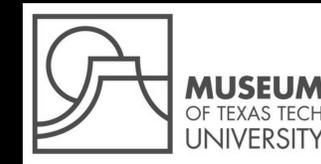


Expanding the Utility of Collections Management Software for Disaster Preparedness

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Abstract:

Disaster preparedness is recognized widely as a critical component of museum practice. The Museum of Texas Tech University uses Filemaker Pro to gather disaster preparedness information to produce an all-inclusive disaster plan. The process of planning is equally as important as the resulting plan because staff learn the institution's vulnerabilities, risks, and hazards, and identify response and preparedness measures. To involve as many staff as possible, streamline data collection, and facilitate institutional data analysis, the Museum uses paper and digital Filemaker Pro forms to capture risks, hazards, vulnerabilities, preventive measures, and emergency supplies from collections, administrative, educational, security, custodial, and support group viewpoints. Form completion occurs through three pathways: 1) non-digital; 2) physical to digital; 3) digital only. Project outcomes include efficient collection of information and enabling the production of a comprehensive plan. This data collection approach is applicable to other museums that have access to a customizable, database software.

Methods

Project objectives

The project objectives are: increase staff awareness of area-specific emergency preparedness strengths, weaknesses, and needs; utilize data to formulate a comprehensive emergency plan and inform emergency cart supply lists; collect data across multiple years; create database relationships so that data may be organized by institutional, divisional, by location/room, and by hazard/risk; increase staff awareness regarding general emergency preparedness topics; design a flexible database that allows collections staff and non-collections staff to input information related to risks, hazards, preventive measures; emergency supplies; and object priority lists; and design a simple user interface.

Database design

The database design process is iterative and informed directly by the project objectives. The database is password protected. The current database iteration uses five tabs (Figures 1-5) to organize emergency preparedness information. All together the tabs capture information on a room-by-room basis rather than a divisional level.

User testing and feedback

A subset of museum staff members test the functionality of the database and provide written feedback. User testing feedback informs changes to database design and the type of content captured.

Release database (Go live!)

Releasing of the database occurs once the user testing phase finishes. The database is accessible on a laptop, desktop, iPad, or as paper forms. Each user provides optional feedback regarding their experience working with the database. User evaluations inform future database edits and establish a baseline of comfort with and knowledge of emergency preparedness as it relates to their work area. Database entries are organized to facilitate emergency plan writing and identify supplies for the emergency carts through various reports. Institutional level and divisional level reports are retrievable in real-time for building operations and museum administrative staff.

Future use:

The database is designed to allow future data entry across multiple years to provide divisional, building operations, and museum administrative staff a historical snapshot of emergency preparedness. Staff may enter data at any time or several times during a year, but complete at least an annual update of information.

Database Design

Figure 1: Area Concerns Tab

Figure 2: Appliances Tab

Figure 3: Collections Tab

Figure 4: Chemicals Tab

Figure 5: Preventive Measures Tab

Discussion:

The project is currently in the user testing phase. User testing serves as a helpful remedial project evaluation. Five users from the following departments are participants: 1) history collection; 2) anthropology collection; 3) ethnology collection; 4) natural sciences collection; 5) education. Users are asked to enter three records and provide feedback regarding the functionality of the database, missing categories, confusing categories, and if their awareness of disaster preparedness issues change as a result of using the database. Thus far, user comments have identified simple typos and formatting discrepancies between different machines. Users have also provided very helpful comments regarding confusing portions of the database. Similarly, initial self-awareness comments are promising. Example user comments are listed in Table 1.

Table 1: User testing feedback examples

General Comments	Emergency preparedness awareness
How do I handle describing rooms that serve as temporary collection processing areas? Do I list the types of collections that could be present but aren't necessarily?	In terms of learning things, I wouldn't have thought to tell anyone about seemingly innocuous things like sewing machines or cell phone chargers, so that's interesting to know that those are something I should list....Also in collections storage, I would have thought that checking if objects were enclosed or in boxes etc. would make sense, but I hadn't thought about asking whether they were in foam supports or wrapped in paper - but I guess depending on the type of disaster and how the objects would need to be removed that becomes relevant? So my awareness was increased in terms of how that level of specific detail might be helpful. I also hadn't thought of checking whether collections housing was secured to the walls or floor, but I bet certain disasters that would make a big difference room?
How do we define "hazardous materials" in terms of collections objects? What all does that encompass?	
What if a chemical doesn't live in a room, but is occasionally used in a room?	

Conclusions and future plans:

In summary, user feedback helps refine database categories, correct errors, identify needed categories, and shape instructional information. The user testing phase continues as suggestions are incorporated and confusing sections solved so that the database will be as refined as possible before going live. Initial results are promising for emergency plan writing, emergency supply list creation, and the database yielding a positive impact on user emergency preparedness awareness.