

A Workshop for Accessible Crisis Information

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Abstract. Libraries have been pinpointed as a possible hub for information and safety during a crisis. We present a workshop design to contribute to the education of librarians with the goal to make them more able to provide inclusive and accessible information in a crisis. The workshop was carried out during a conference for librarians. The results from the workshop indicate that there is a need for further knowledge about methods and tools to make information accessible, as well as practical information about crisis preparedness. The workshop presented here could furthermore be improved upon by creating tailored personas and spending more time on the activity.

Keywords. Workshop, crisis preparedness, personas, universal design, variation cards

1. Introduction

People with disabilities are disproportionately at risk during crises or disasters due to different barriers they face when receiving critical information and other resources [1][2]. In such situations, accessible and timely information is crucial in maintaining the safety and well-being of all individuals.

During a crisis like, for example covid-19, inclusive and accessible crisis information is crucial [3]. Public libraries are well known for their community trust and play an important role in distributing information in times of crisis. They are also places of access to technology and information [4]. Research has highlighted that access to reliable, actionable information in accessible formats is critical for community resilience, especially for individuals with disabilities [5]. Public libraries, as community spaces and information hubs, are well positioned to bridge this gap by ensuring their facilities and services are designed with universal accessibility in mind [3].

In this article, we describe a workshop design aimed at improving the way librarians understand the diversity among their library patrons during times of emergency or crisis.

2. Background

A crisis (or disaster, we use these terms interchangeably) is an extraordinary event that potentially is harmful for humans and society [6], for example a severe snowstorm with infrastructural damage, a flooding or technological failure. Crisis management is usually

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described as having three phases with different activities connected to them [7]: pre-crisis (preparedness and planning), crisis (response and mitigation) and post-crisis (rebuilding and learning).

Workshops are meetings with structured tasks designed to create specialized results, new ideas or learning. According to [8], workshops can have three perspectives: workshops as *a means*, as *practice* or as *research methodology*. As the project in which the workshop was carried out has components of action research, it means that the workshop in question can be said to encompass all those perspectives to some degree.

In Sweden, the public library is listed as one of the primary places to open so called “safety points” during a crisis [9]. Public libraries have previously been identified as a possible inclusive information hub working to ensure that crisis information and emergency preparedness resources are available in a variety of accessible formats, such as large print, braille, audio recordings, and easy-to-read versions [3]. Furthermore, several municipalities in Sweden have created “information points”^{2,3} as a variant of the “safety point”, which are also often placed in libraries.

The workshop reported about here is aimed to be a pre-crisis exercise and tailored for the professional role of the librarian and the library as an information hub. It was held at a conference for librarians, in the context of a national project aimed at developing methods for co-design of crisis planning and mitigation based on universal design principles. It was one in a series of activities within the project, others being for example inclusive crisis exercises, workshops for planning personal crisis kits and scenario-based crisis planning.

3. Method and material

Participants voluntarily signed up for the workshop which was part of the regular conference program, and the 26 spaces were quickly filled. The majority were librarians, but there were also municipality officials. Participants were from different parts of Sweden and 18 different municipalities. The participants were asked to self-organize in 5 groups of 4-6 persons. The available time for the workshop was 1.5 hours and was facilitated by two of the authors.

3.1. Scenario and tasks

To prepare participants for the workshop tasks, a short introduction to crisis management and Universal Design was held. This was followed by a short group-wise warm-up exercise with discussion topics such as:

- What is your current experience and knowledge of accessible information?
- Have you experienced a crisis or disruption while at work? (preferably something not related to the recent pandemic)

The main task for the workshop revolved around a flooding scenario with escalating severeness (figure 1). The discussion topics covered per scenario step were:

- What information could citizens need during a societal crisis?
- How do you provide this information?

² <https://herrljunga.se/kommun-och-politik/civil-beredskap/informationspunkter.html>

³ <https://lund.se/kommun-och-politik/samhallsskydd-och-beredskap/om-nagot-hander---hemberedskap>

- How are you receiving your information in turn?
- Draw a card from either the persona set or the variation card deck (figure 2).
 - Do you need to do any adaptations of information for the person?
 - What needs to be adapted and how?
 - Do you have enough knowledge to be able to inform all your patrons?

Each group was given printouts with the tasks, a scenario with short texts and images, official crisis preparedness material from the Swedish Civil Contingencies Agency, the personas and variation cards (below), a big sheet of paper and post-it notes. The scenario was a series of images with text describing a flooding scenario, from slowly rising water to an electricity fall-out (Figure 1). The scenario was intended to be started by showing a rain-fall simulation-video, a method used in previous workshops, but it had to be scrapped due to time constraints.

The groups were asked to document their discussions. All material was also published on a learning web platform in accessible formats, to be possible to read digitally. After the group-wise discussions, a short presentation was made by each group to the other groups.



Figure 1 Images for scenario step 1 (rainy, windy, some train lines stop operating, water is slowly rising) and step 4 (electricity is falling out and eventually cut off to hinder more damage).

3.2. Personas and variation cards

Personas are descriptions of fictional persons extensively used in marketing and interaction design. There are multiple aims of using personas [10], in this context the most prominent are:

- Make user needs more explicit
- Build empathy for users
- Facilitate effective communication about users

The word “user” above, commonly used for the “stakeholder” or “customer” who will use a product or design, can be exchanged for “citizen” or “library visitor”. The personas chosen were a set from the Auckland Design Manual [11], that features 12 personas with various characteristics that highlight diversity in society, for example: an

adult with young children, an older person, a delivery person, a person in a wheelchair, a tourist etc.

The personas had little practical and specific information about user requirements, thus, the variation cards [12] were added to the material. The 9 cards are intended to visualize population diversity. The deck of cards was developed in a project aimed at including universal design for public procurement. The current main themes are 7: mobility, vision, cognition and perception, hearing, language and allergy. Each card contains general information, as well as more concrete points to consider. Additionally, there is an introduction card explaining universal design, as well as one “joker” card intending to remind the card user of the risk of using yourself as an implicit reference. The basic design of the card is flexible, allowing the addition of more cards to get an even better visualization of human diversity.



Figure 2 Back and front of the vision and mobility variation cards. English version.

3.3. Data collection

The data collection from the workshop consists of the collective documentation from the groups, on-the-fly observations and notes. The documentation from the groups (post-it-notes with issues, questions and solutions) were clustered in six categories.

4. Results

The concrete result of the workshop was a very mixed bag of observations and results, both about what can be concluded about crisis preparedness at the libraries, but also about the method used. In general, participants had heard about universal design, but were not familiar with definitions or details. The conference theme was targeted to accessibility and inclusion, and the interest for the risk workshop was good as it was filled quickly.

It was observed that participants were eager to discuss many aspects of crisis preparedness, and that different groups focused on different parts of the exercises. 4 of 5 groups carried out the tasks and used the material as intended, and one group got “stuck” on the preparation questions, but also shared practical tips about crisis preparedness among group members. Figure 3 shows an example of a group documentation. Notes from the 4 groups were collected and clustered in 6 categories: *Information need, information spreading, practical issues, organizational issues, collaboration with surrounding society, and other.*

Participants generally felt that they lacked preparedness, information and knowledge to contribute to crisis situations. For example, they did not feel informed what their role was during a crisis (*“Are we even a part of the municipality crisis organization?”*), and they didn’t know when and by whom they would be informed of a crisis and what was expected of them. However, being librarians, they were confident that their role was to actively search for information and help citizens. They also expressed that it was difficult to know the boundary between being a librarian in the crisis organization and being a conscientious citizen.

The use of the personas and variation cards highlighted the need for flexible information in different languages (*“We actually had tourists come to our library asking for information, like last week, but still we don’t have anything prepared for those occasions.”*). Other adapted types of information, like visual support images were also mentioned. There was also discussion about information needing to be “analog” (not digital) in case electricity falls out, but also that information boards etc. should be placed in such a way that it was easy to access and read in different heights.

Although the Auckland Design Manual personas were seen to work in some cases, and encouraged discussion about information accessibility, the results showed that the texts on them steered the discussion to physical accessibility, which in many cases was already in place due to regulations. It was also noted that the persona cards were used more than the variation cards, despite there being more context regarding the information needs in the variation cards.



Figure 3 Two personas from the Auckland Design Manual with numerous notes for the four scenario stages.

5. Discussion

The results from the workshop can be relevant in different ways, but we will here focus on the ones anchored in Universal Design and methods, and less on the ones that solely have to do with general crisis preparedness. If libraries are indeed to be able to contribute to inclusive information spreading in crises, it is very important that they feel able to do so also in their everyday work (when there is not a crisis). As it is now, the success of inclusive information spreading relies heavily on the knowledge and initiative of individual librarians. Providing targeted training and resources to empower librarians

(like this workshop) is one way to start. This could equip them with the skills and confidence to integrate accessibility considerations into their library's policies, programs, and, eventually, their emergency response plans. Additionally, appropriate resources, such as equipment for creating accessible materials are needed. Potentially libraries could be a place that has equipment like braille printers, materials and machines for swell paper, 3D printers etc., and where you can go also in a non-crisis situation to create accessible materials, something which would then allow the creation of better information materials also during a crisis. In the long run, public libraries could leverage their position as trusted community spaces to provide essential services during crisis events [3]. By ensuring both their facilities and services are designed with universal accessibility in mind, libraries can furthermore serve individuals with disabilities to access resources, shelter, and support, that happened during the Katrina hurricane in southern USA [13].

The need for “analog” (non-digital) information in a crisis could be an interesting universal design challenge. Many information- and communication needs today are solved with digital equipment which will be rendered useless without electricity. Batteries could be used short-term but charging possibilities and/or analog equivalents need to be considered if libraries should maintain their information services during a crisis.

As noted above, the personas and variation cards worked to some extent, but not as well as we had hoped. Re-using personas can be risky [14], and in hindsight we should have realized that the Auckland Design personas were skewed too much toward physical design, and that the workshop participants did not have the appropriate experience to extrapolate information needs from those descriptions. Moreover, the personas (as also the variation cards) were both missing a narrative component, which is brought forward as an important characteristic for personas [15 pp. 229]. Furthermore, for personas to be effective to build empathy and make needs explicit, they need to have enough detail (for example a name, a demographic, skills, feelings and attitudes) and be targeted to the specific context [14, 15 pp. 229]. The Auckland Design personas were in this regard very minimalistic. We don't have a clear explanation for why the variation cards were not used more, but perhaps participants were drawn to the images of the personas (simple but clear line drawings) and the clean design. It could also be that personas are a more compelling tool than checklists of variations, even if the personas were not optimal for the task.

The time frame of the workshop was an issue. During the session, the tasks felt a bit rushed, however, when analyzing the results, the main goals of the workshop were indeed fulfilled by 4 of 5 groups, as seen in Figure 3. With more time, a more in-depth introduction could have been made, and it would have been easier for the facilitators to ensure that groups were working with the intended tasks. However, a workshop with many tasks is not a problem in itself, provided that facilitators can handle different knowledge levels and focus. There is no question that all participants in the workshop learned new things, being it about universal information design or crisis preparedness, or both.

6. Conclusion

The workshop served as an eye-opener to crisis preparedness, crisis information spreading and accessible information in general. Ideally, seeing as the knowledge among

the participating librarians of how to work with accessible information was lower than expected, this workshop could be followed up by courses in universal design, accessible information design and crisis preparedness. It also highlighted that municipalities might need to work more actively and openly with incorporating their libraries in the crisis management process.

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