

Recommendations for an integrated information system at the Chilean National Council for Drug Prevention

Luz M. Quiroga

University of Hawaii, Information and Computer Science Department
lquiroga@hawaii.edu

Pablo Villatoro

Universidad Diego Portales
Instituto de Ciencias Sociales, Escuela de Sociologia
pvillat@mi.terra.cl

Abstract

A study aimed at strengthening the information and communication systems for drug prevention, control, and treatment for the Chilean National Council for Drug Prevention (CONACE) is described. Diagnosis and recommendations are based on: analysis of the demand and availability of information and systems; evaluation of the CONACE Center of Documentation and Information (CDI) collection, users, databases, and services; and, evaluation of the indexing language and the vocabulary for information retrieval used in the CDI databases. Guidelines for incorporating user requirements in the information and communication technologies used by the CDI are provided. The impact of the use of these information systems and technologies for collaboration at the national and international level are discussed.

Introduction

This paper describes a study [1] requested by the National Council for Drug Prevention (CONACE), the Chilean governmental agency whose mission is to implement public policies on drugs to prevent the consumption and traffic of illicit substances in the country.

CONACE, aware of the significance of advances in information technologies and the impact they might have on the development and management of drug policies in Chile, is currently working toward the modernization of its Center of Documentation and Information (CDI). This study is one of the actions in support of this goal and was aimed at strengthening the information and communication systems for drug prevention, control, and treatment that supports the government decision making processes. It was conducted by an interdisciplinary group which included a project manager, a system analyst, a sociologist, a thesaurus developer, a librarian, and an information technology specialist.

Sections include background, data collection methods, diagnosis, and recommendations. The diagnosis focuses on the current demand and availability of information and systems for drug prevention, control, and treatment, that are contrasted with the needs users expressed. It includes an analysis of the CDI, its collection, users, databases and services, and an evaluation of the indexing language and

the vocabulary for information retrieval used in the CDI database. Another component refers to the current information and communication technologies used by the CDI and provides guidelines to incorporate user requirements. The impact of the use of these information systems and technologies for collaboration at the national and international level are discussed.

1. Background of the study

This study was carried out under an agreement for technical cooperation between CONACE and the Economic Commission for Latin America and the Caribbean (ECLAC), an organization of the United Nations.

ECLAC, <http://www.eclac.cl>, has contributed with research, analysis, and technical cooperation for the evaluation of proposals on policies and strategies to prevent and fight the production, trafficking, and consumption of illicit drugs in the region. In this context, they generated a proposal for CONACE related to public policies for the prevention and control of drugs [2]. This paper reports another example of the cooperation between ECLAC and CONACE.

The focus of CONACE's programs and studies are youth, family, education, community, workers, and the marginal sectors population. In order to accomplish its

responsibilities, CONACE's areas of work and services include:

a) Drug observatory: example of its activities are the census of drug use in the country; studies on prevention, control, and treatment, and evaluations of the different prevention programs.

b) International relationships: it promotes multilateral and bilateral cooperation and the approval of international treaties.

c) Legislation: example of its work are the joint studies with the Sub-Secretary of the Interior to improve the legislation on illicit traffic of drugs, and to modify the regulations related to alcoholic drinks and vinegars

d) Phone-drugs: its goal is to provide psychological support to drug addicts and their families.

e) The CDI, the government information center on drugs, has the most complete collection in the country, being a depository of printed and audiovisual drugs material produced by Chilean and international organizations. An analysis of the DCI is given in Section 3.2.

The use of drugs in Chile. Information provided is based on the Fifth National Study on Drugs at a national level (2002) [3]. The survey has been conducted every two years, beginning in 1994, in order to examine the status of the use of drugs in specific populations and the social impact of the use of alcohol and illicit drugs as well as to measure the magnitude and trends of the use of drugs in Chile. Results of the 2002 study showed that 5.68% of the sample had used drugs during the previous 12 months (marihuana, cocaine, coca paste, crack, ecstasy, peyote, and so on). Prevalence of use of drugs is higher in the male population (4:1 in the case of marihuana, 5:1 in the case of cocaine, and 10:1 in the case of coca paste). Consumption is also higher in the younger population, 19-25 years old (14% of them had recently used marihuana), and in the lower socio-economical levels; the study showed a difference of 10:1 between the low and high socio-economical level in the case of coca paste. As in earlier studies, marihuana was the most used (5.17%), followed by cocaine (1.57%) and coca paste (0.51%). A reason for concern is the slight increase in the use of cocaine at the lowest socio economical level; also, the intensity of the use of coca paste at this level is particularly high, 114 days over the previous 12 months. Intensity of use has become a more serious problem than the proportion of individuals who use drugs.

2. Data collection methods

In order to have a diagnosis of the demand and supply of information for drug prevention, control and treatment, as well as the feasibility of implementing information and communication technologies, the methodology for data collection included the following techniques: a) Interviews with CONACE and CDI staff aimed at

understanding their information needs and resources as well as the CONACE technological infrastructure, b) survey to CONACE regional branches to learn about their information needs, collections, and services, d) statistical analysis of CONACE and CDI collections and databases, both qualitative and quantitative, aimed at identifying its strengths and weaknesses regarding scope, topics, type of documents, as well as the institutions producing information on drugs, e) online survey to CDI users to learn about their information needs, expectations, and satisfaction, f) interviews with a sample of experts in prevention, control, and treatment, g) review of records of Q & A in Phone-drugs in order to identify topics, concerns, and demographics of its users, h) visits to relevant libraries and information centers in Chile to identify databases, thesauri, standards, management software, information technology infrastructure, possibilities of collaboration, data interchange, experiences, and so on, i) Evaluation of existing indexing thesauri, and j) one-day seminar to identify the demand and supply of information for drug prevention, control, and treatment. The seminar was organized around four main topics: prevention, control, treatment, and communications. Attendees represented decision makers in drugs-related issues, planners, researchers, teachers, media, information and communication systems specialists, police officials and security agents, government policy makers, individuals responsible for private or public programs, and non-profit members and community leaders.

3. Diagnosis and recommendations

This section attempts an approximation of the Chilean situation on drug information demand, supply, use, users, and systems. The emphasis is placed on findings that have implications for enhancements in the use of information and communication technologies in the CDI.

3.1 Demand and supply of information and systems for drug prevention, control, and treatment.

3.1.1 International sources of information used in Chile

An increase in the production of information, knowledge and research on consumption and trafficking of illicit drugs has followed the adherence of the United Nations members to the Conventions on Control of Drugs in 1961, 1971 and 1988. Researchers and experts in Chile value the quality of information in international web sites that include official governmental and multilateral information. Among the websites more frequently used are: the European Monitoring Centre for Drugs and Drug

Addiction (EMCDDA) www.emcdda.org, the Spanish National Plan on Drugs that hosts the Observatorio Español en Drogas www.mir.es/pnd, the United Nations Office on Drugs Control and Crime Prevention (ODCCP) www.odccp.org/odccp/, the National Institute on Drug Abuse (NIDA) www.nida.nih.gov, the Inter-American Drug Abuse Control Commission (OAS/CICAD) www.cicad.oas.org, the World Health Organization www.who.int/substance_abuse, and the International Labor Organization (ILO), www.ilo.org.

It is worth mentioning that several other websites that have relevant material such as evaluations of prevention and control programs, measuring tools, legislation, statistics on traffic and control, and policies, were not mentioned by the surveyed experts. Examples of these sites are: Substance Abuse and Mental Health Services Administration (SAMHSA); Monitoring the Future, an ongoing study of the behaviors, attitudes, and values of American secondary school students, college students, and young adults; the Institute of Behavioral Research Texas Christian University - USA.; the Center for Disease Control - USA.; Office of National Drug Control Policy (ONDCP) ; the Office of Juvenile Justice and Delinquency Prevention - USA.; Ibero American Network of NGOs (RIOD); Centre for Drug Research, University of Amsterdam, and the World Bank.

Strengths identified by the surveyed Chilean experts point to the advantage of information technology to support the dissemination and transfer of information. This is specially the case for USA websites, databases, and digital libraries, as well as fiscal, evaluation, and information systems that are cooperative efforts among different international organizations.

Weaknesses call attention to the low development of Latin American websites, a fact that reduces access to information with “ecological validity”, i.e. pertinent to the socio cultural reality.

Thus, it is considered necessary to make special efforts to incorporate the following components in CONACE’s information system: a) filtering and personalization techniques in order to increase user awareness of valuable and relevant international resources and b) documents and web based information produced by Latin American countries, in order to improve users access to information more pertinent to their socio-cultural reality.

3.1.2 Supply, demand and use of drug information in Chilean institutions

Quantitative results of demand for information are based on the CDI collection that holds the most complete collection on drugs in Chile. The analysis showed that the main producers of information are the public agencies (59% of the collection), while Universities contribute only 6% and NGOs contribute 5.5%; this low level of participation of universities in the national production of information is linked to a lack of information interchange; some experts indicated that the information and

knowledge generated at the Chilean universities is not known or used by government decision makers.

Strengths refer to information on drugs produced by CONACE, such as epidemiological studies in different populations: urban, young, detention center detainees, and public transport drivers. Improvement in statistics of illicit drugs control was also recognized. Weaknesses refer to problems with access and use of the existing information, such as CONACE epidemiological databases; a lack of abstracts of research articles, thesis, and dissertations; and a lack of qualitative studies (only 4%).

In summary, it is recommended that in future developments of CONACE information systems, the following actions be taken: a) to increase access to academic research results, especially those of a qualitative nature, b) to make CONACE information resources available online, such as databases of epidemiological studies on general and specific populations, and c) to form work groups devoted to the production, digitization, and online delivery of analytical abstracts of studies and relevant information.

3.2 The CDI

3.2.1 Collection, services, and users

The collection, according to an analysis of the database, held 3,731 items (August 2002). Monographic work is the most frequent type of material (72.3%) and articles comprise 9.8%. Fifty two percent of the collection refers to Latin America, and 80.08% is published in Spanish. The CDI doesn’t subscribe to specialized journals. Products elaborated by the CDI include a compact disk with articles of newspapers on CONACE, a catalog of analytical abstracts of preventive programs, projects, and actions conducted by the public and private sector, and a directory of organizations involved in such programs. Some of these products have been discontinued because of a lack of human resources [4].

Recommendations for the CDI include restarting the development of the products mentioned in the previous paragraph. Other recommendations refer to an analysis of costs for acquisition of materials from different providers such as CINDOC in Spain and “Alerta al conocimiento” in Chile. As the database only registers information of printed and audiovisual material, it was also recommended to include non-monographic material such as newspaper articles, press releases, pamphlets, bulletins, conference proceedings, posters, and games. Many of these items are already received in full text, digital format which implies the need for specialized information and communication technology and systems management.

In relation to current users, one segment is composed of researchers and planners from CONACE (Santiago) who consider the CDI collection as complete and of good quality. Other segments are high school students preparing homework and teachers who pick up prevention

materials to be used in their school programs. More limited use is made by researchers in regional offices because of geographical distance; several CONACE officers, and researchers in general, rely more on web information, their own collections, or colleagues in other institutions and countries. It was also mentioned that it is fastest and easiest to use the digital libraries on the Internet rather than physical libraries. One interesting data collected shows an increase of 30.46 % in the reference questions asked by e-mail during 2001-2002.

Regarding international collaboration, CDI is a member of several international initiatives in the area of drugs, such the Inter American Drug Information System (IADIS), the Inter American Commission for Control of Drug Abuse of the Organization of American States (CICAD / OAS), and the Ibero American Network of NGOs (RIOD).

At a national level, several Chilean institutions and programs have websites with relevant information on drugs, such as Asociación Chilena de Seguridad, Programa de Prevención en Alcohol y Drogas, Centro de Reeducción de Adictos DAR, Comisión Antidrogas Las Condes, Cruzada Ayuda a la Vida (Instituto Chileno de Salud Mental), Fundación Contra Adicción, Portal para Chile, Instituto Pastoral de la Familia, Programa de prevención del alcohol y otras drogas, Vicaría de la Esperanza Joven, and Programa de prevención del consumo de drogas y alcohol. However, there is no network that brings together the different organizations that produce and or supply information on drugs.

Users perceive that the main challenge for the CDI is the modernization and incorporation of modern information technologies. Specific suggestions refer to:

- 1) The creation of a national information network on the drug problem, with CONACE as one of the main nodes. The first step to this end is an update of the directory of institutions working on the drug problem that the CDI once produced. It would also be important to generate agreements for collaboration and information exchange with relevant national institutions such as the Ministry of Planning (MIDEPLAN), the National Statistical Institute (INE), universities, psychology and sociology schools, and NGOs.
- 2) More interactive information systems and interfaces for information systems and web portals based on a specific audience and their information interest (see table 1).
- 3) As to type of information, it was requested to broaden the online access to non-monographic material and to statistical data produced by CONACE. It was also recommended to include a virtual room for analytical abstracts of research work.

3.2.2 Indexing language and information retrieval

One special concern in this study was the analysis of the indexing language and vocabulary used in the CDI database, given its implications for information retrieval [5]. This part of the study included an analysis of existing

vocabularies in the area of drugs and an evaluation of the vocabulary used in the CDI database. The existing vocabulary that includes the terminology of drugs used in Chilean libraries and information centers includes the U.N. Macro-thesaurus, which contains terms on social and economical development; the UNESCO thesaurus including terminology on education, culture and communication; Descriptors in Health Sciences (DeSC) of the Latin American and Caribbean Center on Health Sciences Information (BIREME); the Multilingual Thesaurus on Psychology produced by the Institute for Information and Documentation in Social Sciences and Humanities (ISOC, Madrid); the Chilean Library of Congress, with its law and legislation subject headings; and the ISDD (Institute for the Study of Drug Dependence) thesaurus.

The CDI vocabulary consists of 577 descriptors, 172 of which come from the ISOC and ISDD thesauri, and 405 from an on-going effort, in consultation with experts in the area, to build a terminology for the library material. Establishing terminology on control and legislation is most difficult. Although they are topics of international relevance, some of the terminology is specific to each country and some legal concepts have specific meaning in the context of the legislation of each country.

Strengths identified include the existence of regional and international organizations that have experience in building vocabularies for drug related systems.

Weaknesses are the current indexing tools and vocabularies that are not updated and that lack many concepts and relationships. The vocabulary presents inconsistencies in the development of synonyms, specificity, and the naming of the concepts. This problem was also detected by some interviewees who stated that they require current information of a high degree of specificity for their decision making tasks. Finally, another weakness is the lack of cooperative work at the national and regional levels aimed at the standardization of languages, while preserving and integrating different experiences and realities. The indexing vocabulary should facilitate search and retrieval of precise information for every potential user of a regional database on drugs.

Recommendations for the vocabulary include the formation of a multidisciplinary group to update the CDI vocabulary. It is considered a permanent work which should follow a rigorous methodology for the inclusion of terms and relationships to finally become a classified thesaurus. Terms, concepts, definitions, and standardized vocabularies established in international treaties and agreements are a first source for selecting terminology to update the CDI vocabulary. An example is the chapter devoted to "definitions" in the "Convention of the United Nations against the illicit traffic of drugs" (<http://www.incb.org/e/conv/1988/cover.htm>).

It was also recommended to establish a cooperative work group with other information centers of the Inter

American Drug Information System (IADIS) to which CONACE already belongs. It will be aimed at sharing experiences, methodologies, definition of concepts, vocabularies, search modules, and so on.

3.3. Information and communication technologies

The technological infrastructure and human resources available in CONACE are adequate for the implementation of the requirements of the system. However, databases and digital files are scattered in the different CONACE units; they include the CDI bibliographic database, a record of the use of the CDI collection, press clippings, phone-drugs records, statistical records of national studies and surveys, files of schools and teachers, projects funded by CONACE, and events lists. It is necessary to create an integrated, collaborative, consistent, dynamic, and user friendly system, which will respond to the information needs of the different types of users of the CDI.

The convenience of having standardized terminology to refer to concepts and names was previously mentioned. The core of the proposed information system is composed of the authority files of institutions, concepts (ontology, thesaurus), and persons; these authority files will provide consistent access points to the other databases that include documents, events, statistical data, projects (good practices, in context) and information usage (see graph 1). The documents database could include not only a bibliographic citation, but the digital text itself; in time this will support the consolidation of a digital library. However several factors have to be taken into consideration to warrant the success of such a system. Next, some elements of the conceptual framework for the establishment of the Information and Communication system of the CDI are presented.

Need for standards for data representation. Fundamental to the interchange and reuse of data is the use of standards for data description [6]. In this regard, it is required to collaborate and adapt standards used in the region, such as the schemes developed in the LATTES platform <http://lattes.cnpq.br> of Brazil, used for the description of persons, institutions and projects [7]. Another standard that should be considered is the Dublin Core, internationally used for the description of digital materials. It includes minimal elements to describe electronic records, such as title, topics, language, authors, date of creation, <http://dublincore.org>. The CDI database already complies with the ISO standard 2709 – ANSI NISO Z39.02 for interchange of bibliographic data, which would allow interchange of information with organizations such as BIREME, Medline, and OEA/CICAD.

Need for standards for access points / Authority lists. This refers to the need of normalized terms for

concepts (thesaurus, ontologies), institutions, and personal names [8]. The CDI Information System should be centered in these authority lists to warrant consistency in database access points (see graph 1). The classified thesaurus recommended in section 3.2.2 can also constitute the element that guides navigation on the web of the CDI in a way consistent with the databases access points.

Editorial policies are needed to enforce the use of standards for metadata and access points for the digital material produced by CONACE.

User centered design based on users' profile. Table 1 describes the information needs for the different types of users identified during this study. This typology can support filtering mechanisms to deliver more relevant information according to the interest of different audiences. Users include students, teachers, parents, workers, community leaders, non-profit staff and volunteers, researchers, consultants, dissertators, health professionals (medical doctors, psychologists, rehabilitation program managers), government officers (legislators, judicial system), journalists, policy makers and labor prevention managers. Profiles, information about user goals and interests, could be used to filter information, as shown in graph 2. Profiles can also be used to guide the design of CONACE's web sites devoted to specific types of users / audiences. This implies metadata describing audience and type of document in databases records in order to match user profiles.

Information on people versus bibliographic information. During data collection, it was frequently mentioned that on many occasions it is more important to have information on persons, experts, and contacts instead of references to their work. A database on persons is a fundamental part of this proposal, as shown in graph 1.

Participative acquisition and management of contents. Interviewees expressed the desire to participate in the selection of documents and records for the CDI collection and databases. The proposed system should contain a web form to accept recommendations; this would allow taking advantage of the knowledge about information resources each individual has.

Sharing and reuse of data. Another level refers to cooperation with institutions that hold and maintain collections in the area of drugs. This would avoid expensive duplication of effort, especially duplication of data. Agreements with other institutions for sharing information would allow populating CONACE databases. Examples of possible sources are the authority files of the National Library of Chile, which contains more than 40,000 standardized records of Chilean institutions. Other data that could be linked to CONACE databases are the bibliographic records from SCIELO, Scientific Electronic Library Online that includes selected Chilean scientific journals <http://www.scielo.br>, and the Chilean National Council of Science and Technology (CONICYT)

databases on research projects and researchers. Another source is the database of educators in the Ministry of Education. The system could use XML markup language and associated technology to facilitate sharing data from heterogeneous databases, managed by the different software and platforms used by cooperating institutions.

User interfaces for information retrieval. Current access to the CDI database is of limited functionality. A conceptual system design mockup was built to show the possible interfaces to web accessible databases. The system would support interfaces for identifying users and their task for a basic filtering system (graph 2), it would support web browsing based in the categories of the thesaurus (graph 2), and would integrate searching and browsing (graph 3). It would use the Z39.50 standard, which will allow a common interface to simultaneously search different heterogeneous databases (graph 1).

Space for interaction. This refers to virtual spaces and bulletin boards devoted to the discussion of topics relevant to drug issues. These knowledge networks and community of practices will enhance the value of the database of experts and the digital library that would hold their work.

Digital library. Interviews and surveys found that users prefer online full text documents while the CDI database holds mainly references to library material. CONACE produces valuable digital documents which can comprise the beginning of a digital library, an organized set of digital materials available via the web-accessible databases of the proposed system. Staff members and users of the regional CDI offices will be one of the main beneficiaries.

4. Final remarks. ICT to support international cooperation to combat the drug problem

The study identified the need for national and international cooperation among the many institutions that share goals and missions related to the drug problem. The use of Information and Communication Technologies (ICT) can open avenues for agreement and collaboration to share information, procedures and software developments. At the national level, CONACE is seen as the best candidate to initiate and coordinate a national network on drug information. At the international level, the use of ICT will support the participation of CONACE in initiatives aimed at creating an Inter-American digital library on drug prevention, control, and treatment. Organizations could share responsibilities aimed at adding value to the databases and digital library, collaborating in the selection and processing of materials, and in the adoption of interoperability standards that would allow to share valuable existing digital information.

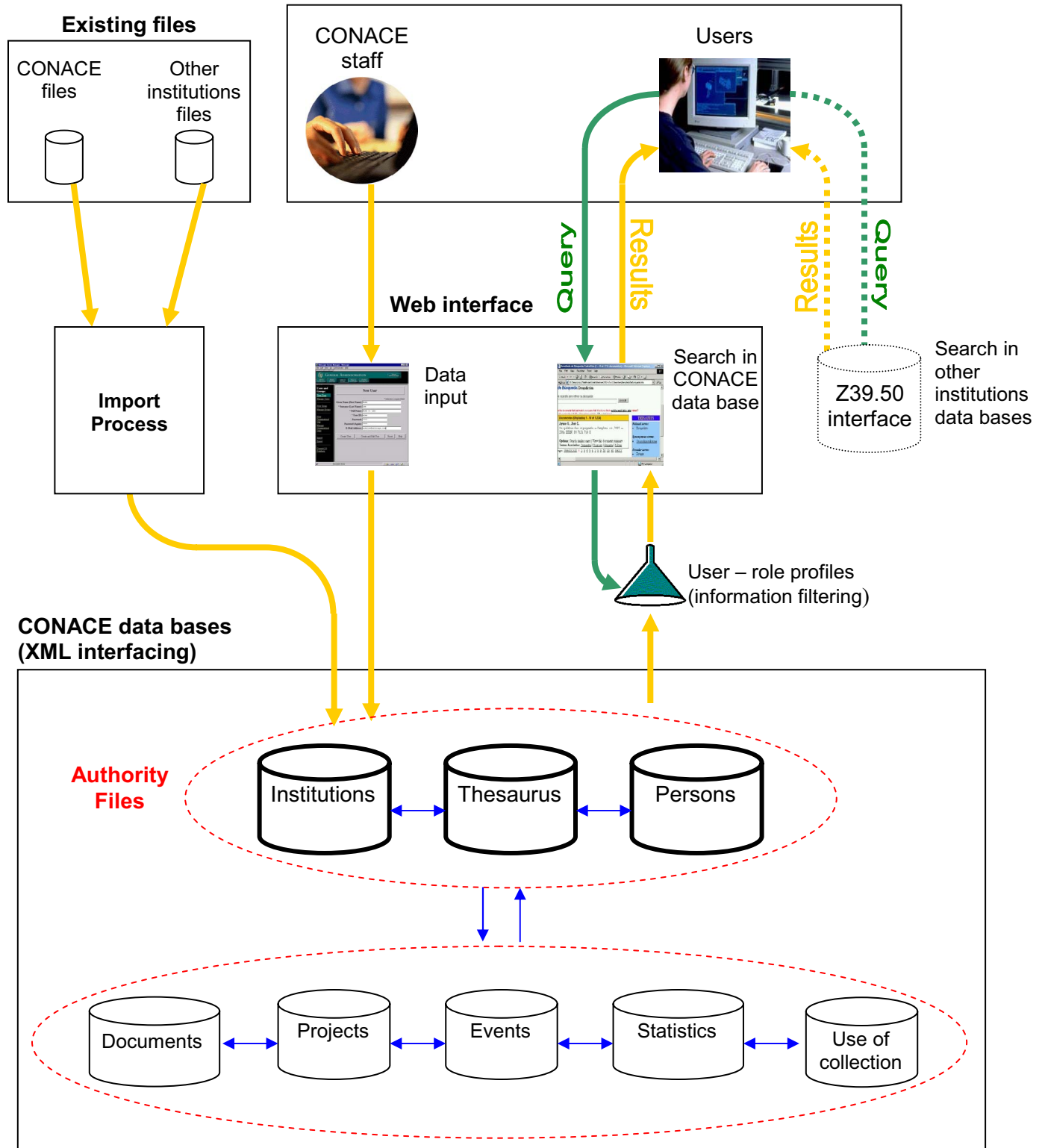
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- [8] Web Ontology (WebONT) Working Group Charter. <http://www.w3.org/2001/sw/WebOnt/charter> [standards for vocabulary metadata, interchange, and interoperability]

Table 1
Users typology according to information needs

Types of material	Primary or secondary school student	Teachers	Parents	Researchers, professors, consultants, dissertators	Health professionals	Rehabilitation program operators	Internacional organization officials	Executive, Legislative and Judicial staff members	Public institutions planners	Program officials	Program operators	Journalists	Community organization leaders
Data base		x			x		x		x	x			
Catalog		x			x				x				
Agreements, internacional treaties		x		x			x	x	x			x	
Theorical development				x									
General dissemination	x	x	x			x			x		x	x	x
Institution directory	x		x	x	x		x	x	x	x	x	x	x
People directory			x		x			x	x	x	x	x	x
Technical report				x									
Statistics		x	x	x	x		x	x	x	x	x	x	x
Strategies, policies							x	x	x			x	
Epidemiological studies				x	x		x	x	x	x		x	x
Program evaluation					x		x			x	x	x	x
Info-sheet	x	x	x	x	x	x						x	
Progran evaluation tools				x	x						x		
Treatment evaluation tools					x								
Personal data collection data					x								
Book	x	x	x		x								
Manuals	x	x				x							x
Bookmarks, fliers	x	x				x					x		
National plans		x		x	x		x	x	x	x			x
Portal, web	x		x		x						x	x	x
Posters	x	x				x			x	x	x	x	x
Action programs							x		x				
Research reports – study				x	x						x		x
Reports on methodologies				x		x				x			
Journals	x	x											
Software	x												
Table – statistical summary		x		x					x	x	x		x
Treaties		x		x					x	x			

**Graph 1- CDI-CONACE web site
Infrastructure for data bases creation and query systems**



Graph 2 – Filtering and limiting results / Thesaurus aided search

CONACE Data Bases Documentation and Information Center (CDI)

Subject Search ([Help](#))

Also available: [General search](#)
[Advanced search](#)

To obtain more relevant information, please choose the option(s) that better reflect the purpose of your search ([Help](#))

<input checked="" type="checkbox"/> Homework	<input checked="" type="checkbox"/> Policies, plans, strategies, evaluation
<input checked="" type="checkbox"/> Research	<input checked="" type="checkbox"/> Workshop preparation
<input checked="" type="checkbox"/> Dissemination	<input checked="" type="checkbox"/> Support to relatives

Abuso de drogas Accidentes Acido Adicciones Adolescentes Alcaloide Alcohol Alcoholismo laboral	Adolescentes Alcoholismo laboral	<input type="button" value="search"/>
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Limit your search:

<input type="checkbox"/> Digital material	<input checked="" type="checkbox"/> Printed material from/to
<input type="checkbox"/> In Spanish	Location: <input type="text" value="Chile"/>

Select data base

<input checked="" type="checkbox"/> Documents	<input type="checkbox"/> Statistics	<input checked="" type="checkbox"/> Press
<input type="checkbox"/> Projects	<input checked="" type="checkbox"/> Persons, contacts	<input checked="" type="checkbox"/> Events, meetings
<input checked="" type="checkbox"/> Institutions		

Select type of material

<input checked="" type="checkbox"/> Manual	<input type="checkbox"/> Debate	<input checked="" type="checkbox"/> Qualitative study
<input type="checkbox"/> Survey	<input checked="" type="checkbox"/> Analysis, evaluation	<input checked="" type="checkbox"/> Quantitative study
<input checked="" type="checkbox"/> Official report	<input checked="" type="checkbox"/> Campaign, dissemination	<input checked="" type="checkbox"/> Audiovisual

Graph 3 – Searching and thesaurus browsing CONACE Data Bases: Search results Documentation and Information Center (CDI):

Available: [General Search](#)
[Advanced Search](#)
[Subject Search](#)

Search Results: alcoholismo laboral
Add a new concept to refine your search:

alcoholismo laboral	Search
---------------------	--------

Only documents relevant to your search are shown. Do you prefer to classify them by [date](#)? You may also get the results in [XML](#) or [text](#) format

No	Date	Documents (Showing 1 - 10 out of 1,234)
1	01/05/1988	<p>Naveillán F., Pedro. Alcoholismo Laboral. -- 1a. ed. -- Santiago : Mutual de Seguridad, 1988. -- 61p. ISBN : 84-7151-710-8</p> <p>Opciones: Find similar pages See document See abstract Related subjects: Alcoholismo laboral Categoría Laboral Prevención</p>

Tesaurus

Related terms:

- [Interacción social](#)
- Alcohol-prevención

Synonyms:

- [Trabajo y Drogas](#)

Broader terms:

- [Alcohol](#)

Narrower terms:

- [Alcohol trabajador adolescente](#)

Other pages: [Previous](#) [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [20](#) [30](#) [Next](#)