

EFFICIENT INDIANA: A TRANSMEDIA EXPERIENCE TO BOOST SUSTAINABLE
LIVING PRACTICES IN THE HOOSIER STATE

A CREATIVE PROJECT
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ABSTRACT

CREATIVE PROJECT: Efficient Indiana: A Transmedia Experience to Boost Sustainable Living Practices in the Hoosier State

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This creative project builds a transmedia experience that centers on the living practices of Hoosiers and their personal impact on the state's environment. If Indiana residents can become more aware of their individual impact on the environment and have access to the necessary resources, they may feel compelled to live more sustainably. The transmedia storytelling project will consist of an interactive website, social media campaign, and supplementary podcast for curious but uniformed Indiana residents in hopes of igniting positive change state-wide. This project used design thinking methods, including focus groups, usability testing, and co-creation prototyping, to make a platform generated for the target audience with their participation.

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Efficient Indiana: A Transmedia Experience

As the world population grows each year, cities everywhere are using more energy and natural resources. The Pew Research Center (2019) determined that “about six-in-ten Americans (62%) said that global climate change was affecting their local community a great deal or some” (p. 1). With this, natural resources deplete, and our carbon footprint further damages the Earth. Valuable materials, such as water, natural gas, and timber, are needed to create energy. These are used in our daily lives, but they are not infinite. Indiana heavily relies on these sources – especially coal – for energy. According to the U.S. Energy Information Administration, “In 2017, Indiana ranked eighth among the states in coal production and second in coal consumption, after Texas. In 2018, coal-fueled 69% of Indiana's net electricity generation and provided coal to the state's steel industry” (EIA, 2020, para. 4).

Indiana is not considered a green state. A recent study that examined each state’s environmental quality, eco-friendly practices, and climate change contributions. These metrics were ranked on a 100-point scale, with a score of 100 representing the best score of eco-friendliness. From these results, Indiana ranked 40th of the 50 states (Kiernan, 2019). Additionally, research found that since Indianapolis’s recycling program was established in 2000, there has only been a 7% recycling rate of all recyclable goods and a 10% citizen participation rate (Bowman, 2019). However, there is a lot of public interest in trying to make a difference. A survey was conducted by Southern Cross University to research how actively citizens sought environmental information. Of the 913 people that were surveyed, 77% said they were interested in learning how to live more sustainably. Within this same group, 28.1% of the participants said

that a barrier to living more sustainably was lack of vendors or programs in their communities (Southern Cross University, 2019).

To address these concerns, I decided to think in the spirit of the venerable expression, “think globally, act locally.” This phrase is commonly used in many activist initiatives, most popularly, the 1970’s environmental movement. This slogan has been used in research to compare the attitudes and awareness of environmental issues between the citizens of Frankfurt, Germany and Manchester, UK (Darier, 2007). This is one example of how “think globally, act locally” has sparked discourse. It’s also a perfect way to summarize the transmedia components and platform goals of the Efficient Indiana experience.

I designed this creative project to educate Indiana residents on sustainable living and green practices. This storyworld is a unique place for Indiana residents to connect to organizations within their communities that deal with green technology, recycling, and energy efficiency. It is approachable to those who might be uninformed about the topics and curious about how to get involved. As a transmedia experience, it aims to reach and engage its target audience through multiple channels. If Indiana residents can become more aware of their individual impact on the environment, they may feel compelled to live more sustainably. This will take form in three components; a website, a social media campaign, and a podcast.

There are two goals for this experience. The first is to promote green living and sustainability to the common Indiana resident in an easily accessible (and understandable) environment. The second is to persuade users to be more environmentally conscious, without being “invasive,” meaning to not overload the user with emotion or moral dilemma to gain the desired result. If this experience educates someone on sustainability or motivates them to be

more environmentally conscious, then it will be successful. Environmental impact resources are not readily accessible to Hoosiers; it takes digging through databases to uncover (Hook, 2019; Widhalm, 2018; Filippelli, 2018). Furthermore, once one can access this information, it is not published or written for the average person, making it hard to digest and process effectively. This transmedia experience hopes to contribute to mitigating this problem.

I employed user-centered strategies like design thinking to engage Hoosiers between the ages of 21 and 60. Methods included virtual focus groups and interviews to better understand their knowledge of Indiana's carbon footprint and to understand best tactics to reach them and their peers with information. Additionally, user journey mapping and co-creation took place. In an entry for the *Communication Design Quarterly* by Tharon Howard, *User Journey Mapping* "provide(s) a graphic visualization or a map of a customer's or user's experience with the product" (p. 11). The literal definition of co-creation is "together (co-) make or produce something (new) to exist (creation)," (De Koning, et al. 2016). However, John Czepiel established the thought process of "customer participation may also lead to greater customer satisfaction" (1990). Both of these strategies were used in the prototyping phase to create a usable and effective platform. Industry professionals were also interviewed to ensure that the stories and platforms developed for the transmedia experience are credible. The research and design of this transmedia project were guided by the following questions:

- How can a transmedia storytelling project help connect Hoosiers to dispersed information about climate and environment in Indiana?

- How might users of this project contribute to an effective presentation and arrangement of this information?

In this project, I implemented the following design thinking methods: similar case research, focus groups, interviews, usability testing, and co-creation prototyping. Design thinking is the “deep understanding of the problems and realities of the people you are designing for” (IDEO, 2009). Design thinking was a tool that helped craft the entire transmedia experience by using empathy to connect deeper with the needs and responses of my target audience. Empathy is the “ability to see the world through other people's eyes,” (Dam, 2020). My methods used the opinions and thoughts of real hoosiers while conceptualizing the Efficient Indiana prototype.

They also discussed their awareness of the state’s carbon standing as well as their ideas on addressing these concerns statewide. Additionally, this target demographic tested the prototype and shared their frustrations with the design. To the core, this project has used design thinking methods to engage hoosiers and make a platform and content best suited for them.

Literature Review

Sustainability and climate change are complex issues, which many feel they can have a minimal impact. Some of this can be attributed to lack of awareness or education, but it also can come from a lack of feeling a personal need to change. This literature review will analyze prior research surrounding sustainable living practices, “feel-good” motivations that inspire change, and non-invasive persuasion. Additionally, the success of various existing sustainable living services, experiences, and movements pertaining are examined.

Social Marketing and Sustainability Campaigns

There have been many sustainability campaigns that sought to ignite a personal course of action. Atkinson, et al, (2016), analyzed the findings of six diverse marketing campaigns and the various challenges and opportunities surrounding successful sustainability plans. Of these six campaigns analyzed, they were all either public communication campaigns and advocacy campaigns. Atkinson’s research concluded that these studies needed to look past the traditional tactics of sustainability and climate change communication. More emerging channels (like social media) are needed, as are alternative communication audiences such as university students.

Thorson, et al, (2016) examined the People’s Climate March in 2014 through the hashtag #peoplesclimate, which was used in the conversation about climate change. The analysis showed “a large but fragmented conversation” (p. 18). The conversations on twitter showed a “limited common vocabulary” among the hashtag users. Their research “(did) not provide indication that the Twitter conversation around the march helped to build bridges across personalized framings of the climate issue” (p. 17). Though their data suggest that the climate conversation over the

recorded three days attracted a diverse group of users. Thorson explains that the hashtag did not build bridges across the greater climate change conversation online because the People's March was the event's focus. Additionally, Thorson explained that in collecting data, the keyword search was "climate," instead of focusing on the hashtag, "#peoplesclimate." This focusing of the #peoplesclimate hashtag might have led to a more coherent discussion online.

Human-Computer Interaction and "Feel Good" Motivations

Human-Computer Interaction (HCI) can play a vital role in the climate and sustainability crisis. It can be a tool used to educate and persuade users to change through "feel-good" motivations. Becker (2014) documented destructive waste habits that changed into positive recycling behaviors by reinforcing positive feelings in human interaction. They did this by putting "Feel Good for Doing Good" signs on recycling containers.

They recorded data by counting the number of recyclable items discarded in recycling and garbage containers. They additionally surveyed participants after throwing away materials. Participants noted that some were confused between the garbage cans and recycling cans, and missed the cue to recycle. This study found that putting messages on the cans may stop undesired behaviors, but there was confusion among participants who thought the garbage cans and recycling bins were the same. It can be surmised from this experiment that "raising awareness of a concern and associated benefits, feeling good, may help participants initiate new behaviors" (p. 10). This data is helpful to this creative project by showing that messages can influence behavior. Efficient Indiana messaging must be clear in intent and reasoning to be impactful so we can properly influence more sustainable behaviors among Indiana residents.

Non-Invasive Persuasion

BJ Fogg (2003) coined the term “captology,” which refers to the study of interactive computing systems designed to change people’s attitudes and behaviors. Fogg discusses the Life-Fitness VR Rowing Machine, a stationary exercise machine that features a virtual screen. The user sees a digital representation of themselves on the screen rowing a boat. When the user rows faster, the virtual boat moves faster. “The simulated environment distracts users from focusing on the discomfort that comes with the exercise” (p. 70).

According to Fogg, persuasion can happen on the macro and micro levels. Fogg describes macrosuasion as “the overall persuasive intent of a product” (p. 17). Microsuasion is about more subtle details that can be implemented into the design frameworks. These microsuasions can be built into any interaction element. In fact, many of these microsuasion elements congratulate or reward the user for completing tasks, thus making the user want to stay longer.

Fogg notes that the popular personal finance application Intuit is successful in implementing microsuasions. “At the simplest level, the software reminds people to pay bills on time, helping them be financially responsible... In Addition, the software praises users for doing menial, but necessary tasks, such as balancing their online check registry” (p. 18). The combination of praise, visual cues, and reminders in this example are a successful use of microsuasions that lead to a better user experience. Microsuasions can be implemented in the social media campaign. This can be done through making posts that praise people for common recycling acts. Presenting the public with positive information on commonly practiced sustainable acts might inspire them to continue doing it or do it more often.

Similar Cases

Indiana Workshops

A community case study published by the Centers for Disease Control and Prevention (CDC) conducted daylong active living workshops in cities and towns throughout Indiana. The aim of the workshops was to help organize and support community-based organizations and public officials. They promoted policy, system, and environmental (PSE) changes to create healthy communities. In their findings, the CDC discovered that following a consistent system of community workshops and then hosting follow-up activities led to positive PSE changes within one year. Indiana workshops presents a model for this creative project, and exemplifies the potential success of similar cases. However, Efficient Indiana is designed to be ongoing and evergreen, unlike the location- and time-bound Indiana workshops.

WWF Free Rivers

The World Wildlife Fund's Free Rivers experience taught the history of free flowing rivers and water conservation strategies through gamification. Users can learn about why dams are used and how they are built. Throughout the experience, users learn about the benefits of the water conservation process. It features immersive augmented reality (AR) that combines visual animations with sound effects, narration and music. However, the interactions are limited. This application is available for free, making it highly accessible. Though Free Rivers lacked smooth interactivity and features navigation that is limited and clunky, it demonstrates the value of Efficient Indiana's goal of wide accessibility.



Figure 1: WWF App. An iPad displaying the AR features of the WWF Free Rivers Application. Photo provided from the web (WWF, 2018)

Thrive Indianapolis

The City of Indianapolis Office of Sustainability created Thrive Indianapolis (<https://www.thriveindianapolis.com/>) as a comprehensive strategy to create a more environmentally sustainable city. It has two major goals: to increase community resilience by prioritizing equity in policy, planning and project implementation; and to achieve net zero greenhouse gas (GHG) emissions by 2050. Thrive Indianapolis does a thorough job explaining their action plan, challenges, successes and failures. It is a feasible project with excellent analysis. Thrive Indianapolis, however, could have been better promoted through its own social media campaign and accounts, and more varietal program marketing. Efficient Indiana is

designed as a transmedia communication campaign with three initial launch points — web, social media, and podcast — to reach varying audiences on multiple media channels.

Filling the Gap

My chosen design thinking methods address the gaps left in the previous research and similar cases in several ways:

- It includes members of the target demographic in the development phase. Unlike the similar cases discussed above, the participants helped craft the narrative tone of the experience.
- It increases user participation over time by bridging users to local initiatives, allowing for impactful community building.
- It merges multiple aspects of interactive content into a transmedia experience instead of a singular experience.
- It connects the public to government data, policy, and information through a simple and straightforward interface and accessible media channels..

Project Design

This project engaged 14 participants, all of whom are Indiana residents. Each individual participated in one of the following: a focus group, interview, and/or usability test. A purposive sample was drawn from members of clubs, organizations, and publications that pertain to sustainable living and green solutions. I tried to include a wide range of participants within my target audience, despite having some difficulty recruiting during a pandemic. I conducted interviews with industry professionals who have experience in sustainability communications. Additionally, I implemented case study analysis as part of its design thinking methods.

Individual participants were male and female, between the ages of 21 and 60. The participants were chosen from various regions of Indiana. The project's design process began with the professional interview, followed by the focus group and usability testing sessions. The Ball State University Institutional Review Board determined these studies did not qualify as human subjects research.

Virtual Focus Group

The goals for this session were twofold: 1) to bring awareness of the current environmental state of Indiana and 2) to explore how willing these participants are to use an interactive platform that promotes sustainable living. In the groups, the various residents of Indiana introduced themselves, individually answered questions and discussed the subject matter, and answered questions related to specific, environmentally-focused platforms. As the proctor, I made sure the answers remained concise in order to give everyone time to share.

The focus group started with a brief overview of the Efficient Indiana creative project. I then continued on to explain the goals and structure of the session, as well as educate the

participants on Indiana's current environmental standing with factual evidence. This was done so they could comment on what was the most striking, memorable, or alarming. Participants then synthesized the presented information and shared their perspectives on it. They were made aware that their answers were recorded, and that the answers and identities will remain anonymous.

The participants also discussed the types of interactive platforms they would be open to exploring. Once the virtual session was completed, I reviewed the notes on the responses and organized it into a summarized finding report. This report notes main ideas and themes that occurred in all the participant's answers. This repetition gave insight into the mean, median, and mode of common thinking among the participants.

Prototype Development

Prototypes were developed for the website portion of this transmedia project, with other elements of the campaign to be developed over time. Co-creation is a process of gathering insights from focus groups, usability testing, and expert interviews, and collectively building a prototype. Ten Indiana residents aged 21–60 provided feedback about how user-friendly the current prototype in response to the usability testing sessions.

There were two groups of users who were led on a task-based usability test. They received a short briefing about Efficient Indiana's purpose and website. The participants were instructed to speak out loud their thoughts, emotions, and reactions to the interface as they explored, in order to see how the users intuitively navigated the website architecture. The feedback gathered from the usability testing sessions on the mid-fidelity prototype were used to improve the quality of the next prototype.

Usability Testing

This method used co-creation prototyping to improve the mid-fidelity prototype and create a high-fidelity version. For my usability testing sessions, I observed users testing the mid-fidelity Efficient Indiana website prototype. The groups were arranged in two groups of five. Their participations allowed me to test how well the context and usability of the transmedia platform affected personal user experience. Users were made aware that their answers were being recorded confidentially. The insights, frustrations, and pleasure points of the participants were used as qualitative data. Both groups of users were timed, and asked to complete four location-based tasks. The tasks were:

1. Find the goals of Efficient Indiana on the website
2. Find the “Where to Start” page
3. Find where Indiana’s current efforts are on the website
4. Find an article about alternative living on the website

The groups were asked to find these items and then to rate the website on a scale of one through ten for three different categories, a score of one being bad and 10 being excellent. All four of the tasks were location-based, meaning that the participants had to locate different pieces of information on the website. This tested the quality and convenience of the prototype’s information structure. Participants were then asked to rate the satisfaction of the experience, the ease of use, and the comprehension of the website’s intended context. Once the testing was completed, users could then casually describe their thoughts, opinions and frustrations in detail. All of the frustrations, comments, and concerns informed the design of the final prototype.

I recorded the results from both groups in writing and made note of vocal comments from the participants. The participants were timed completing each task to see how difficult they might be to complete. The full length of time for each participant's tasks were averaged. The comments and concerns about the website's usability and design aesthetics were then addressed in the updated version. These edits are made with the help of the users, for the users. The ratings from the categories were analyzed as mean, median, and mode.

Professional Interview

The purpose of the interview was to gain professional knowledge about the ways in which communication tactics are best suited for engaging the public about sustainability issues. Additionally, he was asked about what tactics to avoid and how to reach an unaware audience . For my interview, I contacted Ben Valentine, an industry professional who works as an engagement manager for the Landmark Columbus Foundation in Columbus, Indiana, and previously worked as an environmental reporter for Indianapolis-based Nuvo media. He provided valuable insights to sustainability communication and audience engagement.

His advice informed the development of the content and structure of the Efficient Indiana experience. "It is best to share (stories on sustainability) what it is and how it's exciting, to keep the attention of the public" (Personal communication, December 8, 2020). Following that, all of the stories and content aim to be educational, exciting and based on local impact. Valentine has professional experience researching and reporting on sustainability in Indiana. He spoke on Indiana's opportunities for growth of sustainable practices, and why the state is not a current leader nationally. His expertise was a helpful tool of research looking into the lack of awareness on current statewide initiatives and sustainability as a whole.

Results and Design

Usability Testing

These research results indicate that users didn't need more than a couple of minutes to navigate the prototype and complete the tasks. The longest time a user took was two minutes, five seconds. Additionally, levels of satisfaction, usability, and context analysis ranked high (10), low (1), but the prototype wasn't without criticism, as described below.

- Level of Satisfaction: 8.6/10
- Ease of Use: 9.1/10
- Understanding of Context: 8.5/10
- Average length of time to complete tasks: one minute, 33 seconds

Observations from Sessions

The Indiana's Current Efforts section of the website was difficult for many users to locate, revealing that it should be accessible from more than one location. On this prototype, Indiana's Current Efforts is only accessible from the home page, or page one. Many users bounced between "Where to Start" and "Get Involved" out of confusion. These two page titles did not differentiate the content well. The website prototype, despite some frustration points, was still easily accessible; no user took longer than two minutes and five seconds to complete tasks.

Comments from participants regarding frustration points or design flaws:

- “Where to Start and Get Involved should be condensed to one page. It was confusing to me because the names suggested similar things and after I visited both, I forgot what content belonged to which page.”
- “Our Stories didn’t make sense to me, Blog (or something similar) would’ve been better.”
- “The bottom banner should have contact info and a “help” link”
- “An FAQ page would’ve made more sense to me than an “About” page. Even if it wasn’t a page, an FAQ section would’ve helped me understand it a little bit better.”

See Appendix A for a full user journey map that includes the pain and pleasure points of the participants.

Focus Group

The first question was asked before briefing the participants with factual representation of Indiana’s environmental standing. It was a simple yes or no question, as follows, “Are you aware of Indiana’s current environmental standing? All three participants said “No,” or that they weren’t currently aware. The participants were then informed on Indiana’s coal consumption, chemical pollution, and volume of trash disposal, as well as Indiana’s eco-friendliness relative to other states.

The questions that followed asked the participants about these facts and what might be an effective way to inform more Indiana residents about them. One 22-year-old male from Northwest Indiana responded, “It is alarming, but also not surprising. I didn’t know any of this data, but felt that Indiana wasn’t as environmentally friendly as the state next to me (Michigan).” A 22-year-old female from southern Indiana noted, “Hitting people with the cold facts about why

climate change and sustainability are so important. I could see this being done through an organization with resources online, but it also needs to be in some kind of easily visible advertisement for Hoosiers. Somewhere they can see it, get alarmed, and find out more.”

Though it was a small focus group, results show that these participants, at least, were not aware of Indiana’s sustainability problem. However, the small size of the group allowed for the discussion of viable solutions for making more people aware of these problems. These participants were alarmed at how far Indiana is behind other states in sustainability, and expressed the need for all the topics discussed to be easily accessible to the public.

Professional Interview - Ben Valentine

Three key themes emerged from Ben Valentine’s interview responses: effective communication, information accessibility, and solutions. When asked what sustainability tactics are effective or ineffective (in reference to sharing stories about the environment) for reaching a new audience, Valentine responded, “It is important to have simple invitations that are clear and accessible, you want to invite people into a cool project that has a positive impact” (personal communication, December 9, 2020).

Valentine also discussed how the audience searches for and encounters topics of sustainability. Valentine noted that information isn’t readily available to the common citizen in Indiana. When asked if Indiana residents tend to seek out sustainability content on their own, he responded, “People that are in the choir find their own media, but in Indiana it’s hard to find out about what’s going on. It is easy to see what’s happening nationwide, but cool stories and projects going on locally aren’t displayed as readily.”

According to Valentine, “The agricultural community in Indiana is currently not on trend with science. We are not a leader, but could be very easily.” This quote brings up the last key theme touched upon in the interview, which centered around solutions to the problem areas in Indiana. Valentine continued to say, “Climate change in Indiana is the biggest room for fast growth and simple management shifts in livestock farming. Agricultural sustainability and the solar industry could grow faster (and provide more local jobs).”

These comments informed the project’s design of information architecture and content. The information needs to be as clear, accessible, and exciting as possible. Additionally, the content should show regional opportunities for education and sustainable practices. Efficient Indiana must be actively promoted to Hoosiers. This will be done with targeted social media posts. Facebook, for example, allows for post “boosting” at very low cost. Content will feature facts or information that affects Hoosiers to better grab their attention. The use of local, regional, and topical SEO terms in content tagging across all platforms will allow for better discoverability on search engines to boost awareness of the Efficient Indiana project.

Representation of the Project

The Efficient Indiana experience consists of three components. The first, and most important, is the Efficient Indiana website. The website aims to be a central hub for the entire storyworld. It will be where users can access all of the content on an organized platform. It opens the world of sustainability to Indiana residents in an approachable way, offering resources and access to programs that are directly tied to Indiana. The second is the social media campaign which aims to spread awareness of our brand through Facebook, Instagram and Twitter. It also

pushes facts to the public. The last component is a podcast which offers curious users another way to access topics of sustainability.

The Efficient Indiana Website

The purpose of the website is to serve as a starting point for curious Hoosiers to learn about sustainability. The website includes a blog, as well as links to social media channels, events, and podcast episodes. Information will be presented from all of Indiana's initiatives, allowing the user to find the facts without the hassle of digging through government databases themselves. This website is divided into five main pages in the first-round prototype.

The pages are: Home (Page 1), Where to Start (#2), Get Involved (#3), Our Stories (#4), and About (#5). There is an additional page (off of the navigation bar) in the test that features content related to "Alternative Living", this will be referred to as Page 6. Page 1 acts as an introduction to Efficient Indiana, sustainability, and Indiana's current efforts and resources. Page 2 takes a deeper dive into the meaning of sustainability and why it's important. Page 3 offers a calendar of events, initiatives or workshops hosted by Efficient Indiana or other statewide environmental groups. It also links directly to Facebook for event registrations. Page 4 hosts all of the curated multimedia content on sustainability topics. It is also where users can access information about the Podcast and the platforms on which it will stream. Page 5 is the information page about Efficient Indiana and where users can directly contact us.

Mid-fidelity Prototype



Figure 2: Mid-fidelity website. The landing and “Home” page of the website.



Figure 3: Mid-fidelity website. The “About” page featuring the goals and mission statement of Efficient Indiana.



Figure 4: Mid-fidelity website. The “Our Stories” page with content pieces and the podcast.

The image shows a website page for 'Efficient INDIANA' with a navigation bar containing 'HOME', 'WHERE TO START', 'GET INVOLVED', 'OUR STORIES', and 'ABOUT'. The main heading is 'UNDERSTANDING SUSTAINABILITY'. Below it is a diagram stating 'sustainability is made up of three pillars' which branches into 'Economy', 'Society', and 'Environment'. An illustration shows two hands holding a globe with a city and a tree. Below this are three columns: 'profit' (relates to the cost of production, profits made financially and natural benefits), 'people' (relates to how people interact with each other, technology, and the environment), and 'planet' (relates to the use and prevention of natural resources and impact on the Earth). The footer includes the 'Efficient INDIANA' logo and social media icons for Twitter, Facebook, and Instagram.

Figure 5: Mid-fidelity website. The “Where to Start” page that educates on sustainability.



Figure 6: Mid-fidelity website. The “Get Involved” page with the calendar of events.



Figure 7: Mid-fidelity website. Page with content from “Our Stories” relating to Alternative Living.

High-fidelity Prototype



Figure 8: High-fidelity website. This is an updated “Home” page featuring less rounded elements and navigation bar choices.



Figure 9: High-fidelity website. The new “About” page featuring a new FAQ section, suggested by one of the usability testing participants.

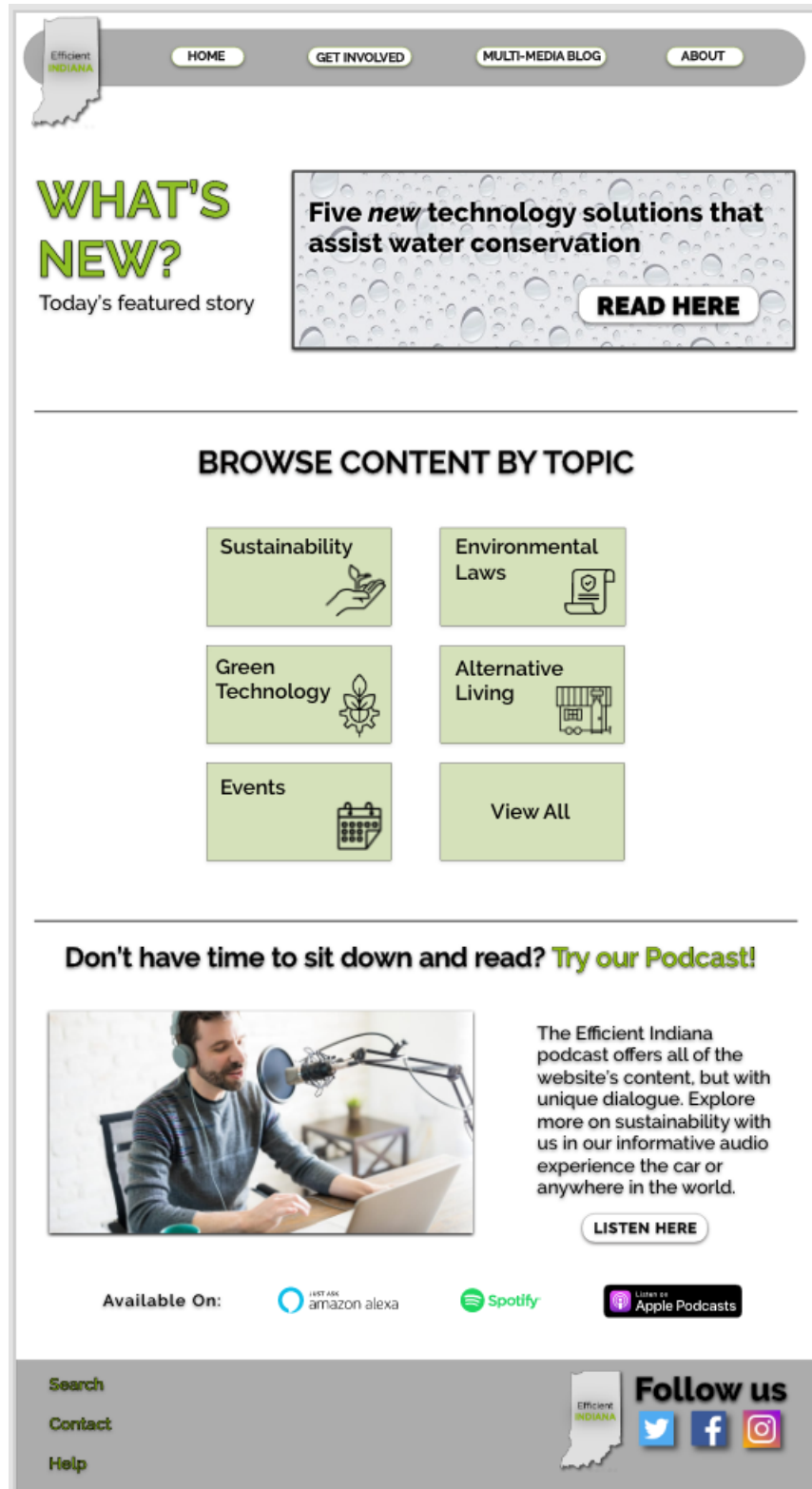


Figure 10: High-fidelity website. This is a new version of the “Our Stories” page, renamed “multi-media blog”.

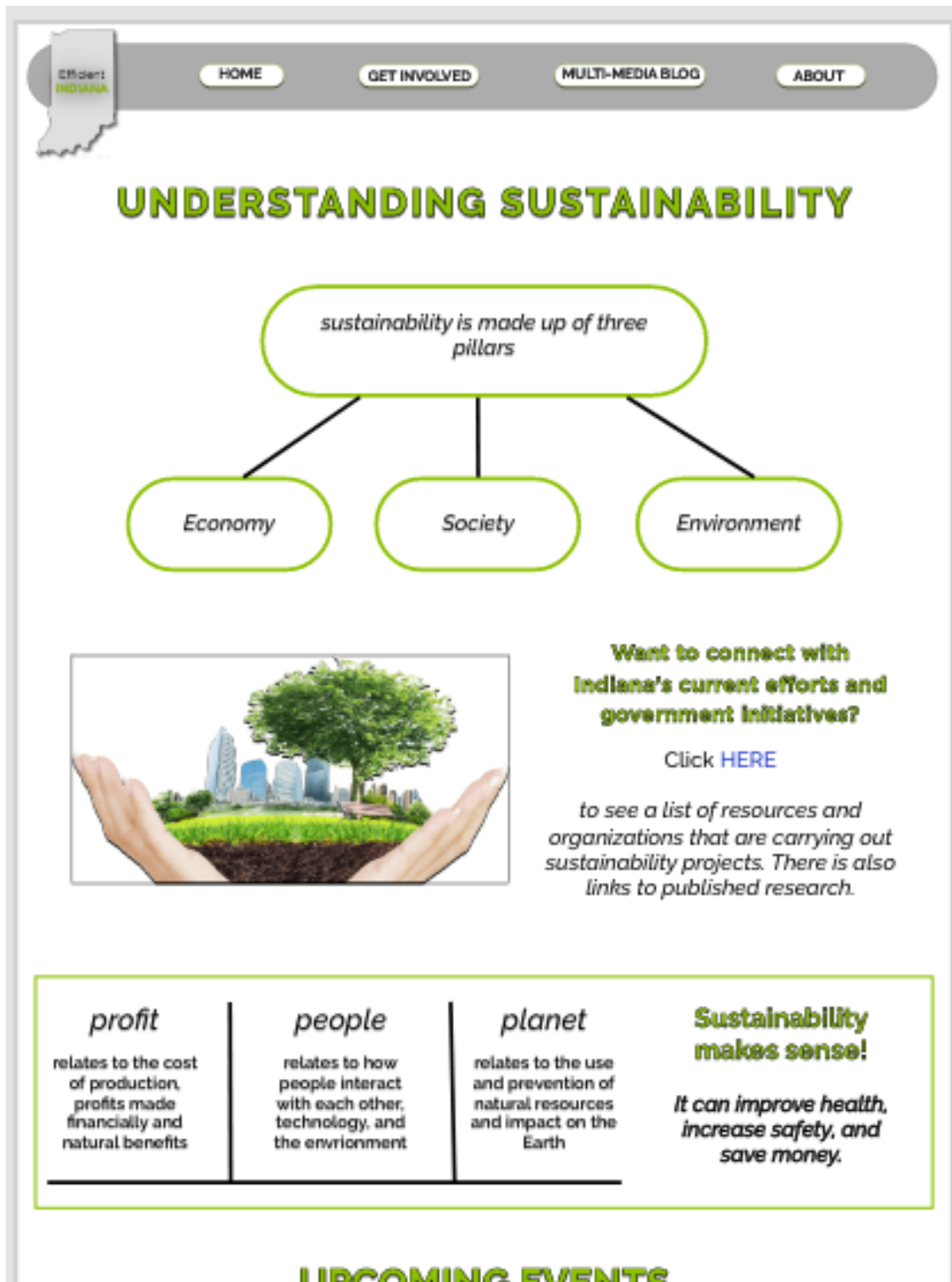


Figure 11: High-fidelity website. This is the top portion of the “Get Involved” page which consolidated information from the original and also the “Where to Start” page.



Figure 12: High-fidelity website. This is the continuation of Figure 12, or the updated “Get Involved” page.

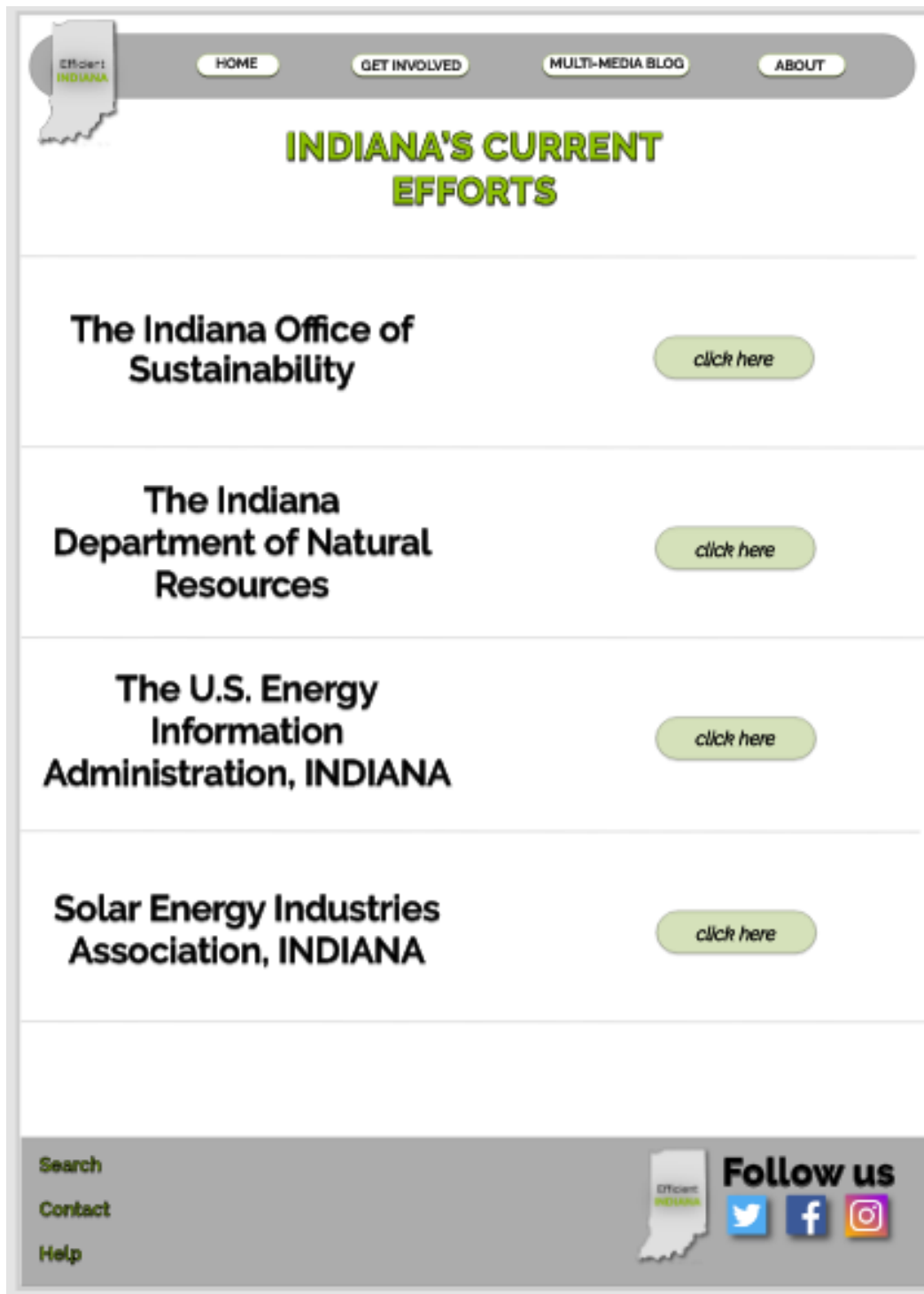


Figure 13: High-fidelity website. This is a new page representing “Indiana’s Current Efforts”, the previous prototype did not have a page made. This was done with the addition of access points for this page being added to the updated “Get Involved” page.



Figure 14: High-fidelity website. This is the revised “Alternative Living” content page located off of the “Multi-media Blog” page.

Social Media Campaign

The second component is the social media communication initiative. Efficient Indiana will be on the following platforms: Facebook, Instagram, and Twitter. Each of these social media channels will be utilized differently. Social media will be used to bring awareness to the brand and to share content. Additionally, metrics can be tracked through all of the platforms to accurately see the effectiveness of the content published.



Figure 15: an example of four Instagram posts that explain the Efficient Indiana brand, advertise new content, and showcase factual data pertaining to the state’s carbon footprint.

The social media campaign also directly ties into the in-person volunteer events and informational workshops. At this writing, many events are on hold due to the COVID-19 pandemic. However, virtual events will be available for participant registration on Facebook. Facebook events are user friendly, offering a place for people to join Efficient Indiana with their pre-existing, personal accounts. Facebook events also allow the users to access publicly submitted posts, detailed descriptions of the event, and location, all on one page.

Instagram will be used to bring awareness to Efficient Indiana and its causes through quick visual storytelling. Information such as chemical waste facts will be used to grab the attention of users and educate them about what's happening. There will also be teasers to the stories that are published on the website in hopes of directing user traffic to the original content. This is also the space that acts as a virtual ad-campaign. It brings awareness to the common person, in hopes of striking an emotional response.

The third social media platform being used is Twitter. Twitter will be used to link stories to the website and the podcast episodes. Additionally, it will be a place to retweet and share Indiana environmental news. All news platforms use social media to share content. Efficient Indiana can cross promote environmental news to the public to help spread awareness. Events, workshops and digital seminars that Efficient Indiana hosts can be promoted and tracked through hashtags. This also allows Efficient Indiana users to directly engage with content and join the social conversation.

Podcast

The Efficient Indiana podcast will offer users a different way to interact with the content hosted on the web. Some people might not have time to browse the internet, and this component hopes to eliminate that problem by offering one monthly episode that is 15 to 30 minutes long. They will be available monthly to ensure the Efficient Indiana team has enough time to record, edit and distribute a podcast of quality. It also makes it more flexible to schedule on-air guests. Available for streaming or download, the episodes can be played during work commutes or at any other convenient times. The content will consist of exploring sustainability with trusted professionals, and how to get involved on your own. The release of the podcast episodes will be included on the social media calendar.

Discussion

This creative project builds a hub to connect Hoosiers to dispersed and often difficult to find information about Indiana's environmental efforts and sustainable living practices. It was created for Indiana residents by engaging Hoosiers in the research and design phases. This project created a unique transmedia landscape that is catered to these individuals to educate them on sustainability and connect them to local resources.

Responses from the focus group participants demonstrate a lack of knowledge among Indiana residents. Three out of three said they were not aware of any of the informational facts shared with them revolving around Indiana's carbon impact and national standing. This insight shows that, with adequate marketing, this project could potentially answer an important regional need. The participants themselves voiced how this experience is important to Indiana: "I am from southern Indiana where there is a big agricultural community. There are so many opportunities for farmers to implement strategies that are sustainable or green. I think if they had a place to learn damage being done, and solutions, it would sway mindsets," (Female, 22, Southern Indiana).

Quantitative and qualitative data collected during usability sessions show an effective and functional design. While there were a couple common problem areas for the participants, every task was completed. The improvements made for the high-fidelity prototype never got to be tested. However, the results from the usability testing sessions of the mid-fidelity prototype indicate that the experience was enjoyable and the new improvements would only benefit the experience's updated design. The goal of accessible design was met, according to participant feedback and ease of information discovery.

Efficient Indiana contributes to Indiana's sustainability crisis through community access to resources and information. While there are many programs that aim to help Indiana with environmental awareness, none have done it through user-centered design. Efficient Indiana included the target audience throughout all stages of design in order to ensure that these stakeholders are better served.

Limitations & Restrictions

There were a few limitations and restrictions in this creative project. COVID-19 proved to be a challenge for in-person research and interaction. While I interacted virtually when I could, there were still setbacks. Facilitating a focus group virtually was an easy decision, and was effective when I carried it out. However, I had planned to carry out a second focus group with more participants that was delayed until the pandemic situation changes. It was postponed due to participant rescheduling and delays.

In retrospect, two of the usability testing tasks were either too simple or didn't aid in the discovery of useful information. For example, task number two gives away the location of "Where to Start," in the task description. The other task that was problematic is the third task. The third task asked users to "find where Indiana's current efforts are on the website." The context was lost in the vague description of the task and the section was only located in one hard-to-find spot on the home page. In the future, with the testing of the High-fidelity prototype, these tasks would be revised to garner more beneficial testing data.

Although the website has reached a high-fidelity stage of development, transmedia extensions of this information — the social media campaign, podcast, and live event planning — are still in infancy at this writing. Following stages of prototype development, the podcast will

require access to equipment and engagement of appropriate participants. Live events could be designed and held in virtual spaces, but live, in-person events would make for deeper, more memorable engagement in a Zoom-overload pandemic environment.

Conclusion

Efficient Indiana was developed to be an instrument for Hoosiers to address statewide carbon impact, become informed on sustainability, and get connected to public programs. This project brought difficult to find content into reach of the target audience, and was co-created by participants representing that population. Components of this transmedia experience were made and tested for quality, effectiveness, and enjoyment. This project on its own doesn't solve issues of sustainability in Indiana, but contributes to solutions by making information accessible, concise and encouraging. It's design works in concert with the longstanding phrase "think globally, act locally," by being a model that addresses the global climate crisis through state-wide education and community networking.

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