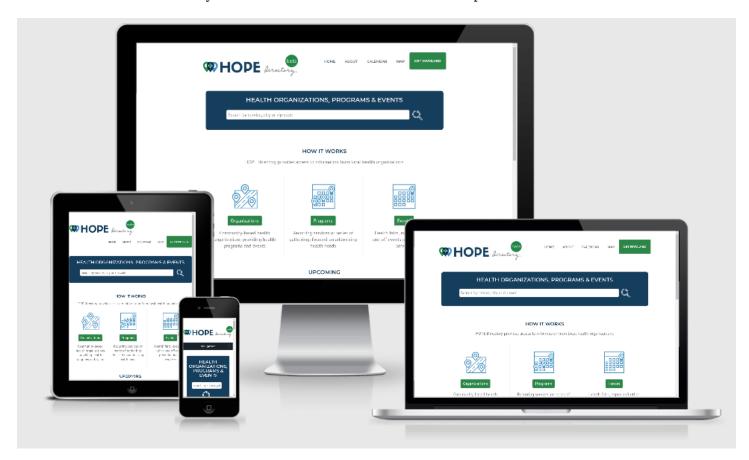
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ABOUT

The HOPE Directory website was launched in February 2019 and moved out of beta in July 2019. The HOPE Directory, short for health *organizations*, *programs* and *events*, offers a centralized source for reliable and authoritative local health information. The goal is to improve public health by removing barriers to access. The first year of this project was focus on the collection of data in Tarrant County, Texas, and will be followed by surrounding counties in successive years.

This project has been supported in part or in full by Federal funds through the National Library of Medicine of the National Institutes of Health under award number UG4LM012345 with the University of North Texas Health Science Center (UNTHSC). The content is the responsibility of the authors and does not necessarily represent the official views of the NIH.

Visit the <u>HOPE Directory</u> for more information or email hope@unthsc.edu.



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CREATING SOLUTIONS FOR A HEALTHIER COMMUNITY

This project ties into the UNTHSC mission, "Creating Solutions for a Healthier Community" via the following measures.

Education

- service learning activities for all UNTHSC students
- internships/clinical rotations

The directory fulfills this feature because it is being incorporated into TCOM Community Service and Community Resources courses. Students and faculty can use this resource to identify volunteer opportunities at local organizations. Internships will be arranged for students to help with the directory. The directory will also connect the UNTHSC community with educational opportunities offered by local organizations.

Research/Scholarship

• community relevant research

This resource provides a unique collection of data collated in an easily accessible interface. Compared to other similar resources this is the most comprehensive for the North Texas Area. In the future this information will be analyzed for trends and new growth opportunities.

Service

transforming lives

This resource eliminates barriers to quality and reliable health information in the community by connecting users with resources that they may not be aware of.

Innovation

network of centers, large database

This resource is innovative because it is a from-scratch database that provides granular search functionality and access to information that improves the lives of the public.

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CREATING SOLUTIONS FOR A HEALTHIER COMMUNITY

Community Voice

partnership with foundations

The structure of the resource is built on promoting community partners and the work they provide to the community. Funding also is supported by regional and national organizations.

DEVELOPING

Mobile First

The HOPE Directory was developed using a "mobile first" design approach. With the proliferation of mobile devices, a user-friendly mobile design is imperative for accomplishing the goal of delivering the greater community and non-profits with a directory of resources and calendar of events. The mobile application benefits both health consumers and non-profits.

Early wireframes and mock-ups focus primarily on three key pieces:

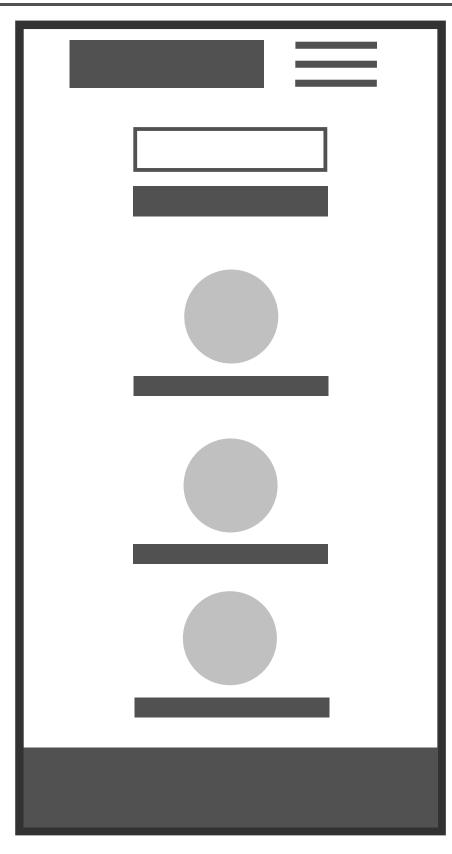
1) The directory homepage provides information about the purpose of the directory and what it can do. Users can search the directory directly from the homepage and connect to listings of organizations, programs, and events. For app display, search elements and buttons on the homepage need to be easily readable, easy to interact with, and all elements need to be separated by an adequate amount of white space. The mobile navigation bar, or "hamburger menu", needs to take up minimal space but still be easy to locate and access so users can quickly navigate the website.

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DEVELOPING

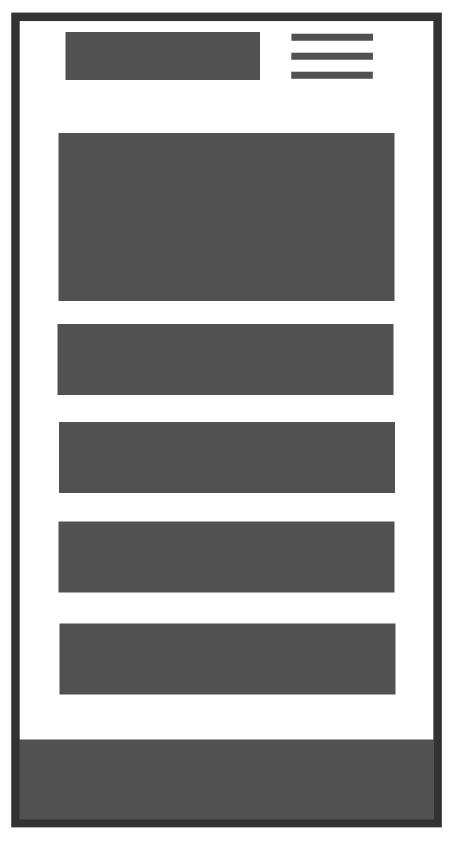
- 2) Pages detailing organizations, programs, and events contain vast amounts of information and need to be presented in way that is easy for users to access and digest content. Pieces for each content type are analyzed so like items can be grouped together and placed into containers that are initially collapsed, but can easily be expanded by the user. Geocoordinates are captured for each organization, program, and event and display on a map which needs to load quickly on the mobile application and include standard features such as zoom functionality.
- 3) The calendar can contain multiple entries depending on the programs and events available. Ample space in the design is necessary so all items are readable and easily accessible while remaining mobile application friendly. Calendar scrolling functionality for mobile ensures ease of use on smaller devices.

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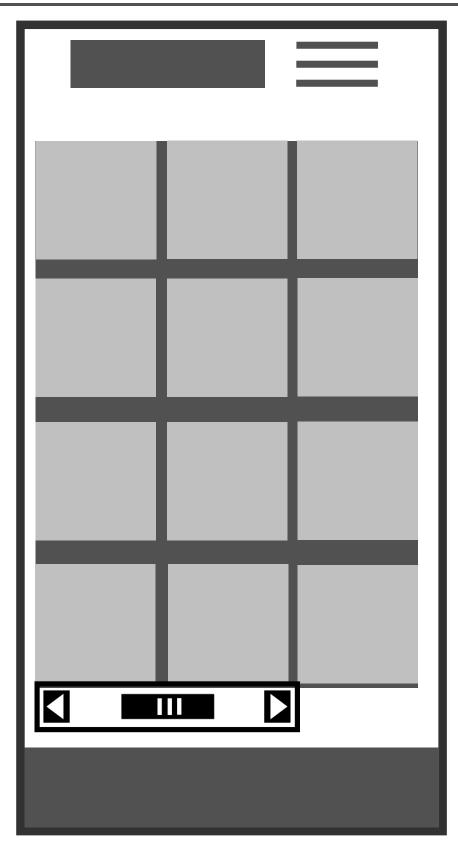


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Wireframe for Orgs, Programs, and Events Pages



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DEVELOPING

Structure

Early development phases involved creating a granular metadata structure and set of input rules which are used to organize content pieces for organizations, programs, and events. Given the complexities of the structure and the need for users to easily search, filter, and locate information relevant to their needs on mobile devices, the directory was developed in Drupal 7, a very powerful and customizable content management system.

The <u>United Zymphonies Theme</u> was selected due to its HTML 5 structure, clean markup and minimal design which is highly customizable and can be easily built on. The theme provides mobile features out of the box that are being further customized utilizing JQuery, JQuery Mobile, and CSS.

As work has progressed on the homepage, additional information about what the HOPE Directory is and the types of content users can search for continues to be clarified. In order to ensure this information is easy to read and access on the mobile application, additional block content regions have been added. These content regions, "Description" and "Featured", were incorporated into the page.tpl.php and .info files to provide more context and improve user experience. The JQuery "hamburger menu" was also adjusted to make text and clickable areas larger. When accessing the directory on phones, the search box may be the only content element (other than the directory logo and "hamburger menu") users see without scrolling, therefore, some additional context is needed so users know what they can search for. A custom tpl.php template file has been created for the search form with help text included ("Search by service, city, or zip code").

As content types for organizations, programs, and events have been built out and tested, it was determined that a two column stacked panel structure would work best for organizing the various pieces of information. For screens 799px or less, both panels are set to a width of 100% so the containers in each column display on top of one another. On devices larger than 799px the column content displays side by side. All containers, with the exception of the first two, are collapsed by default so mobile application users are able to quickly scroll through the content pieces. Containers can be easily expanded by touching the container heading when accessing from a mobile device.

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DEVELOPING

For each content type, geocoordinates are captured by the field type "geofield." After exploring various options, Leaflet was ultimately chosen for tile creation because it is open source and easy to customize, works well across all screen sizes, and the Javscript library is relatively small at 38KB. The <u>Leaflet Drupal module</u> integrates fairly seamlessly with the <u>Leaflet Mapbox module</u> to create a highly customizable map display. There are also many other Drupal modules that build off of Leaflet and extend its functionality.

The <u>Search API module and its dependencies</u> were installed and continue to be tested and tweaked extensively. A server was created in Search API and the HOPE Index was added. Numerous fields from the organization, program and event content types were added as either <u>full-text or taxonomy terms</u>. Multiple <u>controlled vocabularies</u> are used within each content type so users can apply various filters in order to refine search results. A <u>search view</u> delivers the search box, results, and facets display. On the mobile application, filtering options display underneath the search results in the view so users see the expected list of results at the top.

TESTING & REFINING

The first round of usability testing was completed with a group of community partners and medical students in January 2019. Participants were asked to complete a series of <u>tasks</u> using the directory. Following the tasks, users completed a 10 question SUS (System Usability Scale) and a series of optional <u>open-ended questions</u>.

Results and feedback from the first round of usability testing identified issues which have resulted in the changes noted below.

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TESTING & REFINING

- The menu option "Contact" was changed to "Get Involved" to reduce difficulty in finding information on how to submit an organization, program, or event to the HOPE Directory.
- The homepage search box icon has been fixed to resolve clickability issues which were particularly impactful when searching from a mobile device.
- The Google Translation Drupal module has been installed to address requests for content in additional languages.
- Search functionality has been added to every page so users do not have to reroute to the website homepage to execute additional searches.
- Search results now display in a tabular structure and additional sorting options (type, name, host organization, city) have been added in order to make viewing, faceting, and organizing results faster and more intuitive.
- Specific search API fields have been boosted so the most relevant items will display near the top of the results list.
- Explanatory pages for Organizations, Programs & Events providing more information for users about each category have been created.
- A content section on all organization pages providing links to all programs and events associated with that organization has been added.

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TESTING & REFINING

System Usability Scale (SUS) scores from the first round of testing will be used to establish a baseline to compare against scores from future usability tests. Continued usability testing will be done on a schedule with community partners, the public, and information professionals at least twice a year.

The images below show how development has progressed from the early wireframes.

- Homepage
- Organization
- <u>Program</u>
- Event
- Calendar

ADDING ORGANIZATIONS, PROGRAMS & EVENTS

The first step to inputting information about community resources is to identify potential organizations to investigate and find their contact information. There are many informal methods to gathering lists of local organizations. For example, local health fairs provide a space for organizations to exhibit and talk with community members. This is an excellent starting place for finding organizations. Other methods include contacting county public health departments, asking other organizations for recommendations, using search engines, or contacting hospitals or social workers in a particular area. Creativity is essential for the process, as well as a willingness to explore and ask questions.

The <u>HOPE Directory process document</u> outlines the steps and procedures involved for finding organizations, contacting organizations, gathering information, entering information, publishing information in the directory, and ongoing communications maintenance.

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TALKING POINTS

The talking points below are used to market and share information with the community about the HOPE Directory.

What is it?

An online directory of local health organizations and their programs and events.

Why was it created?

- The purpose is to eliminate barriers to quality and reliable health information.
- It fulfills our mission as a university and as a resource library for the National Network of Libraries of Medicine (NNLM).
- Libraries can be creators of knowledge, especially community knowledge.

What makes it different?

- All information is verified by a person and not a web crawler.
- There are wide range of ways for the public to search and find the right information for their needs.
- Continued usability testing will be done on a schedule with community partners, the
 public and information professionals at least twice a year.

Who is the audience?

Designed for the public and local organizations.

How was this project created?

- Currently this project has been funded by the NNLM and SCAMeL.
- Built from scratch in Drupal by Lewis Library.
- A team of librarians --Tom Lyons, Lorraine Sheldon, Brandy Klug, Ramona Holmes and Maria Balduf-- created a custom metadata scheme-- in other words, what information will be collected and how it will be organized.

What are future plans?

The goal is to make it sustainable by allowing local organization to directly submit their programs and events to the directory.

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SHARING

Code and documentation will continue to be made available on <u>GitHub</u> as the project develops and members of the project team present the work at local and national conferences and meetings.

The HOPE Directory project team welcomes the opportunity to collaborate and share what we have learned throughout this process. We encourage members of the community to contact us with any questions.

Contact form hope@unthsc.edu 817-735-2070