evaluating information, developing standard taxonomies, and providing a standard systematic process for handling the lifecycle of information are still best done by humans with some degree of special training. This thinking can be a huge obstacle to overcome for any group attempting to manage computer science related resources.

The final social challenge involves the incentives an organization might have for not keeping certain types of information. Librarians are well aware of the link between preservation, access and censorship. If information is not preserved or cataloged then it is essentially non-existent to the user. As discussed later in this paper there may be strong incentives for not keeping information, and therefore making sure that the information never becomes either intentionally or unintentionally available.

Legal Challenges

Much of the grey literature we will be cataloging has been collected through informal means, that is, it has been stored in someone's office, file cabinet, or hard-drive. Several of the legal challenges we face are direct results of not having access to information about the provenance of a document. The chain of authenticity may have been lost, ownership of the information may be obscured, and those agreements that once dictated how the information would be used may be long lost or separated from the information they were intended to protect.

It is very hard to predict that a document, memo, or even note will prove to be a key piece of research information twenty years from now. Intellectual property is regularly produced without a date, author, or ownership stamp. A major challenge as we build the digital library will be to verify that that information we receive is actually owned by the provider, and therefore they can legitimately grant us use of the information.

Additionally, much business information is protected through the use of nondisclosure agreements (NDA). Many NDAs protect any information that is not publicly available.

These agreements outline terms of use, such as who may have access to the information, how the information must be labeled, and how long the NDA is in effect. Unfortunately, the agreement may over time be separated from the information. Consider the implications of publishing a data-rich report on intrusion detection in a business or financial organization. While the data might be old, the simple process of making the information publicly available could be disastrous to the business. At the same time this type of data is notoriously hard to come by and extremely valuable to researchers.

Export control laws in the United States provide a matrix of guidelines controlling information about technologies that may be provided to others outside the United States. Certainly, these laws are relevant when thinking about the technology transfer of research finding. Again, in developing the Cyber Security Digital Library my team may not always know if a grey literature resource was subject to export control, and therefore having imposed restrictions on access. In handling grey literature this is of particular concern.

The final legal challenge was alluded to earlier in this paper. There may be very good reasons why not holding on to non-publicly released information, no matter the research value of the information, may be in an organization's best interest. The U.S. Freedom of Information Act (FOIA) allows citizens to request disclosure of records held in government organizations. While we generally think of FOIA as relating to federal information, a FOIA request may be filed with any government organization, including a state university, national research lab, or government institute. FOIA has a number of exceptions aimed at protecting the national security, trade or commercial secrets, and personal privacy, but the fact that FOIA exists can make those who hold information nervous about maintaining it long-term.

Logistical Challenges

If the social and legal challenges to this project were not daunting enough, the logistical challenges present another wall between users and cyber security grey literature. Given a body of knowledge that is not that old, with much of the early information produced as grey literature, the task of identifying those pockets of information, and gaining access to them for cataloging and preservation purposes has been formidable. Our approach is to form a 'roving band of catalogers' who will go where the information is stored. We will start with I3P Consortium member institutions and branch out from there.

Conclusion

In looking at this project, it is obvious that the challenges are many and varied. This is balanced against what we on the project see as a strong public service component to the project. As society becomes more dependent on computing systems for managing our communications and critical infrastructures, the public needs trusted services that provide quality information in a manner easily understood.

Researchers, in looking at the body of knowledge known as cyber security, must have access to not only resources published through standard methods, but also those pockets of information and historical data that might not be easily found. Serving as a conduit to these resources is a primary motivator for the team.

Finally, there is that link between preservation and censorship that we cannot ignore. The team sees a component of their mission as preserving, and therefore providing for potential accessibility, information that may be of lasting value to the understanding the political, social, and technical aspects of information security.

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GL systems and services in the specific fields of vocational training and labour policies in Italy: the ISFOL case *

Isabella Pitoni and Diana Macrì (Italy)

Abstract

The recognition of the central role issuing organisations have in the production, distribution and management of grey literature provides the theoretical context for this paper. The paper focuses on a particular kind of GL system settled by an Italian public research institute primarily involved in vocational training and labour policies, in the framework of the EU strategies for the European Social Fund. Within this context, it aims to present the GL systems and services that ISFOL makes available through its Specialised Documentation Centre (SDC) in tight co-operation and collaboration with the European Union and the Italian Ministry of labour and social policies.

We focus on how ISFOL GL policy is changing, on one hand thanks to the development of communication and information technology and on the other hand following European Union policies for public access to documents and for the development of the e-Europe and the e-government.

Grey literature produced by ISFOL and the SDC, often in co-operation with the Italian Ministry of labour and social policies, is analysed. At the same time a description of the system of related websites where all ISFOL grey literature is made available online is carried out, to show how new technologies and policies influence the Institute's strategies for making GL available for researchers and operators.

In conclusion, suggestions and contributions are made to create a roadmap of an integrated GL system involving organisations operating in the field of vocational training and labour policies.

Introduction

The definition of grey literature known as Luxembourg Convention and formulated during the 3rd International conference on grey literature in 1997 can be a good way to start this paper. It says: "GL which is produced on all levels of government, academics, business and industry in print and electronic formats, but which is not controlled by commercial publisher"¹. Compared to the former "official definition" of grey literature given during the Seminar of York in 1978², although still stressing how GL's main characteristic is being outside the control of commercial publishers, it implies two important differences: on one hand the recognition that it is always within an organisation that grey literature is produced, and on the other hand the inclusion of electronic documents as possible form of GL.

The first aspect of the Luxembourg definition is not completely new. Although the importance of the issuing organisation has been a characteristic of GL since its appearance, today, thanks to the development of information and communication technologies, these are also involved in its control, management and distribution.

The importance of issuing organisations for GL production has been also at the centre of the latest discussions on grey literature in Italy. Of special interest was the presentation that Alessandro Sardelli has given during the 3rd National conference on grey literature that took place in Rome in November 1999³. He proposed to add to the traditional expression "grey literature" the new one of "organisation literature" as is always a strict link with its producer that, according to Sardelli, characterizes GL in its different forms. He has also singled out four different areas in which grey literature can be applied: 1) Technical and scientific research field, 2) Commercial and productive area often strictly related to the previous one, 3) the world of non-profit organisations, and 4) the public sector.

All these types of organisations, although very different in their institutional missions and targets, produce information and documentation that is in many cases printed and distributed outside the traditional commercial publication channels.

For our purposes we are particularly interested in Sardelli's observations on public organisations. He recognizes how it is within the public sector that GL finds its ideal means of expression intended as a "vehicle of direct communication, of participative

* First published in the GL5 Conference Proceedings, January 2004

democracy, of organisational transparency and of recovery of of historical memory".⁴ If grey literature was born initially in a technical-scientific research context, it later developed also in other disciplinary areas and found their new means of expressions and new forms.

The example of GL produced by the Institute for the Development of Vocational Training for Workers (ISFOL) is interesting because it puts together the public role of the institute with its operative research activities in the field of vocational training and labour policies. ISFOL, because of its institutional role, is interested in producing documents able to quickly reach a wide range of users, from training-system operators, to Public administrations, Social partners, researchers and students. But at the same time, because its institutional role, it wants to stay outside the traditional commercial publication channels.

The other aspect of the Luxembourg convention definition that we are considering, related to documents in electronic format, must be considered in the wider context of the impact that technological innovation had and is still having on the world of communication and information and consequently also on grey literature.

Internet in a very short period of time has developed as a pre-eminent means of distribution of information and documentation (a part of if it is grey or conventional literature). But especially for GL it represents an ideal means of distribution, as it contributes to solve the problem traditionally related to GL - its modest visibility and difficulty to access it.

At the same time, if Internet solves some important problems related to visibility and accessibility and makes distribution of documentation faster and more efficient, it also creates some new questions such as validation, quality, durability and copyright.

Internet and the new digital technologies, besides contributing to improve the speed and efficiency of distribution of traditional GL, have spawned the development of new forms of documentation that have been called "grey literature of new generation" or "grey information". If on the Internet we find the electronic version of technical and research reports, bibliographies, translations, conference papers, dissertations, etc., today there are also "new forms of GL represented by discussion groups, FAQ collections, e-journals and e-zines etc., new forms of grey documentation in its most traditional and well established meaning of "material not spread through the normal commercial publication channels"⁵.

These new forms of grey documentation carry on the same problems of all information available in Internet. These problems include selection, valuation, individuation and control. Also because this "grey literature of new generation" is not included in traditional databases and bibliographies of GL it is often difficult to know it exists.

On the other hand, compared to the enormous quantity of documentation made available online every day without any control, this kind of documentation offers guarantees of quality and the opportunity of being singled out exactly because it is produced within an organisation.

The official website of an organisation is today the main place to find information on the its activities, projects and the documentation it produce. It is also often the best place to start a research on a specific topic for which the organisation is responsible.

Today most organisations use their website as a preferential means for providing information on its publications and GL and often (when not restricted by copyright impediments) they make them available online (availability can vary from basic bibliographic information, to indexes and abstracts, up to the full text of the document).

Internet and new technologies offer a lot of new opportunities and today many organisations producing GL are also engaged in its management and distribution. Through special libraries, documentation centres or publishing areas they often take care of retaining, making inventories, cataloguing, indexing and distributing their documentation. Often they implement online catalogues and databases specialised in documentation produced at national and international levels on topics for which they are responsible (extremely useful tools for specialised research).

It then becomes clear how information and communication technologies offer new opportunities to organisations traditionally producing grey literature. This is even truer of public research institutions as one of their tasks is providing free access to the results of their research.

ISFOL finds the tools provided by information technologies as essential instruments for accomplishing its institutional tasks, especially those related to communication and distribution of information and documentation on its activities and research. The role of documentation and its distribution acquire a growing importance and specific projects such as the Specialised documentation centre (SDC) bears witness to this.

The development of European Union policies: from grey literature to public access to information

The ISFOL policy of access to information and documentation can be better understood in the wider context of European policies on the same subject. This is why it is useful to provide an outline originating from the European activities on the specific topic of GL, starting from the organisation of the York Seminar in 1978, through to the recent European strategies for information and communication.

As is well known, EU interest (then European community) in GL dates back to 1978 when, together with the British library, it promoted the Seminar of York on non-conventional literature. Since 1978 what generated EC interest in GL were themes related to bibliographic control, in order to guarantee availability and accessibility of GL within EU countries (the same themes were also at the center of attention for conventional material)⁶.

Two years later the European Union's impulse produced the implementation of the SIGLE (System for Information on Grey Literature in Europe), a bibliographic database initially covering GL produced in the technical-scientific field but later enlarged to other disciplines such as economics, social science, and humanities. SIGLE was created mainly to provide access to documents and incidentally to improve bibliographic coverage.

In 1985, at the end of EU financing, a new non-profit organisation was created by member states to manage the SIGLE, the EAGLE (European Association for Grey Literature Exploitation).

In recent years, in the framework of activities for the development of the "Information society", and specifically within the e-Europe action plans, the EU recognised the primary role of what has been called "public sector information".

The European Union first dealt with this subject in the "Green paper on public sector information in the information society" and more recently in the document from the Commission of the European communities titled "e-Europe 2002: creating an EU framework for the exploitation of public sector information", which developed into a "Proposal for a Directive of the European parliament and of the council on the re-use and commercial exploitation of public sector documents (presented by the Commission)".

To explain the meaning of the expression "public sector information" we find help in these European Union documents. They clarify that for their purposes information is "any content whatever its medium (written on paper or stored in electronic form or as a sound, visual or audiovisual recording)"⁷ and that when they speak of public sector, "public bodies at different levels of government, central, regional and local, shall be taken into consideration. In all cases, state owned companies operating under market conditions and subject to private and commercial laws are not meant to be covered by either of these definitions"⁸.

A list of examples of this kind of documentation is also given: "Financial and business information is collected by a number of Ministries and public sector organisations. Company registers, required by law in many Member States, are maintained by the public sector. Legal information (in particular concerning legislation and jurisprudence) and administrative information is public sector information par excellence. Patent offices are usually public sector bodies. Scientific, technical, cultural and medical information is extensively collected by public research institutions and public archives. Geographical information relevant to transport and tourism (maps, road traffic situation) is also available in public sector agencies. Tourist information is gathered and published by public sector bodies at different levels of government"⁹.

These definitions clarify how public sector information is all documentation produced and distributed by Public administrations or otherwise "grey literature of the public sector".

Even if EU documents focus on the economic and internal aspects of public sector information they recognise its value in the development of democratic and civil life within the EU.

They recognise how public sector Information / documentation acquire a growing value in the context of the "Information society" and of the development of new technologies. As a matter of fact, information and communication technologies facilitate diffusion and exploitation both for commercial and non-commercial purposes. In this context information can contribute to the promotion of economic and social development of the EU and facilitate circulation of goods, people and services within the EU. To make it possible, EU documents stress the need of a harmonisation of the different legislation in the member states.

Transparency, accessibility and openness are the basic principles that can be highlighted in the EU documents on public sector information. These principles should inspire the action of the public administrations in the member states.

ISFOL and the SDC - Policies for the production and management of GL

ISFOL, as a public research institution active in the framework of EU activities for the European Social Fund (ESF) is careful to adopt basic principles that characterise European Union policies in the field of information and documentation management.

ISFOL, created in 1973, is a state-owned scientific research institution engaged in promoting and developing vocational training and labour policies in Italy. It carries out its activities in collaboration, not only with the Ministry of labour and social policies, but also with Regional authorities, Social partners, State departments, the European Union and several international organisations.

Among its institutional tasks we find the promotion of study, research, documentation and information activities and the exploitation, diffusion and transfer of the results of its activities.

Over the years, the institutional objectives of ISFOL have developed in harmony with the social, political and economic changes taking place in the country.

Since 1995, the Ministry of labour has requested ISFOL to set up the Technical Assistance Structure (TAS) for the European Social Fund under the European Social Fund 1994-1999 Programming. This Structure's task is to provide support and assistance to the Ministry of Labour and Regional Authorities in managing and implementing actions co-funded by the ESF and envisaged in the Multi-regional and Regional Operational Programmes for Objectives 1, 3 and 4.

ISFOL today actively operates within the framework of the European Union strategies for European social fund.

The Specialised Documentation Centre (SDC) is one of ISFOL's projects set up in 1997. It is a Centre for specialised multimedia documentation on themes for which ISFOL is institutionally responsible and is intended to provide theoretical as well as technical and operational documentation answering the needs and interests of national training-system operators.

Specifically, it produces and distributes innovative and integrated documentation products and services to support social and economic research as well as the design and management of training activities.

The SDC also operates within ISFOL's Structure for Technical assistance to the Ministry of Labour and Social Policies UCOFPL (Central Office for Vocational Training and Guidance) and it receives funding for these activities from the European Social Fund.

The SDC carries out several activities of documentation and management including the promotion of documentation produced by the centre and by all of ISFOL. It collects, catalogues, indexes and makes documents (often GL) on vocational training and labour policies available to training operators, researchers and citizens.

Most of the documentation produced by the Institute, especially that which is produced in the framework of EU strategies for the ESF, is not published through commercial publishers and is available free of charge. Often it is also available online in electronic version on the ISFOL website (www.isfol.it) or in the Eurolavoro web pages (www.welfare.gov.it/Eurolavoro).

Many are the specific activities of the SDC related to the production, management, control and diffusion of public sector GL produced by ISFOL such as:

- Creation and implementation of the Catalogue of ISFOL documentation (which includes grey and published materials). It is an electronic database of all documentation produced by different ISFOL sectors since 1974.
- Implementation and updating of the LOGOS database, which includes bibliographic records of documents on vocational training labour policies and EU activities for the ESF produced since 1998 and collected by the CDS.
- Co-ordination of the editing and publishing of monographs, serial materials, and multimedia products both at the institutional level and within the framework of its activities for the European Social Fund.
- Participation in SIGLE (System for Information on Grey Literature in Europe) collecting the bibliographic records of GL produced in the Institute and providing details to the CNR central library national centre for Italy.
- Dissemination of information on ISFOL and ESF activities and distribution of its products through the Internet.
- Management of the CDS front desk open to the public, and of a data service for enquiries and thematic reports on request by Institutional bodies; and,
- Management of a specific documentation system aimed at promoting information on European policies, with particular reference to the ESF.

In the context of these activities, the SDC is engaged in guaranteeing bibliographic control and availability of GL produced by ISFOL with different strategies. We can mention the attribution of the International Serial Standard Number (ISSN) to all periodicals and serial material produced by the Institute, a fundamental tool to allow its identification at international level.

In addition, the recent initiative for obtaining the status of non-profit editor will guarantee better visibility and bibliographic control for ISFOL's documentary production. And, at the same time lends the opportunity to make this available on the Internet without problems related to copyright restrictions.

Participation in SIGLE since 1998 (just after the CDS project started) is also indicative of the recognition of the scientific and informative value of grey documents and of the importance of their standardisation, control, and availability.

The production of serial documentation, in particular the bibliographic bulletins: EUROPA.DOC and EUROPA.DOC Speciale, also represent a contribution to promote bibliographic control and diffusion of (mainly grey literature) documents produced on specific topics. In particular EUROPA.DOC focuses on grey documentation produced by the EU institutions and agencies as well as research organisations on a European level operating in the field of vocational training and labour policies.

Traditional and "innovative" grey literature on the ISFOL and CDS web pages

From the analysis of the ISFOL website and the CDS web pages on the Ministry of Labour and Social Policies website, it is possible to highlight strategies for the management and distribution of traditional grey literature as well as the emergence of "new forms of GL".

To find GL produced by the Institute in the ISFOL website (www.isfol.it) we need to access the "Publications" page. We find on it a list of published materials and grey literature produced by different areas and projects of the Institute in the context of their institutional activities. Documents included on the list are all printed materials and they are often available in electronic format.

Grey documents (not produced by commercial publishers) described on this page are:

- **Osservatorio ISFOL** Indexes of all issues are available online.
- **Monografie sul mercato del lavoro** Monographic series on the labour market. Full text of all documents are available online. Also abstracts in Italian and English are available.
- **Flailab web news** Newsletter on the Flailab project. All issues are available online in full text.
- **INO (Isfol notizie)** Monthly newsletter on ISFOL institutional activities (produced by the SDC). All issues are available online in full text.
- **Europadoc e Europadoc speciale** Bibliographic bulletins on European community documentation and on Social dialogue in the South of Italy (produced by the SDC). All issues are available online in full text.

This is not all the GL produced by the institute. Visiting other pages of the website, we find other products.

On the web page of the Ufficio Stampa (Press Office) we find, for example, information on the internal **ISFOL newsletter**, a bimonthly publication edited by the Press office intended for internal use. It aims to inform staff researchers and personnel about the activities of different areas and projects. Because of its character as an internal work tool, it is not available online

An example of a rich source of GL information is the pages on the section "Sistemi informativi" (Information Systems), which has a page dedicated to "Publications and documents". There you can find a variety of GL products not listed on the main publication page. For among other things we find the **Reports on vocational training** offered in Italy and the **Statistics of vocational training** all of which are available online in full text.

From this analysis we have seen how a consistent part of GL produced in printed version is available also in electronic format. In fact, when ISFOL is not bound by copyright, its documentation is made available online. While, on the other hand, published documents are not available on the website. Instead, only indexes and abstracts can be found.

Whilst recognising the importance of Internet for the dissemination of information and documentation, ISFOL is aware of the important role that traditional printed documents still hold for many users. And, to this end, electronic documents have not replaced printed materials. Thus, different strategies are adopted simultaneously in order to carry out in the best way the mission of the Institute in regard to the dissemination of information and documentation.

Alongside the electronic version of "traditional grey materials" on ISFOL's website, we also find other documentary products that can be defined as "grey literature of a new generation", which carry out an important and innovative informative role.

Examples of these types of GL on the ISFOL website accessible from the homepage are:

- Institutional information: pages providing information on the Institute.
- Bacheca (Showcase): offering periodically updated relevant information. Bacheca also contains information on the latest documentation produced by the institute, eventually with a link to the full text, for example the latest issue of **INO Isfol** or the latest published monographs.

From the section "Research and projects", it is possible to access the pages of the different fields and projects that are a rich source of "grey information".

Besides detailed information on current activities, ongoing projects, the documentation produced, and contact details, we often find on these pages links to legal information, which is of interest to the area or project (for example the "Legislation" page in the Continuous training section), access to databases (examples being the Legislative archive ARLEX or the Orfeo Informative system), as well as links to the websites of national and international organisations co-operating with ISFOL.

Other examples of grey documentation are available on the pages of the Flai Lab project where we find a **Map of business opportunity** and a guide for new entrepreneurs **Voglia di fare** both of which are online and full text.

Let's now examine Eurolavoro (www.welfare.gov.it/EuropaLavoro), the website of the Central Office for Vocational Training and Guidance (UCOFPL) of the Ministry of Labour and Social Policies, where we can also find the SDC WebPages.

In the section called "Communication products and services" a list of links is provided. The first link "Publishing products" contains all documentation produced by the CDS together with other documents produced in the framework of the European Social Fund. All documentation produced within the strategies of the ESF is entirely grey, since the rules of ESF impose the wider dissemination and free access to products financed by this fund.

The different categories of grey documents covered here are monographs, pamphlets, brochures, periodicals, newsletters, electronic sheets, etc. All are available online in electronic format.

Between the documentation produced by the CDS, apart from **Europa.doc** (which is also available on the Isfol website), there is the monograph *"I termini della formazione: il controllo terminologico come strumento per la ricerca"* published in the series *"I libri del Fondo sociale europeo"*. This publication contains the **CDS thesaurus**, a controlled indexing language formed by a list of terms on vocational training, guidance, and labour that is also used as a tool for indexing in the CDS databases.

Also in the Eurolavoro website a variety of "grey information" is available. The **FSE mail** service is an interesting example, because it is listed as a traditional document. FSE mail is a service providing updated information on ESF via email, which fully exploits the continuous updating potential of Internet.

Another link, still in this section is "Communication products and services" called "Multimedia products", which gives access to the online version of some CD-ROMs produced in the context of the ESF.

Also, in this same section, we find detailed information on the project and on its activities and services including documentary products. Here one can access the two databases implemented by the SDC, namely the catalogue of ISFOL documentation and LOGOS databases.

On the Eurolavoro website there are also other information resources that can be included in the category of "public documentation". Detailed information on activities related to the ESF in Italy on training guidance and on other European community initiatives and programmes. For example, we can find catalogues of EU and national legislation related to the ESF and a glossary of terms related to the ESF programming.

Remaining problems, some conclusions, and a concrete proposal

From the roadmap that we have outlined, it can be seen how grey literature produced by ISFOL and its SDC is very rich and varied and as such constitutes an important informative resource. At the same time, exploiting opportunities offered by the Internet and IT technologies, SDC provides a wide variety of GL services that are a fundamental point of reference for training operators, researchers, and net citizens interested in topics related to vocational training and labour policies within the EU strategies for the ESF.

At the same time, however, we see that there are many problems still remaining both on a national and international level. While tools have been set up to guarantee bibliographic control and availability of GL at local and international levels thanks to new technologies, at the same time, new problems have arisen especially in relation to new forms of grey documents that are mainly online. Problems not only specific to GL but which involve other types of online information and documentation.

The enormous quantity of new information and documentation available daily on the Internet makes its control and access even more difficult than in the past. The answer that is often given to these problems is the creation of smaller and more specialised archives and databases, which would be compatible with international standards.

In the field of vocational training and labour policies, the creation of a specific database containing traditional and "new" grey literature produced in Italy by public and private organisations would be useful. The SIGLE system could be reinstated as a point of reference, both for the method of collecting data based on inter-institutional co-operation and the record format that compatible with it.

Organisations producing grey literature in a specific field should be identified and involved in the project; and ISFOL, because of its institutional role at a national level, could be the co-ordinator of this project through the SDC.

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¹ Perspectives on the design and transfer of scientific and technical information. 3. International conference on grey literature, Luxembourg, 13-14 November 1997, Amsterdam : Transatlantic, 1997, p. III.

² "Il concetto di "letteratura grigia" equivale in linea di massima a quello di "letteratura non convenzionale". La caratteristica principale di questo tipo di letteratura, la cui pubblicazione in taluni casi non è prevista fin dall'inizio, è quella di non essere diffusa tramite i normali canali di pubblicazione commerciale, e quindi di essere difficilmente accessibile". La definizione concordata dagli esperti partecipanti al seminario di York è poi integrata di un elenco di esempi di "letteratura grigia" (In Alberani, Vilma, La letteratura grigia, Roma : La Nuova Italia scientifica, 1992, p. 28-29).

³ Sardelli, Alessandro, "Il fascino discreto della letteratura grigia: ridefinizione e ambiti di applicazione" in La letteratura grigia: politica e pratica. 3° Convegno nazionale, atti a cura di V. Alberani e P. De Castro, Roma, ISS, 2000, p. 15-20

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⁵ Alberani, Vilam – De Castro, Paola, Grey literature from the York seminar (UK) of 1978 to the year 2000, ISPESL 35(2001), p. 245

⁶ IFLA and Unesco were discussing and promoting the Universal bibliographic control (UBC) and the Universal availability of publications (UAP) projects.

⁷ Communication from the Commission to the Council, the European parliament, the Economic and social committee and the Committee of the regions: e-Europe 2002: creating a EU framework for the exploitation of public sector information, COM (2001) 607 final, 23.10.2001

⁸ Green paper on public sector information in the information society, COM (98)585 final, adopted on 20 January 1999 COM (2002) 207 definitivo - 2002/123 (COD)

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On the News Front

TOP OF THE LISTSERV

Focusing on women's mental health: A literature review on depression

Toronto, 3 October 2006 - CNW Group

"Depression is a vital public health issue that may impact quality of life, diminish overall health and well being, and result in an economic burden on the individual, society and third party payers. The World Health Organization predicts that unipolar depression will be the second leading cause of disease burden in developed countries by the year 2020. This literature review focuses on the psychological and social factors that make women more vulnerable to depression compared to men by assessing relevant academic and **grey literature** on women and depression for prevalence."

<http://www.newswire.ca/en/releases/archive/October2006/03/c4530.html>

Scopus Enriches Literature Research With PatentCites and WebCites Features

PRNewswire, 27 September 2006

"Scopus®, the world's largest abstract and citation database of research information and quality Web sources, today announced the launch of two new features. PatentCites, released to customers on September 22nd, allows users to track how primary research is practically applied in patents. WebCites, which is to be launched shortly, is the first step towards enabling Scopus users to track the influence of peer-reviewed research on web literature. Researchers want to know the influence of research described in a published journal article. Influence can be evaluated by how often an article has been cited in other research articles; however, research influence often extends beyond the official scholarly literature. For example, how the article has been used in patents, theses or other **grey literature** often available on the web."

<http://biz.yahoo.com/prnews/060927/uktu029.html?v=2>

Study finds dozens of Bering Sea Animals in trouble

August 2, 2006 - Center for Biological Diversity

"A comprehensive study of Bering Sea vertebrate animals identified a total of 66 species of concern, or 12 percent of all vertebrates found in the Sea. ... This is the most exhaustive study of the status of vertebrate animals in the Bering Sea to date. The Center for Biological Diversity and Pacific Environment examined regional and national taxa guides, databases, published literature and other sources to determine the total number of vertebrate species in the Bering Sea. Once a complete list of Bering Sea animals was established, the Center reviewed state, national and global lists of imperilled species and nearly 500 references in the published and **grey literature** to identify all species of concern present in the Bering Sea."

<http://www.biologicaldiversity.org/swcbd/press/bering-sea-08-02-2006.html>

Edutech Middle East and The Berkeley Electronic Press partner to bring enhanced library resources to the Middle East United Arab Emirates

AME Info, United Arab Emirates, 16 July 2006

"Edutech Middle East, a leading learning solutions provider worldwide, and The Berkeley Electronic Press (bepress), a leading publisher of peer-reviewed electronic journals in economics, business, political science, law, and science, announced a partnership to market and promote the roster of bepress electronic journals to academic, government, and corporate libraries in the GCC and Levant regions. In addition to the roster of 27 peer-reviewed Berkeley Electronic Press journals, EDUTECH will also be distributing bepress' flagship product, ResearchNow Full Access, which includes all working papers, preprints and other **grey literature** content from institutional repositories hosted by bepress, as well as subject-matter repository materials from the bepress Legal Repository and COBRA: Collection of Biostatistics Research Archive." <http://www.ameinfo.com/91523.html>



Harnessing the Power of Grey

EIGHTH INTERNATIONAL CONFERENCE ON GREY LITERATURE

Lindy C. Boggs
International Conference Center
New Orleans, Louisiana USA
4-5 December 2006

● GreyNet Award Recipient 2006

Marcus A. Banks, Library Associate with the New York University School of Medicine is recipient of the GreyNet Award 2006. This award is in recognition for his contribution to the field of grey literature over the past year. Nominations for the GreyNet Award are based on ⁽¹⁾ Results from the GL7 Participant Evaluation Forms, ⁽²⁾ Publication of the author's full-text paper in the GL7 Conference Proceedings, ⁽³⁾ Selection and publication of the author's conference paper as a journal article, whereby research results originating in the Conference Series are exported and become accessible via other channels, ⁽⁴⁾ Prior history of the author on the topic of grey literature, and ⁽⁵⁾ Willingness to attend the GreyNet Award Dinner and personally receive the honor.

<http://www.greynet.org>

● Annual Award Dinner in the French Quarter

This year's GreyNet Award Dinner will be held on December 3rd 2006 in the Upper Terrace dining room of The Court of Two Sisters. This historic restaurant and famous courtyard is situated between Royal and Bourbon Street in the French Quarter. The Annual Award Dinner will commence at 7:00pm and personal invitations will be extended to GreyNet Members, GL8 Conference Sponsors, GL8 Program Committee Members, and Special Guests. <http://www.greynet.org/greynethome/annualawarddinner.html>

● New Teaching Initiatives in Grey Literature, A Roundtable on Curriculum Development

Results of a recent online survey reveal that almost a third of the respondents are actively engaged in teaching and/or research in the field of grey literature. One such example is an annual guest lecture series on GL for masters' students at the University of Amsterdam, Department of Media Studies. At the Eighth International Conference on Grey Literature, 'curriculum development' will again appear on the conference program. Julia Gelfand from the University of California will facilitate this roundtable, where new teaching initiatives involving grey content will be addressed. If you have developed a course module dealing with grey literature for either onsite or distance learning programs, your contribution to this GL8 Roundtable is greatly encouraged.

<http://www.textrelease.com/gl8program.html>

● Project Information Document (PID) harnesses Conference Results

A Project Information Document (PID-Form) similar to others that are in place and use elsewhere has been designed to accommodate GL research. The PID-Form will be distributed to those authors/researchers, who responded to the GL8 Call for Papers, as well as to authors/researchers from last year's conference in this series. Results gathered from these résumés are expected to provide answers to relevant questions such as the percentage of research on the topic of grey literature that is formally funded, the ratio of ad hoc research, the ratio of individual to team research, average research costs and expenses, the duration of research projects, etc. The final results from this and 25 other projects will be presented at GL8 this December.

<http://www.textrelease.com/gl8conference.html>

● Conference Registrations close on November 24, 2006

Register today and guarantee your presence and that of your organization at the Eighth International Conference on Grey Literature. Information professionals from countries worldwide will meet to address the state of the art in grey literature with applications and innovative uses in and for science and technology.

<http://www.textrelease.com/gl8registration.html>

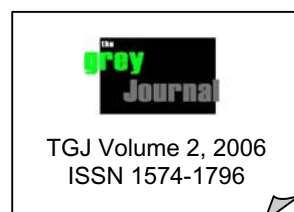
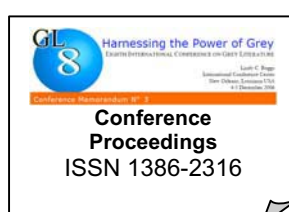
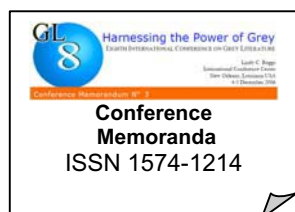


Grey Literature Network Service

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GreyNet's main activity lies in "Corporate Authorship" of electronic and print publications as well as web resources. GreyNet is conscious of the fact that these valuable resources are made possible through the intellectual and financial contributions of leading organisations in the field of grey literature. These organisations fulfil a role that is beyond sponsorship, because they are *pari passu* responsible for the further development of GreyNet's content base, which currently includes:



Recognition of the support of these Associate Members is duly manifest here and on all GreyNet's print and electronic publications.

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About the Authors

Anne Asserson holds a Cand. polit. with a Masters in Information Science from the University of Bergen, UiB. She has been working with Research Documentation, and has participated in substantial parts of CRIS developmental work, locally and nationally. Anne Asserson has been part of the establishing and implementing of a Research Documentation system, Fdok www.ub.uib.no/fdok, at the UiB. For several years she was the chairwoman of the Steering Group of the national CRIS system and project secretary of a National system for academic administration. Anne Asserson is presently representing UiB in the national group that is implementing a new national research documentation system, FRIDA. She has also participated in The CORDIS funded European-wide project on "Best Practice" 1996. She was a member of the working group set up 1997 that produced the report CERIF2000 Guidelines (1999) www.cordis.lu/cerif, coordinated by the DGXIII-D4. euroCRIS is now the custodian of the CERIF model www.eurocris.org. Anne Asserson is a member of the Best Practice Task Group.
Email: anne.asserson@fa.uib.no

June Crowe is the Senior Researcher at Information International Associates, Inc. (IIA). She received her AMLS from the University of Michigan, Ann Arbor and her M.Ed. in geographic education from the University of Georgia, Athens. She has extensive experience in the management and operations of library services across government, public, academic, and special libraries. At IIA she performs open source research on a variety of topics and manages research projects involving web-based open source document identification, collection, and processing. Her primary interests are open source information in Grey Literature, repositories, and open source intelligence tools. Email: jcrowe@iiaweb.com

Patricia Erwin is Senior Assistant Director for Informatics Services at the Institute for Information Infrastructure Protection (Dartmouth College, Hanover, New Hampshire). She has held information management related positions at the Dartmouth College Library, the University of Virginia Library System, and in private industry. She regularly teaches graduate and undergraduate courses in knowledge management, organizational learning, and critical thinking. Ms Erwin holds a Masters Degree in Library and Information Science from Indiana University, and a Masters Degree in Internet Strategies Management from Marlboro College. Her primary interests are in how organizations leverage what they know to push a discipline or area of knowledge forward, the role management of information plays in the research process, and how organizational structure enhances or impedes the flow of information. Email: perwin@thei3p.org

Gail Hodge, IIA Senior Information Scientist, is an authority in the field of information science, with an emphasis on metadata, taxonomy, and thesaurus

development. For over 25 years, she has helped organizations develop systems for capturing metadata and for using classification schemes, thesauri, and other knowledge organization sources in a variety of fields, including the environment, life sciences, and aerospace. Email: gailhodge@aol.com

Keith Jeffery is currently Director, IT of CCLRC (Council for the Central Laboratory of the Research Councils), based at Rutherford Appleton Laboratory in UK and head of Business and Information Technology Department with a staff of 140 supporting over 360000 users, developing software for business and science and doing leading edge R&D. The department hosts the UK and Ireland Office of W3C and develops and supports the largest OA (Open Access) institutional repository in UK. Keith is a Fellow of both the Geological Society of London and the British Computer Society. He is a Chartered Engineer. He is an Honorary Fellow of the Irish Computer Society. He is president of euroCRIS (eurocris.org) and vice-president of ERCIM (ercim.org) and holds three honorary professorships. He has extensive publications and has served on numerous programme committees and research grant review panels. He has particular interests in 'the research process' and the relationship of hypotheses, experiments, primary data and publications based on research in information systems, knowledge-based systems and metadata. Email: k.g.jeffery@rl.ac.uk

Diana Macri Officer of ISFOL, Institute for the Development of vocational training for workers (National Public Research organization involved in VET and labour policies) since 1980. Since 1997 she works in the Specialised Documentation Centre and she participate in research projects on scientific documentation and technical information concerning institutional fields. Email: d.macri@isfol.it

Isabella Pitoni Since 1981, Researcher officer of ISFOL Institute for the Development of vocational training for workers (National Public Research organization involved in VET and labour policies) responsible for designing and managing research projects on scientific documentation and technical information concerning institutional fields. Since 1997 Director of the Specialised documentation Centre of ISFOL Director of the ISFOL research and technical assistance Unit to Ministry of Labour for European Social Fund Communication and Information policies. And, She is an author of scientific and technical issues on specific themes. Email: i.pitoni@isfol.it

Markus Weber studied Sociology, English Linguistics and Social and Preventive Medicine at Zurich and Lausanne University in Switzerland. For many years he worked for institutions active in harm reduction measures (street work, shelter homes, etc.). On finishing his studies he started work at the Swiss Federal Office of Public Health in the Competence Centre for Evaluation (CCE) where he is responsible for designing, mandating, assessing and valorizing external evaluation studies on the Office's public measures (prevention, control, information).
Email: markus.weber@bag.admin.ch

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