
Authors’ Text for:
E-Government Access to Social Service Information:
State Web Resources for Domestic Violence Survivors

[sans tables]

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Abstract

This study provides the first nation-wide analysis of states’ e-government support for domestic violence survivors, identifying characteristics and patterns of domestic violence (DV) content and access to this content on all state government Web sites (50 states plus the District of Columbia). Using a systematic examination of click paths and site search results, DV content was located, examined, and codified in terms of information type (e.g., shelter access), accessibility (e.g., language), and type of authoring agency (e.g., law enforcement). General DV resources, such as hotline/referral services, were more prevalent than content related to specific needs, such as child custody. States provide substantially more information on immediate emergency needs, which are actually met at the local level, than on intermediate or long-term support. Accessibility was hampered by both cognitive concerns (e.g., English-only sites) and affective concerns (e.g., a tone which focused on data transmission rather than information use). Legal/law enforcement agencies, rather than social service or medical agencies, consistently provided the most information as well as the largest numbers of connections to other sites, both within and beyond the state government site.
Introduction

The profound personal, health, and economic consequences of domestic violence (DV) continue to destroy the lives of survivors and take a toll on society at large. Including stalking, verbal abuse, sexual assault, rape, beatings, and murder, almost 5.3 million victimizations by intimate partners occur every year among U.S. women age 18 and older (Centers for Disease Control [CDC], 2003). The deep impact of DV on all aspects of society encourages governmental involvement with every facet of the problem.

In reference to DV or any other social problem, however, government initiatives in using the Internet as a primary channel for social service support can be problematic. An understandable drive for efficiency may overpower the identification of effective means of serving people with variable levels of practical and intellectual access to the Internet (McNeal, Tolbert, Mossberger, & Dotterweich, 2003). Individualized departmental service silos (Andersen, 2004; Atkinson & Leigh, 2003; Eggers, 2005) continue to prevent the one-stop-shopping (Gouscos, Lambrou, Mentzas, & Georgiadis, 2003; Tambouris & Wimmer, 2005) that would best support the complex needs of citizens in crisis. Nevertheless, the 24/7 access of Web-based service directories can support point-of-need searching (Foster & McGee, 2005).

This study of the nature and depth of state government information support for DV survivors utilizes an Everyday Life Information Seeking (ELIS) informed analytic framework. Future studies are needed to examine the usability of specific sites, to understand users’ actual experiences in information-seeking, and to analyze users’ experiences with a full range of web resources. As a baseline from which to work, however, the current study presents an analysis of state government information provision in light of the common needs of this in-crisis population. Understanding the current study requires an examination of four contextual elements: domestic violence, e-government, the ELIS model, and DV information-seeking behavior.

Context of Domestic Violence

Domestic violence occurs across all socioeconomic boundaries. Although women who live below the poverty line and young women are more likely to be abused, DV crosses every social, economic, educational, racial, and cultural divide (Heise & Garcia-Moreno, 2002; Wenzel, Tucker, Hambarsoomian, & Elliot, 2006). While survivors with jobs, few children, and higher educational levels are more likely to
have the fiscal means to obtain legal, mental health, and social service support, the crime itself is socially pervasive.

The economic and social consequences of this crime spread beyond the immediate survivors in terms of health care, educational, and business costs. Domestic violence survivors have 60% more health problems than do women with no abuse history (Campbell, Jones, Dienemann, Kub, Schollenberger, O’Campo, & Gielen, 2002). These health issues are obviously tied to the societal costs of DV, e.g., the over $4 billion in direct medical and mental health costs and the nearly $1.8 billion in lost productivity (CDC, 2003). The cycle of abuse in one generation perpetuates itself in the next; 40% to 60% of perpetrators who have children in their households also abuse those children, who often develop significant problems of their own (Goelman, 2004; Jarvis & Novaco, 2006).

Women, who constitute 85% of DV survivors, use multiple strategies to enhance their safety and that of their children, including contacting police, avoiding the abuser, and trying to end the relationship (Elizabeth, 2003; Goodkind, Sullivan, & Bybee, 2004). Their use of informal, social support systems can be more comfortable for them than the use of formal governmental systems, but these social support systems can also be unsympathetic and judgmental (Morrison et al., 2006).

Survivors’ problems include medical, legal, employment, and housing concerns for themselves and, in most cases, their children. The long-term physical and mental health consequences of DV include depression, undiagnosed head injury, chronic pain, substance abuse, and post-traumatic stress disorder (Dutton, Green, Kaltman, Roesch, Zeffiro, & Krause, 2006; Houry, Kaslow, & Thompson, 2005). Survivors have a 50% to 70% increase in “gynecological, central nervous system, and stress-related problems” (Campbell, Jones, Dienemann, Kub, Schollenberger, O’Campo, & Gielen, 2002, p. 1157). Seeking help can actually worsen these problems. For example, some survivors reported that seeking help left them feeling “guilty, depressed, anxious, distrustful of others, and reluctant to seek further help” (Campbell & Raja, 2005, p. 97). DV survivors who lessen contact with their abusers increase the possibility that they will be seriously injured or murdered (Campbell, Webster, Koziol-McLain, Block, Campbell, Curry, et al, 2003, p. 1089).

Context of E-government
E-government support services continue to gain momentum, as evidenced by the fact that the majority of U.S. cities now have Web sites (Brown & Schelin, 2005), but the effort still lacks clear standards for service efficacy. Many governments in the nascent stage of Internet resource development focus on a cautious transfer of extant material from print to online formats (Chatillon, 2005, p. 62). Controls for basic security and accuracy of digital records on a statewide basis are limited (Heeks, 2006). The essential bridge between providing information and facilitating transactions on a personalized level remains underdeveloped (Pieterson, Ebbers, & Dijk, 2007; Reddick, 2005).

Governmental involvement in DV survivor support lies primarily in three areas: law, health, and social services. Professionals in these arenas do not necessarily work together well, particularly law enforcement (Hochstein & Thurman, 2006, p. 457). Recognizing the significant impact of this crime on families, state agencies provide a network of services and resources to help individuals cope with and escape from abusive situations. Deliberately partnering with private agencies, governments produce information in multiple formats (Kelly, 2004; Kristin, 2004), such as literature mailings, library talks, information kiosks (Slack & Rowley, 2004), and an increasing array of digital resources (Domestic Violence Initiatives, 2003).

These formal information systems often serve as the referral point from which survivors and their supporters begin the information seeking process, referrals that are not always useful (Edwardsen & Morse, 2006; Peckover, 2003). Numerous studies confirm that survivors prefer using informal information and support networks (Bowker, 1983; Harris & Dewdney, 1994; Harris et al., 2001; Morrison, Luchok, Richter, & Parra-Medina, 2006; Wathen & Harris, 2003); however, formal information systems are used heavily by both survivors and their immediate support networks. E-government’s contributions to that formal information system are examined in this study.

Context of ELIS

This study’s theoretical framework lies in Reijo Savolainen’s “Everyday Life Information Seeking” (ELIS) model which posits that active information-seeking behavior can be used with varying degrees of efficacy to support problem-solving that maintains or develops a mastery of life (Savolainen, 1995, 1999,
2004). With its roots in Brenda Dervin’s theory of sense-making as an active, constructive process undertaken by an individual, ELIS places the impetus for an information search in the context of the individual’s affective and cognitive states. That combination of factors – cognitive and affective – influences the individual’s identification of a viable information structure, system, or strategy. Searching behaviors vary in relationship to information needs (e.g., need to find out how to apply for victim’s compensation), affective states (e.g., optimism regarding the clarity of e-government victim’s compensation application forms), cognitive mastery (e.g., the ability to navigate through a government Web site), and available resources (e.g., ready access to the Web via a “safe” computer, one which the abuser can not examine).

Context of DV information-seeking research

The primary groundbreaking analysis of DV information support was Roma Harris and Patricia Dewdney’s 1994 Barriers to Information: How Formal Help Systems Fail Battered Women. Conducted in Canada, the study combined a household survey with agency interviews to provide an in-depth analysis of system efficacy (Harris & Dewdney, 1994, pp. 61-69). Findings indicate that information was needed on 18 separate problems including a place to stay, emotional support, professional counseling, money, protection, medical attention, children’s needs, and transportation (p. 79). A total of 23 different agencies or services, including women’s shelters, police, pastors, the Salvation Army, community centers, taxi companies, and the YMCA, were expected to be able to provide help in solving these problems (p. 80).

The ELIS-driven “person-in-progressive-situation” (Allen, 1997) model directly builds on these information delivery problems by positioning information needs in both social and situational contexts in recognition of their influence on information-seeking behavior, preferences, and experiences. Applying the more fully developed person-in-progressive-situation model to the new situations that survivors face over time as they move towards safer living situations should create a more complete and accurate understanding of their information needs (Dunne, 2002, p. 344). The ELIS mastery-of-life through information seeking framework requires a reiterative approach when overlaid with the person-in-progressive-situation model. DV survivors certainly seek and use information to gain that gradual mastery over their lives although the rate at which they move through those progressive situations may fluctuate.
Initial analysis of survivors’ efforts to obtain concrete help indicates that they must move through at least three layers of service providers: emergency aid (e.g., police and emergency room staff), DV assistance centers (e.g., shelters and referral centers), and then an array of specialized support services (e.g., Women, Infants, and Children program, victim’s assistance, and mental health services) (Harris, Stickney, Grasley, Hutchinson, Greaves, & Boyd, 2001). To make these steps, women use a variety of information supports. For example, women involved in safety planning (i.e., structuring a plan to use in case of immediate physical danger) sought information from formal and informal sources with variable results (Goodkind, Sullivan, & Bybee, 2004, p. 520). In some situations, moving into the formal social service system as survivors of domestic violence results in “less control over their lives and being required to attend counseling, parenting classes, or go into a domestic violence shelter” and even the possible loss of their parental rights (Postmus, 2004, p. 113).

In summary, these four contextual elements (DV information, e-government, ELIS, and DV information-seeking behavior) informed the design of this study. In seeking to master everyday life, DV survivors face a concatenation of issues in terms of both immediate survival and long-term development. DV’s profound social and economic ramifications require a broad array of e-government information support systems. Accounting for two critical components of information problem-solving, the ELIS model serves this study by incorporating both DV survivors’ information needs and e-government’s provision of DV information. Finally, the scant literature on DV information seeking behavior emphasizes the importance of users’ preferences for informal information resources, as well as the progressive nature of the situations they experience. These four contextual elements influence the question formulation and methodology of this study.

Research Problems

Given the complexities of domestic violence survivor information needs and the efficacy of first-generation e-government support for social services, this effort to gauge the status quo provides a benchmark against which development may be charted. Many of the resources available to survivors are created, administered, or coordinated at the state level, from state laws defining domestic violence to state administration of federal aid programs. Do state governments provide legal, social service, and medical
information fully for these crime victims? Do state agencies communicate with each other regarding this crime? Are the fundamentals of addressing DV available at the state level? Are states providing digital doorways to local services? Where are the gaps? What services are readily accessible? While one study cannot address all relevant concerns, this study provides the first nation-wide analysis of states’ e-government support for domestic violence survivors. This study addresses the following research questions:

- What characteristics and patterns of domestic violence (DV) content exist on state government Web sites?
- What characteristics and patterns of information organization and navigation pathways exist in state government Web sites’ DV information?

Research Method

For the purposes of this analysis, the “content” mentioned in the first research question refers to 16 discrete pieces of information that are commonly identified in the DV research literature as valuable to a survivor’s effort to move towards a safer life. The “organization” in the second research question pertains to five categories or “arenas” into which the state agencies are grouped (e.g., Legal/Law Enforcement and Social Services) for the purpose of analysis. These 16 content categories and five arenas are delineated below. With official state Web sites as the unit of analysis, this study examines DV information and access. Utilizing content analysis, the sites for all 50 states and the District of Columbia were systematically analyzed within a two-month period to identify their DV content as well as the arenas in which the state agencies that promulgated that content were situated.

To address the first research question -- DV content -- 16 items of critical DV information formed the nucleus of a coding scheme. (See Appendix A for an annotated list of the 16 items.) These 16 content elements are important to survivors and their support networks, i.e., family members, friends, social service professionals, and first responders, such as police officers and health care workers. Developed directly from the DV research literature (e.g., Fugate, Landis, Riordan, Naureckas, & Engel, 2005; Goodkind, Sullivan, & Bybee, 2004; Harris et al., 2001; Peckover, 2003), these 16 content elements are particularly pertinent to governmental services in law enforcement, health care, and social services.
Of the 16 DV content elements, a subset of four particularly critical items was selected for further study: warning signs, safety plans, shelter information, and injunction information. Identified herein as *critical escape process items*, these four were highlighted because they are standard elements of the escape process and are generally recognized as essential for any move towards a safer life. All four are readily available for inclusion in state Web sites. Warning signs and safety plans are easily culled from national sources, such as the National Coalition Against Domestic Violence, while shelter and injunction information are managed on a statewide basis in concert with local efforts.

In addition to the 16 content elements, which include the four critical escape process items, the study considers five aspects of access to information: search engines, site maps, PDF formatted information, English-only sites, and cross-agency links. The first three information access considerations disproportionately affect inexperienced searchers. English-only sites are more likely to hamper access for immigrant populations. Given the overlapping information needs experienced by most survivors, the number of links from one government agency to another is of concern to all survivors.

Only the presence or absence on a state Web site of each of the 16 content elements and five access elements constituted the unit of observation for this study (Nuendorf, 2002); the total number of times that these items appeared was not noted. To be counted as DV information, all of these items had to appear within the context of domestic violence. For example, a state Web site may have featured child support information (item 8 in Appendix A); however, unless the information appeared within a domestic violence context, it did not meet the study criteria. Material was eliminated if it was clearly designed entirely for in-house use by state employees (e.g., regulations for processing DV victims’ compensation claims) or if it were clearly temporary (e.g., proclamations in support of DV month).

To address the research question pertaining to DV information and organizational patterns, four broad arenas delineated the location of content elements within each state Web site: *Legal/Law Enforcement, Health, Social Services*, and *Health and Social Services* combined. An additional arena, *Other*, ensured that the categories would be exhaustive. All examples of the 16 content elements were noted in terms of the arenas under which they appeared. For example, a social service agency on a state site might provide the warning signs of DV; such an item would be coded as “*Social Services/warning signs.*”
Additionally, for the four critical escape process items listed above, links from a Web page in one arena to coded information in another arena were tabulated. For example, if a state attorney general’s office (Legal/Law Enforcement) provided a link to escape planning in the family services department (Social Services), this link from one arena to another would be noted, in addition to coding for presence of the “escape plan” item. Links to outside sources were noted only when state Web pages explicitly identified the type of DV information to be found on an outside source’s site. For example, if a user could click on a link within a state Web site that was labeled shelter information in order to obtain such information from an outside source, that link was counted; however, general links providing the name of an organization but not identifying the organization as a DV shelter did not meet the study criteria since these limited listings failed to provide confirmation of the organization’s willingness to serve DV survivors.

A pilot test on four state Web sites led to refining the coding scheme. A second pilot test on three randomly selected states resulted in an initial inter-coder reliability rating between the two coders of 87%. Adjustments to the coding of arenas were followed by a third pilot test, producing an inter-coder reliability rating of 94%, exceeding the recommended 90% (Miles & Huberman, 1994).

Data Collection

Between late July and mid-September of 2006, the official Web site for each state was examined by a single researcher over a maximum of two consecutive days. The initial orientation to each Web site began with four searches from the state’s main Web page using each of the following terms: domestic violence, battered women, shelter, and abuse. Since some users might not be familiar with the use of quotation marks for phrase searching, the two-word search terms were entered without punctuation. The number of hits generated by each of the four search terms was noted for each of the 51 sites. In addition, a separate record was kept of the first 50 hits on each Web site for the search term “domestic violence.” (When such searches produced fewer than 50 hits, all resulting hits were analyzed.) These hits were then sorted to eliminate those that were not part of the official state Web site, e.g., links to off-site resources. The remaining Web pages were individually reviewed and, when appropriate, coded.

Building on that orientation, the second step in the data collection process involved an exploration of “click paths” to locate the sixteen DV content elements (see Appendix A) within each state’s Web site.
Site maps, when available, were used in concert with the original search on domestic violence results to identify both content and its location.

Each state Web site was examined to identify state agencies that fit into any of the four arenas: Legal/Law Enforcement, Health, Social Services, and Health and Social Services. The Other category was used when DV information was identified via site maps, site searches, or click paths but was not provided by an agency in one of the four primary arenas. When identified as fitting within an arena, each agency’s home page became the base for further examination of how the states organized their information. Every link on the agency home page was examined for DV information, and this process was repeated for five clicks away from the agency home page. Research indicates that Internet users typically stop after two clicks from their starting point (Fallows, 2005, 1); erring on the side of generosity, a 5-click path range was examined. For each page including DV information, data were gathered on the 16 content elements, the access characteristics related to language and PDF format, as well as the arenas in which all of these items fell. Cross-agency links and explicit links to outside sources were noted for the four critical escape process items: warning signs, shelter information, injunction information, and safety plans.

Data collection and recording on any particular state Web site were confined to a two-day period but could be repeated when necessary within those two days. If, for example, an agency’s part of the state Web site was down for a period, it was re-examined later in the two-day period to see if it had been restored. Data were recorded in Excel spreadsheets as well as narrative documents. The extensive notes on each URL, agency name, coding element, and other aspects of the data gathering process enhanced final data analysis by recording exemplars of particular concerns or strengths within the sites.

Findings

Four major findings about the characteristics and patterns of DV content, organization, and navigation pathways on state Web sites emerged from this study. The following section explores these findings in some depth.

Searching versus Click Path Exploration
To locate DV information two methods were employed: (1) key word searches of the state Web sites and (2) systematic click path exploration of agencies within the four arenas and, if appropriate, the fifth arena under “Other.” All 51 sites featured search functions on the home page. Key word searches produced a wide range in the number of hits retrieved, from 0 to 73,000 (Table 1).

Many of the first 50 hits at each site were not pertinent to the information needs of DV survivors. For example, “abuse” retrieved mentions of “elder abuse” and “child abuse.” Typically, the first 50 hits of the domestic violence search established a general sense of the arena(s) in which DV information existed. The first 10 hits usually lacked pertinent DV information but rather produced a great number of links leading to generalized sources (e.g., city, county, or university Web sites), internal governmental documents (e.g., annual reports, committee meeting agendas), legal documents (e.g., court cases, legislative bills), and short-term public notice materials (e.g., press releases, grant application notices).

Only 28 official state Web sites included site maps, and few led to substantial caches of DV information. Although the complexities of managing and even escaping from a domestic violence situation often require intervention from multiple governmental agencies, no single state agency tends to take responsibility for the overarching coordination of that intervention. Since site maps highlight large blocks of material rather than interconnected threads, the dearth of information on DV in state site maps is in keeping with common practice.

The five-level click path examinations of agencies that fit into the five arenas yielded greater quantities of information pertinent to this study than did the key word searches. The vast majority of paths did not lead to any of the 16 DV content elements. Despite the pervasive impact of domestic violence on the work of law enforcement, social services, and health services agencies, it remains but one of many responsibilities. As Table 2 indicates, however, when paths led to one of the four critical escape process items, they were far more likely to be located within the law enforcement arena.

Of the 430 productive click-paths, 56% were found in the law arena, 21% in “other” arenas, 10% in the social service arena, 8% in the health/social service arena, and 5% in the health arena. Clearly states are
providing critical information about domestic violence primarily from the law enforcement perspective despite the manifold social and health aspects of this complex problem.

These click-paths were of different lengths ranging from one (i.e., information available directly on the agency home page) to five (i.e., information found five clicks away from the agency home-page). The majority of the 430 paths delineated in Table 2, above, were relatively short, as Table 3 indicates.

[Table 3]
For all four content elements, the majority of click-paths in all five arenas fell in the 2-click, 3-click, or 4-click range with most items requiring 3 clicks.

The overarching distribution of these four critical escape items found 56% of them in the Law arena and 37% at the 3-click level. Table 4 details this distribution.

[Table 4]
With 65% of the information available within 3 clicks of an agency’s homepage, these four critical elements are, when available at all, at a fairly reasonable distance from at least one possible starting point. Whether or not DV survivors would find the correct agency at which to start their search is, of course, an entirely separate question.

Content Elements
Some of the 16 content elements were present in multiple agencies within multiple arenas, such as the hotline referral. Others, however, were absent entirely from most arenas. Indeed, several elements were absent entirely from many state Web sites.

If any agency within a state Web site included the content element, then the state Web site was credited with its inclusion. The unit of analysis in Table 5 is, therefore, a state Web site, as opposed to an arena. Since the maximum number of times a state site could be credited for including a content element is once, the highest possible total is 51. In rank order, from most often included to least often included, the 16 content elements delineated in Appendix A are listed in Table 5.

[Table 5]
These content elements support three critical requirements: receiving emergency assistance (items ranked 1, 2, 3, 7, and 11), recognizing the problem (items ranked 4, 6, 8, and 10), and building long-term
independence (items ranked 5, 9, 12, 13, 14, 15, and 16). The five content elements pertaining to emergency assistance were presented on a mean of 39.0 Web sites; although not universal, they were most common. The four content elements pertaining to problem recognition were presented on a mean of 35.5 Web sites. Recognizing the problem as such, i.e., DV being outside of the social norm and within the bounds of criminal law, is generally considered critical to successful separation from a DV environment, yet these elements were not freely available. The seven content elements pertaining to building independence were presented on a mean of 18.4 Web sites. Although often essential to a long-term move towards economic independence, physical health, mental recovery, and independent living, these elements pertain to information which is needed by many citizens for reasons that have nothing to do with DV. States may have the information available but not frame it in the context of support for DV survivors.

The number of arenas featuring each content element also varied considerably. Each of the 16 content elements had the potential to appear in all 51 Web sites and, within each Web site, in all five arenas; this created the possibility of 255 appearances of each of the 16 content elements. Table 6 lists the number and percentage of times each content element appeared at least once within an arena.

Table 6

Content elements related to receiving emergency assistance (items ranked 1, 2, 6, 8, and 13) total 326 and were presented on a mean of 65.2 of the 255 possible arenas. The elements pertaining to problem recognition (items ranked 3, 5, 7, and 10) total 228 and were presented on a mean of 57 of the arenas. Finally, the elements which support long-term independence construction (items ranked 4, 9, 11, 12, 14, 15, and 16) total 176 and were presented on a mean of 25.1 of the arenas. Like the overall Web sites, individual arenas emphasized emergency assistance information more than problem recognition and significantly more than building independence.

The differences in ranking content element appearance in Web sites and arenas lie in the mid-range items. Both analyses agree on the top two items (hotlines and local shelters), the middle two items (mental health and state DV facts), and the lowest three items (child custody, jobs, and substance abuse). The middle-range items -- items three to eight and eleven to thirteen-- include all the variations. For example, injunction information ranked third on the Web site list and sixth on the arena list.
Web sites addressed general information more frequently than specific information. Seventy-six percent provided general statistics and facts about DV, whereas only 55% provided state-specific DV statistics and facts. Referral/hotline information and shelter information, both serving as general DV gateways to multiple forms of specific DV information, were present on 100% and 96% of Web sites, respectively. In contrast, referral information addressing specific needs, such as child support, child custody, job information/job training, medical facilities, mental health, and substance abuse, was present on 29%, 25%, 22%, 29%, 55%, and 12% of the state sites, respectively.

Rarely available, cyber safety information typically included a statement warning that computer activity can be monitored, a brief list of instructions about clearing the computer’s cache, a link to the American Bar Association’s information on cyber safety, and/or a message encouraging people to use a “safer” (not safe) computer at a library or a friend’s home. Few states offered a one-click “escape” button such as those found on New York State’s Office for the Prevention of Domestic Violence and Maryland’s Attorney General’s page for the Family Violence Council.

Access

In addition to content elements, specific access issues affect DV survivors, particularly those individuals with limited access to and familiarity with the Web. For example, 48 of 51 Web sites included DV information in PDF format. The PDF format can be problematic for any novice user, but DV survivors face the additional problem of cyber-safety. Even if they learn to erase their trails by clearing a cache or history, they may not know how to clear the downloaded files that leave a cyber trail for an abuser to follow.

Language, with its connections to both literacy and cultural norms, is a key access issue for the many immigrants who survive DV. Twenty-nine out of 51 Web sites featured information in a language other than English at least one time. Spanish was the most common foreign language. The foreign languages found on a Web site typically addressed the needs of that state’s more predominant ethnic groups. Washington State, for example, presented information in Cambodian, Chinese, Korean, Laotian, Russian, Spanish, and Vietnamese. These languages are spoken in at least 8.9% of Washington homes (U.S. Census Bureau, 2000a).
Two of the other three access issues (site maps and search hits) have been addressed earlier. The final access issue, cross-agency links, will be detailed more specifically below but can be characterized as ineffective. The silo approach to state Web site management could well hinder effective information access for DV survivors and members of their support networks.

**Content Organization**

Since state agencies promulgate their own DV information efforts with minimal coordination with other state agencies, the overall distribution of those efforts across agencies provides insights into state government perspectives on responding to this criminal and social concern. An analysis of the intersection of the 16 DV content elements and the five individual arenas revealed two primary patterns. First, the thrust of state government information dissemination on domestic violence originates in the **Legal/Law Enforcement** arena. Providing more types of DV content than other arenas, criminal justice agencies emerged as the predominant initiators of connections to other arenas as well as to outside sources. Second, the primary content element of state government information dissemination on domestic violence is that of hotline referrals. This emergency-oriented information was more likely than any other item to appear in all five arenas.

The coverage of all 16 DV content elements varied considerably among the five arenas. Each content element could appear a maximum of 51 times in each individual arena. All 16 DV content elements combined could, therefore, appear within one arena for each of the 51 Web sites for a total of 816 times. As Table 7 indicates, more of the elements appeared in the **Law** arena than in the **Health, Social Services**, and **Health & Social Services** arenas combined.

[Table 7]

Job training and substance abuse were the only two DV information elements covered more thoroughly outside of the **Law** arena than within it. In all arenas, however, information was missing far more often than it was provided.

The most commonly available information within each arena indicates the approach taken towards DV information dissemination. Table 8 notes the top three content elements in each arena. Even these
items were not available on all 51 Web sites. The Law arena’s provision of hotline information was most nearly complete with its availability on 46 sites.

[Table 8]

All arenas placed the greatest emphasis on providing hotline/referral service information. In each arena, general information about identifying the problem and seeking emergency assistance took precedence over context-specific information. For example, Health arenas focused on general DV information, such as hotline referral services, general statistics and facts, and defining DV, instead of specific health-related information, such as contact information for mental and medical health facilities.

Given the powerful role that the four critical escape process items (warning signs, shelter information, injunction information, and safety planning) play in effecting a safer exit from DV situations, these four items were examined to determine if connections existed between arenas and from arenas to outside sources. Unfortunately, very few connections existed. Since most arenas in most states lacked coverage of all four critical elements, those arenas not providing the information might be expected to mitigate this problem by linking to agencies which provided the information. Nevertheless, silos constituted the most common organizational pattern.

Thirty-seven states organized their critical DV content within silos, making no connections across arenas or providing explicit links to outside sources. While it is encouraging to note the availability of the information in these 37 states, the size and complexity of state government Web sites would seem to require effective use of these cross-arena links. Since DV survivors may well be focused on their social service and/or health needs, having these critical information elements locked in the silos of law enforcement complicates survivors’ search efforts unnecessarily.

The minimal efforts at cross-linking indicate that the efforts were not part of an overarching approach to supplying DV information but were, more likely, the result of ad hoc decisions. Three states used at least one cross-link between arenas; none included links to outside sources. In addition, three other states cross-linked arenas and included one or more links to DV information on an outside source’s Web page. Agencies in eight states linked to at least one outside source but did not provide any links among arenas. In the 14 cases where one arena linked to another, the connection consisted of one-way links only.
Discussion and Recommendations

Using Everyday Life Information Seeking (ELIS) as a conceptual framework, this study examined the nature and organization of domestic violence (DV) information on state government Web sites in terms of DV survivor information needs. Although every Web site provided some DV information, significant variations occurred in the content, level of coverage, information location, and ease of access. Using existing technology and implementing policy initiatives could provide more effective access for survivors and members of their support networks, particularly if changes are rooted in the ELIS principles of recognizing context (e.g., domestic violence), individual situation (e.g., trying to determine whether or not a spouse’s actions constitute abuse), and application of information to real-world problems (e.g., finding out how to file a protective order without alerting an abuser to the effort).

Although states tend to provide general information, an ELIS-informed examination of survivors’ needs reveals their search for highly specific, local information that they can actively use in problem-solving. Survivors and their supporters often need local, accurate, and in-depth information to prepare for action that might, ultimately, take place at a moment of crisis. The natural tension between the state’s ability to maintain substantive, accurate descriptions of constantly-evolving, unevenly-funded, and sometimes ad hoc social services on a local level and the survivor’s need for detailed, current data certainly precludes simple answers. However, improving service may require states to cede control of some content to local agencies. Indeed, general DV information (e.g., warning signs of abuse) is more frequently available on state government Web sites than is detailed, local information (e.g., descriptions of medical facilities). Posting general information is a highly efficient but not a highly effective means of addressing DV concerns. The state sites could, however, serve as information clearinghouses through the use of more interactive data management techniques by permitting agencies to adjust their own entries in the state’s site. Alternatively, coordinated efforts with the United Way’s development of local social service databases could provide access to information for the savvy searcher. Referrals to local public libraries could also help, at least in areas funded well enough to provide professional services. Librarians could assist survivors in developing cyber-safety awareness, online search skills, Web navigation skills, and information management abilities. Ideally, a combination of all three techniques (local agency data input, United Way coordination, and public library referral) could mitigate the tension between the state’s
generalized approach to information dissemination and the survivor’s need for access to focused, local information.

States locate most DV information in their legal/law enforcement arenas. Building on the ELIS approach, service can certainly be improved by revising that location. ELIS suggests that survivor information searches center on the basics of daily living but states frame their support in terms of legal obligations, despite the personal, economic, and health consequences of DV. Compartmentalizing a complex issue undermines the significance of the non-legal issues that DV survivors experience and ignores the fact that successful removal from a dangerous situation requires far more of survivors than their active cooperation with law enforcement’s efforts to address the criminal aspects of the problem. Taking a more holistic approach by acknowledging DV’s layered consequences will help people find useful information within multiple arenas. Helping individuals cross from one state agency to another where appropriate can support the development of self-efficacy on an individual level, a quality that abusers spend years undermining.

The service implications of access concerns are particularly complex in that they involve survivors’ cognitions, affects, and behaviors. While the funding, e-government standards, and political support needed to effect these changes may not be available in all states, the technology is certainly up to the task.

The primary cognitive access issues affecting DV survivors are both simple and intractable, i.e., language and searching. An estimated 18% of the American population, and one of the most vulnerable sub-populations of DV survivors, is non-English speaking (U.S. Census Bureau, 2000b). Locating any formal information support is extremely difficult for these individuals, as is convincing people to take them seriously enough to provide help. Information explicitly for immigrant and non-English speaking populations was often written only in English, such as a description of the rights of immigrants to bring interpreters to court during DV actions. Providing information in the languages most commonly spoken/read in each state would be a tremendous boon to immigrant and non-English speaking populations.

Searching skills certainly improve both recall and precision, but such skills are not universally enjoyed. Those with low incomes (and, therefore, less ready Internet access) and little education are disproportionately represented within the DV survivor population. Robust site maps and supportive search
features can be critical for a population whose searching skills are unsophisticated. The main foci of site maps should be reconsidered to address these needs. The current site maps are clearly engineered from the perspective of the agency, not from the perspective of a possible user. A problem perspective (e.g., “How can I feed my children if I leave my abuser?”) and a common service perspective (e.g., “Where do I go to get a legal order to make my abuser stay away from me and my kids?”) would both fit the ELIS perspective more effectively.

Although not a primary focus of this study, one affective access issue appeared with such intensity that it certainly merits formal study. Affective tone is critical in most information delivery but particularly so for this population. Survivors experience fear, low self-confidence, anger, frustration, and – as they interact with numerous social service and law enforcement agencies – a repeated loss of their privacy. Information framed in complicated sentences and loaded with technical jargon can alienate users by presenting a judgmental, cold, impersonal, or unwelcoming tone. Encasing useful data (e.g., shelter descriptions and phone numbers) in affectively warm contexts is easily done with the use of second person singular pronouns, simple sentence structure, and a basic vocabulary, such as the following examples used in the Florida, Arizona, Massachusetts, New York, and Texas sites: “You are not alone,” “You did nothing to deserve to be hurt,” and “Help is available for you.” As the ELIS approach indicates, information that is perceived as viable for daily problem-solving must fit comfortably with the user’s affective state. When DV information is presented with warmth or, at least, tact, then it supports mastery by reducing the already heightened affective tensions inherent in a personal crisis situation.

Behavioral access issues are two-fold but connected: the use of PDF items and cyber-safety. PDF documents hinder information access in multiple ways. First, users are required to download Adobe Acrobat Reader in order to view such files. Certainly the downloading time for a PDF document is often longer than the downloading time for a standard html page, time that survivors may not have when trying to avoid their abusers. Some PDF documents were difficult to read because they were scanned brochures that required users to rotate pages repeatedly in order to read the information, or they were booklets designed as print resources, thereby requiring users to scroll throughout the document when the document’s pages were not in numerical order. And, as already noted, all of that activity exposes survivors to the risk of abusers tracking their actions online.
That basic lack of cyber-safety awareness pervaded the sites. Only sixteen state Web sites recognized a need for cyber safety. All states should explain the need for safe Internet use and should provide a one-click escape feature on every page containing DV information. Among the states that made an effort to protect survivors, the one-click escape features were often small in size and required users to have rapid reflexes in order to exit pages quickly; for those recovering from blackened eyes and injuries to their arms and hands, that kind of rapid response may be literally impossible. The cyber-safety features should be readily noticeable and available. The destination site should be a page with few graphics requiring low loading time to speed access for users with dial-up connections.

In terms of e-government development, the most profound implication of this study concerns the lack of cohesion in e-government’s approach to social problem service provision. Ultimately, e-government must develop a more thoughtfully orchestrated approach to addressing social problems. The findings of this study indicate that e-government agencies tend to function in isolation with regard to DV information. If individual agencies work from an ELIS-informed focus on the complex needs of DV survivors, then they will naturally develop an integrated approach to service provision and information dissemination. The value of such an approach is that it makes agencies more effective, and, in consequence, the potential to develop survivor self-sufficiency is strengthened. Resources provided by e-government must be comprehensive and accessible in order to promote survivors’ abilities to effectively use government-provided information and services to meet their everyday life needs.

*Future research*

This is the first national study of service to DV survivors from all 51 state Web sites. Three fundamental efforts need to follow: usability testing of current sites, user-based template development to augment or restructure future sites, and public policy review to guide site design. The array of information items needed and provided, as well as the range of potential users, combine to create a complex set of cognitive, affective, and behavioral access concerns. Is it feasible to design a single site that meets the needs of DV survivors, their families, their medical caregivers, local police, state agency employees, and safe-house staff? Given the potentially lethal consequences of abusers tracking their victims’ efforts to obtain information, which cyber-safety support mechanisms are most effective in erasing search paths and downloaded files? Finally, careful examination of the language used in the sites should enhance their
usability. In addition to the usual cognitive problems arising from an effort to interact with legal, medical, and computer technology jargon, DV survivors may also face judgmental, cold, and unsupportive language that intimidates or discourages them from continuing to seek help.

States are making progress in providing DV information, but there is still substantial room for improvement. Departmental silos should be replaced with well-connected, one-stop-shopping for survivors as well as those who work to help them move towards safer lives. Multi-directional connections should be enhanced among national, state, and local agencies. The potential for e-governments to actively minimize the impact of domestic violence is well worth further effort.

Research to determine best practices for establishing a cohesive social problem service provision within e-government is essential. The ELIS-informed models necessary to this work cannot be developed by agencies in isolation or in the absence of users. In developing stronger e-government responses to social problems and personal crisis situations, it would be useful to continue focusing on the needs and life experiences of DV survivors because their problems encompass many of the daily life issues faced by citizens experiencing other crisis situations. DV survivors have complex social, legal, and health needs that individual agencies alone cannot address. Often times these needs overlap, so an integrated approach requires a focus on situations, not on individual information problems.

Finally, moving beyond the purview of state government information dissemination, the original Dewdney and Harris findings merit reexamination in light of the Internet’s vast potential. Their essentially pre-Internet study found that people preferred informal information sources for solving a set of 18 problems. Studies that work directly with survivors could assess the current viability of those findings in terms of the Internet’s influence on information norms and expectations. Given the Internet’s capacity for developing a sense of privacy (Suler, 2004) in information seeking, its blend of the formal (e.g., government forms) and informal (e.g., blogs on DV experiences and bulletin boards of survivor support), and its increasing ubiquity, we need to look again at survivors’ preferences. Where would they go for what kind of information? When the ease of a chat room’s informality is readily available, what information needs do survivors most commonly address? The ELIS approach, particularly the person-in-progressive-situation model, provides a powerful analytic tool for developing a deeper understanding of domestic violence survivors’ information experiences. Naturalistic studies of survivors striving to overcome
personal crisis situations will be well informed by constantly seeking to understand both the individuals and the often chaotic world in which they must function.
References


