

**INDEX** Full Stack App

## *Project Description and Clarification*

Sponsored by:

**INDEX**

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# I. Introduction

INDEX, is an organization which guides the Independent Living Movement by advocating for choice, equity, and justice. There are many ways to develop a website, INDEX requires a solution that can be easily maintained and updated by their small team which only has a little experience with StudioPress Genesis. This document will provide all the information on INDEX's new website, including its background, requirements, specification and stages of work and status.

## 1. Background and Related Work

INDEX [1], is an organization with people who work together to raise the voices of the disability community including those most marginalized – BIPOC, LGBTQIA2S+, immigrants, refugees, and those experiencing poverty. INDEX currently only has a small reference to their organization on their parent companies website. INDEX currently doesn't have a website and they are sharing the same website with their parent company DACNW.

WordPress is a content management system (CMS) to build and publish website, it is the most popular CMS among others with the portion of 65.2% [3]. Genesis is the framework of Wordpress website, in other words, it decides how your website looks like. If WordPress is the engine of a car, then Genesis is the frame and body of it [2]. DACNW's website was built on WordPress and INDEX is expecting their website to use the same model.

## 2. Project Overview

INDEX currently only has a small reference to their organization on their parent companies website (dacnw.org). INDEX plans on extending this reference to an entirely new website hosted under their own domain name. This means developing a website and making minor edits to the existing reference. The problem is that there are many ways to develop a website and INDEX requires a solution that can be easily maintained and updated by their small team with little web development experience.

As a nonprofit staffed by volunteers, INDEX doesn't have the means of hiring/supporting a web developer. Under these circumstances, the website is going to need to be developed in such a fashion that non-tech savvy individuals will be able to make edits/updates to the website when needed. With this objective, it is important to note that some of the staff members have minor experience using the Studiopress Genesis framework. Teaching/training INDEX employees on other web development techniques would most likely be unreasonable given the time constraint and potentially force them to outsource web developers after the project is complete. As stated previously, hiring web developers is not a desired outcome. Creating the webapp using the Studiopress Genesis framework will support all the desired outcomes with the least amount of risk. An added benefit to this framework is that dacnw, the parent company, is already using Studiopress Genesis and can potentially provide support to INDEX if needed.

As stated previously, they only have minor experience with the framework. This means that training and documentation is still going to be necessary. Genesis blocks are a very intriguing option because of the templating and reusability. For example, we could create an event block that only requires the user to drag and drop it onto the page and fill out the information. The documentation for this action would consist of the location and name of the block and a few steps on attaching it. This would allow us to focus more on the webapp rather than documentation. Another use case for Genesis is that custom page templates can be prepared for future implementations. For example, they have a surplus of volunteers right now

and don't want a volunteer signup page. In the future, they might need more volunteers and a signup page. To do this they would simply click “add page” and select our template that was pre-prepared to their liking.

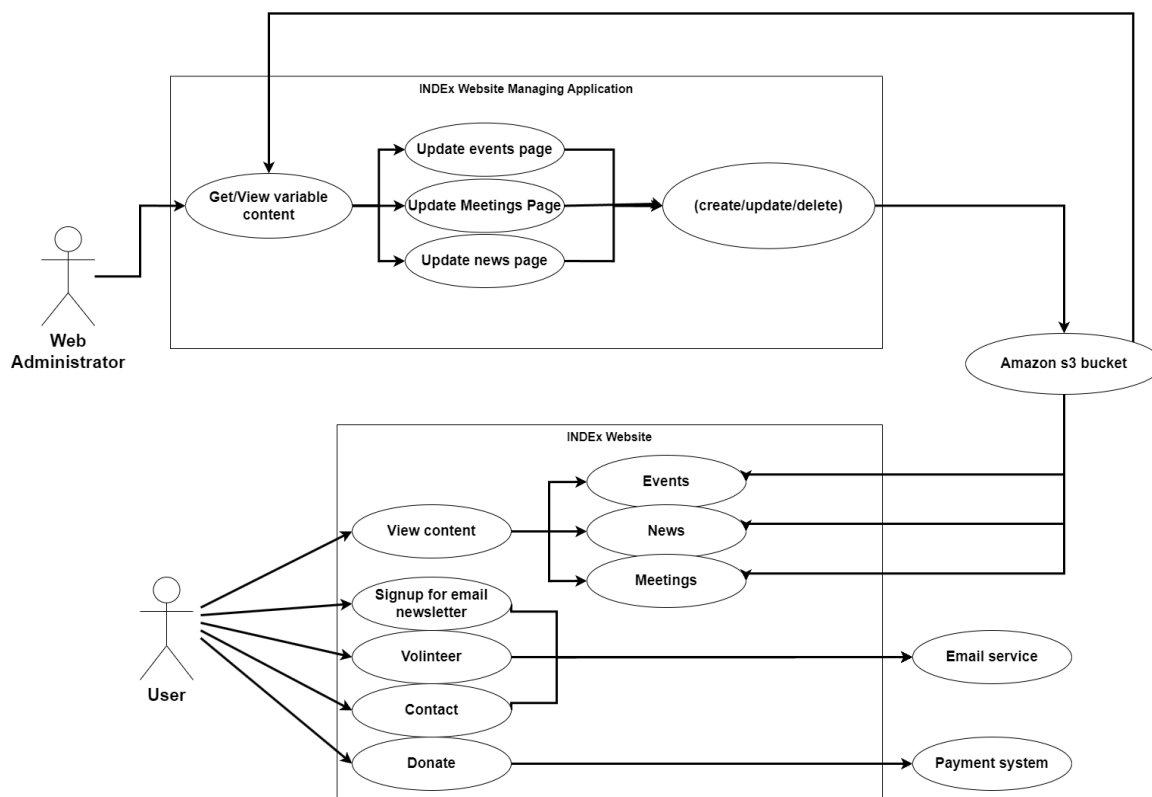
The final objective is to conform with the U.S Access Board’s section 508 standards. Because INDEX is “an organization run by people with disabilities for people with disabilities”, we have to ensure it is accessible to everyone. A specific example is avoiding serifs because these styles can be much more difficult to read if you have dyslexia. Thus, Sans-serif types should be used to accommodate this. A guideline that is often disregarded is the use of popup videos. This can be alarming to someone who is blind and difficult to turn off. We are going to have to follow these standards closely and work with the INDEX staff for any potential violations.

### 3. Client and Stakeholder Identification and Preferences

Our clients are INDEX’s staff who will manage the website and its content (newsletter, events, blogs, etc). The primary stakeholders for this project will be the website’s visitors. INDEX states “We work together to raise the voices of the disability community including those most marginalized”. Clearly, the disability community and those marginalized are stakeholders in this project. The needs and preferences for both the client and stakeholders is for us to conform with the U.S Access Board’s section 508 standards. Volunteers are another integral stakeholder in this project.

## II. Project Requirements

### II.1. Use Cases



**Story:** Mels is responsible for updating/maintaining the INDEX website. She would like to add a new event to the events page so she opens the index-editor desktop app. After clicking the events tab, she decides to remove an old event so she clicks delete and removes it. She then fills out the required fields for a new event and clicks add.

**Story:** Thomas Bell is an advocate for the independent living movement. Thomas visits the INDEX website, learns about their mission and decides to volunteer. Thomas clicks the volunteer button on the homepage, fills out the register to volunteer form and submits it.

**Story:** HannahEllison is an advocate for accessibility. Hannah enjoys the newsletters on the index website and would like to be notified when they are posted. Hannah provides an email address to the newsletter signup box and clicks subscribe.

**Story:** Adam Parr likes to donate to missions he supports and visits the INDEX website. He clicks the donate button, fills out the billing and payment method information and confirms the payment.

**Story:** Eric Hughes would like to reach out to INDEX directly via email. He clicks the contact button, gives his name, email, message and clicks send.

## **II.2. Functional Requirements**

### **II.2.1 INDEX editor application**

The website would have pages where administrators and staffs add and edit the contents such as news or events. The winforms application is a program to help them easily do such things.

**Source:** The team originated this requirement. It is necessary for the admin/staff to update the contents on the website.

**Priority:** Priority Level 0: Essential and required functionality

### **II.2.2 (Events) INDEX editor application**

**Events page connected with a database:** Unlike the “Homepage” or “Contact us”, the “Events” page is not static since it always gets updated with new events from INDEX. Therefore, the page needs to connect to a database (a JSON file) where the latest as well as the older events are stored.

**Source:** The client originated this requirement.

**Priority:** Priority Level 0: Desirable functionality

### **II.2.3 (Meetings) INDEX editor application**

**Meetings page connected with a database:** Unlike the “Homepage” or “Contact us”, the “Events” page is not static since it always gets updated with new events from INDEX. Therefore, the page needs to connect to a database (a JSON file) where the latest as well as the older events are stored.

**Source:** The client originated this requirement.

**Priority:** Priority Level 0: Essential and required functionality

### **II.2.4 (News) INDEX editor application**

**News page connected with a database:** Unlike the “Homepage” or “Contact us”, the “Events” page is not static since it always gets updated with new events from INDEX.

Therefore, the page needs to connect to a database (a JSON file) where the latest as well as the older events are stored.

**Source:** The client originated this requirement.

**Priority:** Priority Level 0: Essential and required functionality

#### **II.2.5 Mobile accessibility**

**Mobile compatibility:** The website needs to be compatible with mobile devices (ex: smartphones and tablets)

**Source:** The client originated this requirement.

**Priority:** Priority Level 0: Essential and required functionality

#### **II.2.6 Section 508 accessibility standards**

**Met Section 508 accessibility standards:** The website needs to be compatible with mobile devices (ex: smartphones and tablets)

**Source:** The client originated this requirement.

**Priority:** Priority Level 0: Essential and required functionality

#### **II.2.4.1 Email service**

**SMTP:** the application needs to be able to connect INDEx with its user for contact, newsletters and volunteering. This will be done using a secure third party system.

**Source:** The client originated this requirement.

**Priority:** Priority Level 1: Desirable functionality

#### **II.2.4.2 payment service**

**Donation system:** the application needs to support donations through a secure third party API.

**Source:** The client originated this requirement.

**Priority:** Priority Level 1: Desirable functionality

### **II.3. Non-Functional Requirements**

- **system shall be <maintainable>**

The website should require little maintenance and be easy to update. This is important because INDEx employees are not tech savvy.....

- **system shall be <scalable>**

As a nonprofit organization, the ability to auto-scale is important because they want to keep costs low and only pay for resources when needed.

- **system shall be <reliable>**

the system should not crash. This is important because INDEx wouldnt know how to fix it.

## **III. System Evolution**

The website is hosted on an Amazon AWS S3 instance and it is based on Vue.js framework. The website contains a navigation bar which is located at the top of all pages, visitors can use the navigation bar to go to homepage, events, newsletter and blogs. For events, newsletter and blogs, there will be a database to store all of those, they can be edited through a winforms application running on a desktop. The risk we might run into is someone deobfuscated the winforms application and freely add/delete the website's events. In addition, since the website has static pages, it would be difficult to change things around if the clients wish to.

## Glossary

**INDEX:** an organization which guides the Independent Living Movement by advocating for choice, equity, and justice

**WordPress:** open-source content management system

**StudioPress:** themes and design framework for WordPress

**Genesis:** WordPress framework

**Vue.js framework:** A way to build a website.

## References

1. "INDEX Inland Northwest Disability Experience" [dacnw.org](https://dacnw.org)  
<https://dacnw.org/contact/index/> (accessed Sept. 28, 2022)
2. "Frequently Asked Questions" [studiopress.com](https://www.studiopress.com)  
<https://www.studiopress.com/faqs/> (accessed Oct. 5, 2022)
3. A.Fitzgerald."20 WordPress Statistics You Should Know in 2022". Hubspot.com  
<https://blog.hubspot.com/website/wordpress-stats> (accessed Oct. 5, 2022)