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# Connected Kids: Designing a Youth-Services Information System for Local Government

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## ABSTRACT

The Connected Kids research team has launched a working prototype of its youth-services information system and has further developed the prototype, adding customizable web pages, a document-entry function, and a new map interface and initiating development of additional search capabilities. To promote use of the system, we have provided support for registration and data-entry activities, launched a publicity campaign, and conducted system evaluations. To ensure long-term sustainability of the system, we have extended our registration and data-entry activities beyond our local community, continued our negotiations with our government partner, and initiated discussions with other government units and organizations.

## Categories and Subject Descriptors

J.4. [Computer Applications]: Social and Behavioral Sciences – Communication

## General Terms

Design, Theory, Experimentation

## Keywords

Digital Government, City Government, County Government, Information System, Youth Services

## 1. PROJECT BACKGROUND

Connected Kids is a youth-services information system for Troy and Rensselaer County, New York, currently accessible as a working prototype (<http://www.connectedkids.info/>, January 12, 2006). The information system is a collaborative venture between Rensselaer Polytechnic Institute and the City of Troy, in cooperation with Rensselaer County, the Troy and Lansingburgh public schools, and more than twenty youth-services organizations.

The information system includes a database of information about programs and activities for families and children, with sophisticated search capabilities, a distributed data-input function, and separate interfaces for parents, teens, and children; galleries of children's artwork and photos; and a distribution system that extends the services of the system to low-income families at the Troy Housing Authority. Such a system requires sophisticated

search technology and interface design and a social network to support registration and data entry, publicity, and long-term maintenance.

Within the past year, Connected Kids has extended its collaborations to include an active Advisory Board and additional organizational participants; launched a working prototype and added new features; and initiated a successful publicity campaign and system evaluation. Our challenges include more consistent data entry by organizational participants and long-term sustainability of the system. Our most promising opportunities lie, we believe, in enhanced search functionalities that have the potential to substantially increase the data accessible via the system and in continued outreach to additional government and organizational partners within the immediate area and the larger Capital Region.

## 2. GOALS AND ACCOMPLISHMENTS

Collaborations with government and organizational partners support the continued development of the system prototype and promotional activities such as data entry, publicity, and system evaluations.

### 2.1 Collaborations with Government and Organizational Partners

Collaborators include the City of Troy, an active and supportive Connected Kids Advisory Board, and a growing list of organizational participants. In the past, the City has provided consultation on system design, direct support, and cost sharing. Currently, the City provides a representative to serve on the Advisory Board and supports ongoing publicity efforts. The Advisory Board provides regular consultations on system registration and data entry, publicity, and long-term maintenance issues. Organizational participants include twelve members of the Advisory Board and approximately fifty current system registrants. Several members of the Advisory Board experiment regularly with the system, produce novel features that can be incorporated into the system, and identify new needs and opportunities for additional system enhancements

### 2.2 Development of the System Prototype

Recent developments of the system prototype include customizable web pages with a document-entry function, a new map interface, initial development of enhanced search

capabilities, and enhancements to the dissemination system and the art and photo galleries. The customizable web pages permit organizations to create their own World Wide Web presence and to post .doc or .txt documents, which are automatically converted to .pdf files and linked to these pages.

Other developments utilize technologies such as the Google API to enhance system functions (<http://www.google.com/apis/>, January 12, 2006). The new map interface, now in beta, permits users of the system to select an organization name or a point on a map and thereby access information by pointing and clicking rather than conventional searching or browsing. We are in the process of extending this interface with a more extensive search capability. We are also investigating the possibility of extending the search capability of the system to the webs of all registered organizations, including large webs, such as government or school webs, thereby greatly enhancing the quantity and quality of information accessible via the system, without additional data entry by organizational participants.

The dissemination system permits the Troy Housing Authority to distribute application forms, newsletters, and other information via its customizable web pages at four sites that currently have Internet connections, with more forthcoming as the connections become available (<http://www.connectedkids.info/tha/>, January 12, 2006). The galleries display slideshows of children's artwork and photos and now permit organizational users to create their own background images, which highlight their logos, color schemes, and other aspects of their organizational identities.

### 2.3 Promotional Activities

Promotional activities include support for registration and data entry, a publicity campaign, and ongoing system evaluations.

Support for the registration and data-entry activities includes regular email solicitations, data-entry sessions at one of our on-campus research labs, and on-site visits to organizational participants by members of the Connected Kids research team.

Publicity efforts include mass mailings of Connected Kids postcards, poster displays, and distribution of bookmarks to local school children (Figure 1. Connected Kids Bookmark).



Figure 1. Connected Kids Bookmark

These efforts also include displays and distribution of publicity materials at street fairs and block parties, community walks/runs and health fairs, the local Farmer's Market, and the most heralded of Troy events, the Victorian Stroll. Results of these efforts show heavy increases in traffic to the Connected Kids system, with spikes exceeding 2,500 hits per day in May, August, and November, 2005.

Ongoing system evaluations include sessions with both children and parents at the Troy Boys & Girls Club. Preliminary

assessments of the results show positive responses to the system and especially the galleries but underscore the need for regular and systematic data entry to keep the system live and active with information about current activities and programs for families and children.

## 3. CHALLENGES AND OPPORTUNITIES

Challenges include both increased registration and data entry and long-term sustainability of the system. These challenges might be addressed by continued support for the registration and data-entry activities and enhanced search capabilities and by the enlistment of additional government and organizational partners.

### 3.1 Registration and Data Entry

The data-entry procedure, via a simple, easy-to-use, copy-and-paste system function, does not appear to be prohibitively difficult in principle, but in practice it seems to require constant monitoring and attention by both the Connected Kids research team and the organizational participants. An enhanced search capability, utilizing a technology such as the Google API referenced above, might help to alleviate this difficulty to some degree by permitting users to search any and all webs linked to the Connected Kids system, whether or not the organizational participants have entered the contents of their webs as individual activities or programs. At the same time, the use of this technology would not preclude the entry of these individual items of information.

### 3.2 Long-Term Sustainability

The long-term sustainability issue is currently our most pressing issue since it is dependent upon a commitment from a government partner to maintain the information system on its own server and network connections for the indefinite future. As a response to this issue, we are continuing our discussions with the current administration at the City of Troy, now extending to a period of many months. We are also reaching out to other government units and organizations within the three-county Capital Region, both as potential system registrants and potential partners. This outreach, of course, addresses both the data-entry and the sustainability issues since it increases the amount of data potentially accessible in the system and the number of potential government and organizational partners. In addition, this outreach also extends the potential use of the system to the entire region, not just Troy and Rensselaer County.

We remain optimistic, therefore, that new developments in search technology and the institutional resources available to us within the larger Capital Region will provide opportunities to address the challenges of operating and sustaining the system as a valuable resource for families and children within both our local community and our larger three-county region.

## 4. ACKNOWLEDGMENTS

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