

Infusing Web- Based Content Centers into an M.S.W. Curriculum:
A Faculty and Student Development Project

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ABSTRACT: Web-based content centers are collections of scholarly digital resources that can be used to support learning in a variety of contexts. Through a recent pilot project, faculty created web-based content centers to support key curriculum areas of an M.S.W. program. Additionally the project aimed at developing technology skills of faculty designers and student users of course support materials. Positive student learning outcomes and increased faculty use of technology resulted. Project outcomes also included the building of virtual learning communities.

Educational theorist Alan Guskin (1994) has challenged universities to undertake major transformations in order that they may survive as places where faculty members will wish to teach and students will thrive while engaging in the learning process. Guskin argued that faculty members need to redesign their role in the learning process, so that the essential parts of their relationships with students are preserved and even enhanced, and the grinding nature of academic work is reduced.

The alternative to the present role of faculty states the problem and challenge: *to create learning environments focused directly on activities that enhance student learning, we must restructure the role of faculty to maximize essential faculty-student interaction, integrate new technologies fully into the student learning process, and enhance student learning through peer interaction.* (Guskin, 1994, pp. 18-19)

Taking up Guskin's challenge, Portland State University, a comprehensive urban institution in the heart of a growing metropolitan area, launched a two-year project in 2000 which aimed at enhancing faculty vitality while increasing student learning. Small seed grants were given to schools and departments in order to create pilot projects that would stimulate faculty collaboration and produce innovative approaches to teaching and learning. The goal of the grants was to improve the quality of the academic experience for both faculty and students, without further draining resources (Tetreault, 2002).

The Graduate School of Social Work applied for and was awarded one of the faculty vitality grants (Modrcin & Brennan, 2000). Through a program of faculty and student development, the pilot project aimed at establishing web-based content centers in key curricular sequence and concentration areas of the M.S.W. program. The dual objectives of the project were to increase: (a) faculty fluency in the use of web-based course development materials, resulting in enhancement of courses through the use of interactive assignments and web-based conferencing capabilities, and (b) student learning through web-based contact with cutting-edge thinking in human services and personalized interchanges with faculty and social work professionals.

This paper will discuss the conceptual basis of the content centers, consider the transformation of learning exchanges between students and faculty engaged in social work education through the use of supportive technology, and describe the methodology of the project. We will briefly consider the expected outcomes of the project, and examine the focus topics of the content centers in the pilot project, and discuss the results of implementation of this project. Finally, we will examine the advantages of using collections of scholarly digital resources as well as explore ideas for the scholarship of teaching that flow from this type of instructional transformation.

CONTENT CENTERS: THEORY AND PRACTICE

The content centers were conceived of as web-based collections of scholarly digital resources that can be used to support learning in a variety of contexts. These content centers then could be thought of as aggregations of *learning objects* (Longmire, 2000). In a recent chapter in the field of instructional design theory, Wiley (2003) argued that a learning object should be defined as "any digital resource that can be reused to support learning" (p. 7). In his view learning objects were an important advance because faculty can take the same materials and make them widely available to learners in a variety of contexts.

The original thinking about learning objects came from Wayne Hodgins (2003) who watched his two children using the components of a set of LEGOsTM in very different ways: His daughter built a castle from

instructions, and his son constructed a robot from imagination. Both children were using plastic construction toy pieces that were shaped in nearly the same way, but engaged in different processes and created different products. Hodgins thought that pieces of knowledge available over the internet could also be used to enrich instruction by being put into modules versatile enough to be reused by students in a variety of contexts.

He put it this way:

As it struck me that both had their wonderfully different needs met equally well with these simple blocks of plastic, I began what has been almost ten years of refining a dream of a world where all "content" exists at just the right and lowest possible size, much like the individual blocks that make up LEGO™ systems. (Hodgins, 2003, p. 8)

Instead of plastic building blocks, our faculty's learning objects consisted of such course supports as: original curricular materials, web-based interactive assignments (Brooks, 1997), online interactive conferences around critical topics, multimedia archives, bibliographical sources, research project resources, and links to key human services websites (Holden, 2002). The learning objects were designed to be used in a wide variety of applications such as course work, research, or self-directed study (Dickinson & Stewart, 2001).

These ideas are closely related to object-oriented thinking in the field of computer science which values the creation of re-usable components that can be stored for multiple users (Wiley, 2003). For example, object-oriented programming for human services information systems might involve designing information about clients (identifiers, assessment data, or records of services received) that could be incorporated into different types of applications (evaluation reports, client billing, and case summaries).

In our terms, we wanted to create segments of content, which were less extensive than material for an entire course, and gather these segments into focus topics that would be readily available on the web. We believed that these modules could be accessed by students in multiple classes, by interested faculty looking for lecture resources, by our field instructors, and by any other learners who visited our school website. Our basic idea was to have faculty learn to design instructional modules and implement them so that they would be obtainable on web pages, and would support our core courses. To achieve this aim, project faculty met with colleagues teaching in the various sequences to identify learning needs of students, to discover potential on-line resources, and to develop activities, assignments, and other learning experiences for students that could be accessed through the web and "off-loaded" from in-class instruction time. With the assistance of technical specialists within the university, faculty involved in the project then developed

discrete web-based content modules for testing and subsequent implementation.

TRANSFORMATION OF LEARNING EXCHANGES

In addition to the establishment of content centers, the project also had a secondary objective: the transformation of interchanges between faculty and students, and students and their peers as a result of innovation in the use of web enhancements to courses. The idea of this transformation was based on faculty belief in the importance of taking an adult learning approach to the education of M.S.W. students. For example, in a social policy course, on-line groups of students who shared common interests around pending state legislative bills formed to practice skills in policy analysis. Students utilized the on-line content module to identify, track and analyze these bills, communicated and planned their analysis via real-time "chat rooms," and developed discrete web sites to inform other students regarding these bills, including interactive links for supplemental information and recommendations for further study and advocacy related to the issue. Given the adult learning perspective, the faculty role is as participant in the student's self-directed learning process in which the student takes over responsibility for guiding his or her own learning experience (Hiemestra, 1991), which happened in the state legislation assignment.

This perspective is in line with the educational philosophy of constructivism (Duffy & Cunningham, 1996) which argues that the student takes an active role in the process of constructing his or her knowledge rather than taking in information as it is presented. The constructivist faculty member works to assist in this process of construction rather than acting as the communicator of all knowledge. It is not necessary then, for faculty to spend hours lecturing to students who sit for hours taking notes and listening. Instead both faculty and students are involved as active participants in the learning process, which will have notably different outcomes for each learner.

For social work students who are in the process of acquiring professional knowledge, the ability to reassemble, and reconfigure their existing knowledge to meet new challenges in their social environment is critical. Cognitive flexibility, implied in a constructivist approach (Spiro, Feltovich, Jacobson, & Coulson, 1987), should be a key attribute of social work professionals who have to learn to use what they know in new ways to meet pressing contemporary social challenges. The use of collections of learning objects, such as those assembled in a content center, allows unstructured access to cognitive content and provides the opportunity to build new conceptualizations on the part of students (Bannan-Ritland, Dabbagh, & Murphy, 2003).

Learning through the use of content centers also requires faculty to spend less time delivering lecture material, and more time working through case materials, simulations, and real-life problems with students,

essentially changing the role of instructor. Instead of lecturer or expert, the faculty member serves as an *educational planner* with the student in the learning process, and functions in roles such as mentor, broker, and link with resources brought into the student's learning environment (Memmott & Brennan, 1997). It is in the learning environment that students connect each other with resources, and challenge each other through interchanges regarding learning projects. Students and faculty also have interchanges with specialists who have been termed *educational designers*. These educational designers are responsible for the technical requirements of creating and maintaining learning resources (Memmott & Brennan, 1997). In the case of our content center learning project, we had three educational designers involved: a systems analyst, a distance education instructional design specialist, and a librarian who was expert in information systems. These educational designers played important roles in the implementation of the content center project.

METHODOLOGY

Faculty Recruitment and Selection

The Content Center Project Committee, consisting of a cross-section of faculty and student representatives, presented the project concept to the faculty and invited applications of interest to be submitted. Interested faculty members submitted brief concept papers outlining their proposed content center. Faculty members were selected on the basis of their willingness to participate in development activities and their expertise in a particular sequence or concentration area in the M.S.W. program.

Faculty and Student Development Activities

Following selection of the faculty, development activities began with university-based experts in technology and instructional design. Selected faculty participated in training in the use of course support software, online library resources, web-based social work information sites, and specific techniques of interest to faculty such as video streaming. Participating faculty received summer stipends to compensate them for the time they spent enhancing their technical skills and developing course materials to be used in the fall of the next academic year.

Student development activities were planned by the Content Center Project Committee and are offered each fall term. Students were expected to master basic computer literacy, including the use of e-mail,

web searches, library online facilities, and course support software capabilities.

Development of Content Centers

Five web-based content centers were developed, each with a specific curricular focus: child welfare, foundation practice, advanced direct human service practice, social work policy, and field education. The lead faculty, responsible for the content development, invited dialog and material sharing within sequences and concentrations in the process of building of the web-based center. The web-based centers include scholarly materials such as web pages developed by faculty, links to key websites, web-based assignments, online interactive conferences around critical topics, and links to bibliographic resources.

As an illustration, one of the content modules initially developed supports the program's social welfare policy and history sequence, and was constructed after meetings of policy faculty around curricular supports they would find helpful. The policy on-line center provides access to national and international on-line resources for enhancing student learning activities. The site is divided into discrete pages representing a wide range of topical subjects to support class assignments and teaching activities (e.g., local, state, and national government resources; historical sites; social and political advocacy resources; population and social problem-specific resources, and social welfare related professional organizations, research institutions, and data sources). These on-line resource sites have subsequently become the material for web-based and web-enhanced assignments.

For example, one such assignment asks students to compare and contrast the elements of the New Deal and the Great Society programs and the social contexts of these two major milestones in American social welfare history. Students are directed to sites where they download and listen to audio files of speeches by Franklin Roosevelt and Lyndon Johnson regarding their respective programs and legislative initiatives, watch related downloadable video presentations by historians and policy analysts, and use documents from other web-based research sites to complete the assignment. Another assignment makes use of downloadable data from the U.S. Census bureau and local governmental resources to examine specific geographically-based community experiences and needs. Students download and manipulate information on poverty, local crime incidents, population/ethnicity, and other such variables to gain an understanding of the social dynamics of local neighborhoods and implications for social service policy and practice responses.

In addition to the opportunity for instructors to develop such major assignments for use in their courses, web-based resources are also used to provide "ice-breaker" experiences to inform later class lectures and

discussion. For example, one such "ice-breaker" directs students to an online interactive web site in which students try to meet the monthly material needs of a family on a budget based upon TANF and food stamps. This experience subsequently provides rich content for class discussion and student learning regarding life on public assistance and the difficult choices recipients are often forced to make. In a similar vein, another assignment uses U.N. data on world hunger along with U.S. census data to examine the notion of relative poverty and enhance class-based discussion and lecture. Such creative uses of web-based materials and resources provide instructors with new avenues to develop effective simulation activities *outside* of the classroom and subsequently connect and enhance depth of learning *inside* the classroom.

Technical Specification and Support of Content Centers

Web servers, which are maintained by the University's Office of Information Technologies, host the content centers. The content centers are integrated within the current structure of the Graduate School of Social Work's extensive web site, with links to sites also maintained by the school's affiliated research institutes and centers, including the national Research and Training Center on Family Support and Children's Mental Health. Each content center functions as a self-contained website which uses the overall style, colors and navigational format of the parent site. For example, the center on Gerontology and Social Work has a similar appearance and structure to other sub-websites of the school concerned with the MSW and the doctoral programs, but its content is limited to resources and information pertaining to social work practice with seniors. In addition a menu with links to each content center is featured on the main home page of the school's website, thereby facilitating easy "one-click" access to each center.

For integrated course material, Web CT was the development environment of choice. For other types of web development, web-authoring software such as Macromedia's Dreamweaver and imaging software such as Adobe's Photoshop or Live-Motion were also available for use. Technical support for this effort came from a number of sources: Web development training was offered by the University's Office of Information Technology, and in-house support was provided by the Information Technology staff of the Graduate School of Social Work and affiliated research organizations.

EXPECTED OUTCOMES

Student Outcomes

Content centers and web-based activities were designed to reduce the seat-time and lecture time

encountered by students and to diversify the type and scope of the learning experience. Interactive exchanges with course materials, human service experts, faculty, and other students allowed access to a greater variety of ideas and discussions than those available in a traditional classroom environment. Content centers with web-based resources provide an opportunity for students to seek information aligned with their own individualized learning needs and interests. This student-centered, student-directed learning endeavor not only expands the student's knowledge base but also enriches the student's capacity to seek knowledge to improve practice. Long range outcomes will be measured through alumni surveys. Graduates' frequency and type of technology use in their clinical, community, and management practices will be assessed.

Faculty Outcomes

Support for five main campus faculty in their efforts to use web-based technology coincided with six distance faculty developing web enhancements for their courses. Distance faculty members were supported in their development of course enhancements such as web-based simulation exercises, the use of streamed presentations, and on-line discussion groups (see Lynch, 2002). This combined effort created a faculty culture that promoted the use of technology in instruction and in the scholarship of teaching. Indicators of faculty success were: (a) the inclusion of technologically based activities in their instructional plans, (b) the substitution of student-centered on-line learning experiences for faculty-centered lecture hours, and (c) the production of scholarly presentations and papers focused on the use of technology in teaching.

FOCUS TOPICS IN CONTENT CENTERS

Child Welfare

The Child Welfare Content Center was developed in conjunction with the school's Child Welfare Partnership Graduate Education Program. The Child Welfare Partnership supports the school's current cohort of students in the Distance Graduate Education Option (DGEO), who receive specialized child welfare training. Faculty from the Graduate School of Social Work provide instruction for the DGEO primarily through on-site classes, which are supplemented with additional interactive television and web-based course supports. The Child Welfare Content Center is a valuable resource for the DGEO students and campus-based students as well. The center has extensive summary overviews of salient child welfare topics including adoption, protective services, and foster care. The adoption section, for example, covers

specific adoption issues such as transracial adoption, single parents, and gay and lesbian couples, intercountry adoption, children with special needs, and open adoption. Links to major websites concerning child welfare issues and services are also easily accessible. The content center's primary author conducted the research and review of the web-based materials referred to in the links.

Direct Human Services Practice

The Direct Human Services Practice content center represents an advanced practice concentration designed to prepare students for the practice of clinical social work in agencies serving individuals and families. The majority of the students enrolled in the master's program select this concentration for their advanced practice focus. One of the major goals of this concentration is to prepare students for the construction of their own social work practice framework. In the coursework, students are exposed to different individual and family systems theories and asked to critically apply theory to their clinical work in the field practicum setting. With only two quarters devoted to the understanding and application of clinical social work theory, the content center provides students with a "roadmap" of clinical social work theory. For instance, the content center's primary author who teaches in the advanced direct human services concentration has constructed a web page summarizing the differences between perspectives, models, and theories, also providing specific examples with scholarly references for further reading. The user-friendly descriptions and information access-point allows classroom time to be more focused on the specifics of theory and its application. Students and faculty visiting the center can also link with many major social work organizations and expert resources relevant to clinical practice. The index of websites is organized by populations (elderly, youth and families) and areas of practice (e.g., mental health and substance abuse).

Social Welfare History and Policy Resources

The Social Welfare History and Policy Resources Content Center represents the foundation policy sequence and the advanced policy-practice courses. This content center is divided into sections on history, policy-practice issues, social work organizations, government, and activism. Each section has an extensive number of links to on-line resources detailing crucial historical, political, and policy developments for the profession of social work. The history section links to 22 different websites including the photographic exhibits, such as the American Memory Exhibit at the Library of Congress and the Jacob Riis Collection from the Museum of the City of New York. The policy-practice section, organized by topics, includes links to over 200 different resources.

Generalist Practice

Generalist social work is the three-quarter sequence in foundation practice taken by all students in the masters program. The breadth of practice issues, skills, and theories necessary to cover make the curriculum particularly challenging for faculty to teach and students to absorb. The target audience of the generalist practice content center is both first year students and prospective applicants to the masters program. The content is designed to provide basic information about beginning social work practice. Individuals visiting the content center learn about the scope of social work practice by reading short summaries on basic social work skills for practice with individuals, families, groups, and communities, ecological systems perspective, values and ethics, and advocacy.

Field Education

An obvious choice for a content center and web-based activities is the field education component of the masters program. With over 250 field instructors at practicum sites across Oregon and Southwest Washington, communication to and from the school needs to be timely and efficient. The Field Education Content Center is the electronic distribution point for all field materials relevant to field instructors, field liaisons, and students. Field instructors can access and download the complete field manual and all necessary forms, including those for the learning agreement and evaluation. The M.S.W. Student Handbook is also made available to field instructors to inform them of crucial school and university policies. Practitioners considering becoming field instructors may download an application for submission. The content center is also a virtual "bulletin board" to post announcements of field instructor seminars and other continuing education opportunities provided by the school's alumni association. Summary materials submitted from the presenters are posted on the website. Topics include supervision, student-client endings, process recordings, and documentation. Students also frequent the center to read the field manual, assess information about potential placement sites, download placement request forms, and compose their learning agreements interactively.

RESULTS

The content centers have varied formats and target audiences, yet the results across the endeavors can be summarized into three primary themes: (a) improvement of student computer competency; (b)

enhancement of faculty computer-based teaching methods; and (c) building of virtual learning communities.

Student Technology Competency

Although many students entering graduate studies are comfortable with using a computer, it cannot be assumed that the knowledge and skill base in computer technology among the social work students is equal. Students in the masters program have differential experience using computer technology and not every student has a computer at home or work. To maximize the benefit from learning opportunities and demands created by the faculty's increased use of computer technology, students must be competent in computer usage to access, assess, and apply information (American Library Association, 2000).

Students' literacy and fluency with technology is evidenced by an understanding of core concepts, terminology, and operations associated with the use of a computer; the ability to function independently in seeking and organizing information; and the ability to communicate online. Students have improved their computer competency by attending the fall term training provided by the Content Center Project Committee, self-teaching, and informal peer-to-peer instruction. At present, no formal baseline measurement is taken, however, faculty have reported substantial growth in the proportion of students using the GSSW computer lab, an increased number of web-based references used in written assignments, and frequent email correspondence with faculty and peers. It is not unusual for students to initiate listserves in courses to communicate with peers about assignments and lecture material. Further indication of improved computer literacy comes from faculty accounts of using classroom time to discuss valuable websites, search engines, and correct format for referencing web-based materials in term papers.

Faculty Technology Competency

Lead faculty for the content centers gained competency and technical skills in computer technology. Almost without exception, faculty skilled in word processing and basic Internet use, such as email and search engines, had not employed available technology for teaching because they lacked specific training. The faculty attended several university-sponsored trainings to expand their knowledge and skill in areas of computer technology, such as course support software, video streaming, and webpage design. Newly acquired skills were used first to design and create the content centers. The training and application of the skills in authoring the materials and building the websites provided the lead faculty with new tools to integrate into their classroom teaching. The integration of computer-based technology into the traditional

classroom setting ranged from simply referring students to the content centers, to use of video streaming, to assigning a specific number of log-ons to online discussions as part of satisfying course requirements.

Lead faculty also served as a catalyst for change of the faculty-student culture. As models and resources to their colleagues, lead faculty have provided inspiration to faculty who had not yet incorporated technology into their teaching and helped bridge the gap to the increasingly younger student body who are more proficient and comfortable with the internet. The project overall has encouraged other faculty to add focus topics to the Graduate School of Social Work website. For example, sponsored by the Hartford Geriatric Enrichment Project, faculty with expertise in social work with older adults has created a content center listing significant resources for students and faculty. This focus topic links with the Institute on Aging of Portland State University which offers a Graduate Certificate in Gerontology, a program in which masters in social work students can enroll. The most recent focus topic included on the website is on Child Care-Work and Family. National and local child care policy and strategies are discussed and linked to relevant research and statistical information. Additional focus topics are in the planning stages, including one on school social work.

Virtual Learning Communities

An unintended outcome of the content centers has been an expansion of the school's learning community capacity. Prior to the project, the graduate school's website had served as a virtual learning community in a limited capacity, bringing together individuals with common interests in social work education and research, without the constraints of time, space, and geography (Kowch & Schwier, 1998). As such, information about the school and its programs within the university context was shared through the website and the audience responded with requests for further information. With the addition of the content centers, the activity of the virtual learning communities became more dynamic and interactive within the school and with others outside of the school who share similar interests about a variety of social welfare issues. Viability in the social work profession depends on the capacity to access new information and respond to immediate events and emerging social problems both locally and globally. The use of technology to connect to established networks is vital to these efforts. While virtual communities are challenging to quantify, it is anticipated the virtual boundaries of the community will continue to expand.

DISCUSSION

Content centers developed for social work education have the advantage of flexibility, customization, and

versatility. Based on learning objects, the content centers can meet the needs of students to have learning experiences that promote the flexible application and construction of new knowledge (Bannan-Ritland, Dabbagh, & Murphy, 2003). They also can promote adult learning through their ease of access, and their appeal to the self-regulated, self-directed learner, whether social work student or faculty member (Pintrich, 1995; Sandell & Hayes, 2002).

With a field such as social work, which has an extraordinarily short half-life of knowledge, the use of computer-based learning objects seems to be particularly important. Materials can be updated, and important new links can be added, as recent information goes on-line. Innovation doesn't have to be put off to the start of a new term.

The social work student and educator must be actively involved in shaping and interacting with this computer-based learning environment. As Scardamalia and colleagues put it: "The computer environment should not be providing the knowledge and intelligence to guide learning, it should be providing the facilitating structure and tools that enable students to make maximum use of their own intelligence and knowledge" (Scardamalia, Berieter, Brett, Burtis, Calhoun, & Smith, 1992, p. 54).

Putting learning objects, or content centers, at the service of social work education, is not without challenges. The construction of viable, easy to use systems of learning objects requires technological expertise that is not readily available. As Hodgins (2003) points out, "Indeed, there is likely an inverse relationship between the external simplicity and ease of use of any technology or system, and the underlying complexity required to make it happen" (p. 19). Schools of social work will need to recognize the possibilities in these new systems and invest in both technology and personnel that can make these systems happen in collaboration with faculty.

Finally, exciting new projects in the scholarship of teaching can be conducted using learning-object based course materials. Educational experiments that determine student outcomes from exposure to systems of learning objects, compared with student outcomes from conventional course supports, could determine the aspects of this approach that are most and least effective. For example, initial content analysis of efforts in the social policy sequence that have incorporated regular on-line discussion groups on policy-practice topics indicate a much higher degree of student to student interaction and depth of analysis than in the physical setting of the classroom. While in-class discussions and group interactions remain important and necessary, the physical and time constraints of the in-class setting are inherently restrictive.

Our experiences indicate that technologically enhanced learning objects have the potential to be not merely a *supplement* to the in-class learning experience, but rather an integrated and central component of such learning. Examination of the learning needs and styles of students and their relationship to outcomes from interaction with learning objects could also be fruitful. Given the need for flexibility of thinking and

creativity in the social work profession, it is also important to study the possible contributions of systems of learning objects to the attainment of cognitive flexibility and creative problem solving.

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