

Dr. Row's 555

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February 14th, 2025

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Executive Summary

This report outlines the proposed enhancements to Dr. Row's 555 website, addressing key challenges related to visibility, accessibility, user engagement, and long-term sustainability. The improvements will ensure her breathing technique reaches a broader audience, the website collects meaningful data for optimization, and that the student team empowers Dr. Row to manage and maintain the platform independently.

Community Partner Background

Dr. Row is a family medicine physician and founder of GLOW!, an organization focused on mindfulness and stress management. She developed the 555 Breathing Technique as a simple and effective tool for individuals experiencing stress or anxiety. However, the current website lacks visibility, feedback mechanisms, and accessibility features, limiting its impact.

Community Partner Project Opportunity

The 555 website is underutilized due to poor searchability, lack of analytics, and limited accessibility options. Dr. Row currently cannot receive immediate feedback from users, making it difficult to assess the technique's effectiveness. Additionally, she lacks the technical training to update or maintain the site, requiring external assistance for even minor changes.

Proposed Project Vision

To address these issues, we propose SEO implementation, Progressive Web App (PWA) development, feedback collection tools, and website analytics integration. Additionally, we will provide training and documentation to ensure Dr. Row can manage the website without relying on external support.

Approach

Our project is structured into four phases:

1. *Data Collection*: Implement Google Analytics and a feedback survey to gather user insights.
2. *UI/UX and Accessibility Enhancements*: Improve navigation, multilingual support, and ensure features are color-blind friendly.
3. *Website Visibility and Credibility Improvements*: Enhance site's SEO and integrate user testimonials.
4. *Sustainability Plan*: Provide training materials, video tutorials, and a structured transition plan for Dr. Row.

Feasibility

The project is achievable within the given timeframe and resources, using open-source and low-cost tools to minimize expenses. The primary challenge is ensuring Dr. Row can maintain the website independently, which will be addressed through step-by-step training and simplified content management solutions.

Scope and Cost Estimates

The improvements will focus on SEO, UI/UX enhancements, feedback collection, and training. Using a T-Shirt Sizing technique, we categorized tasks based on complexity. The estimated cost ranges from \$100 to \$500, covering optional tools and video recording equipment.

Risk Analysis

Key risks include Dr. Row's limited technical experience, low adoption of the PWA, and delayed SEO impact. These will be mitigated through comprehensive training, user education strategies, and iterative SEO optimization.

Community Partner Background

About the Organization

Rowena D. Pingul-Ravano, MD, FAAFP (Dr. Row) is a board-certified family medicine physician, Chief of Family Medicine at UPMC Magee Women's Hospital, and an Assistant Professor at the University of Pittsburgh. She sees patients of all ages and stages, and also focuses on obstetrics and women's health care. She works to empower women and believes strongly in the power of meditation and seeking optimism, leading to her GLOW! organization and her 555 Breathing Technique.

Dr. Row is the head of the GLOW! organization (Gratitude, Love, Optimism, Wellness) where she provides personal coaching sessions for lifestyle improvements and mental wellness. Through her personal experiences and practice as a family medicine doctor and obstetrician, she created a breathing technique, Dr. Row's 555, that is focused on helping individuals re-center during moments of stress or anxiety and that is easy to learn and remember.

Through the 555, Dr. Row's mission is to:

"Help those in a stressed or anxious state to relax and find inner peace quickly and sustainably, improving their overall well-being and allowing them to seek optimism, wellness, and gratitude in their life."

She uses it with a range of patients, from mothers in active labor to a 7-year-old getting a hearing test. The 555 goes beyond just her patients, as her patients reported using it with their children to get them to relax or just use it to start or end their day.

Current Technology Use and Communication Practices

Currently, Dr. Row's 555 is spread via word of mouth during patient appointments and on paper printouts given out during symposiums or conferences she speaks at. Occasionally when patients are in critical situations, Dr. Row walks through the 555 via phone call. As the 555 spreads and becomes integrated into more people's lives, Dr. Row would like for the 555 to be accessible by anyone at any time even without her physical presence.

Dr. Row has a live website built by a previous student team for helping others practice the 555 on their own time, but has not begun to use it with her patients or clients because of a mistake on the site, of which she does not know how to fix on her own. Dr. Row has limited prior experience with technology. The website built by the previous Information Systems (IS) consulting team is built with JavaScript & React.js and is hosted on Netlify. Edit access to the website's implementation is limited to one of the prior IS developers. Dr. Row makes the decisions about technology along with the help of prior IS consultants, and is willing to increase the role of technology in her work, focusing on how technology can expand her reach. She continues to rely on the prior IS consultants for development help and maintenance. There are no previous efforts to formalize tech support (for example in the form of training tasks or tutorial videos).

Dr. Row also lacks immediate feedback on the effectiveness of the 555, as she can only follow up with patients 3-6 months later at their next appointments. The 555's current site does not track any analytics, for example, how many people played the 555 video, how long they spent doing the meditated breathing, and how their mental state changed before and after the 555. It is also unknown how many people are visiting the site, how long are they staying on it, and other similar website analytics.

Community Partner Project Opportunity

Current Issues

User feedback collection:

The problem is that Dr. Row is currently unable to get immediate feedback from patients or anyone who practices the 555, with her only way of receiving feedback being through patient follow up appointments 3-6 months later, in-person comments during events, and the occasional text from a patient. Furthermore, all those metrics are qualitative, therefore she has no quantitative data to support her methodologies during talks.

This is important because not only would Dr. Row gain more insights into her patients and the effectiveness of her methodologies, but it would also give concrete statistics that she could use to support her work, furthering her mission. She has tried to send follow up emails to workshop participants but to have a feedback collection tool on the site would bring in a more steady stream of feedback, and feedback from users she may not have on her emailing list.

Website data analytics:

The problem is that Dr. Row is currently unable to see any metrics or analytics about the website. This makes it difficult to gauge if the site is of use to anyone.

This is important because without site analytics, Dr. Row cannot determine user engagement, track visitor trends, or measure the effectiveness of the site and its content. Site analytics would provide more quantitative data for Dr. Row to utilize. Information like the aforementioned could help drive data-driven decisions on user experience enhancements.

Website accessibility improvements and boosting credibility:

The problem is that currently (1) when one does a general search for breathing techniques or Dr. Row, the 555 site does not appear in the results. Additionally, (2) some patients expressed interest in making the site even easier to access; instead of having to go to a search engine and typing in the URL, they'd like it on the home screen of their phone. Furthermore, (3) Dr. Row has mentioned numerous success stories about patients benefiting from using the 555, but these testimonials are currently only communicated via

word of mouth. Lastly, (4) Dr. Row serves clients with families where English is not their primary language, and therefore occasionally runs into communication barriers when it comes to administering the 555.

This is important because in order for more people to discover the 555, (1) SEO is key for online discovery. (2) Making the 555 site easier to get to (for example only 1-click away) is imperative as patients could be trying to access it in stressful, time-critical situations. It could also help patients remain more consistent with their breathing practice. Additionally, (3) incorporating real patient testimonials will enhance credibility and make the site more personable, ensuring new users that the technique is effective and has a wide range of applications. Lastly, (4) making the 555 instructions more accessible to non-English speakers will broaden its potential user base.

Technology familiarization and training:

The problem is that Dr. Row does not have any access to the implementation of the site and currently relies on a student from the previous student team to help with website updates and maintenance. She does not seem to have much technical training on how the site was built or how to maintain it.

This is important because making sure Dr. Row is self-sufficient after student teams complete their project is key to keeping the site up to date and reducing technical costs as much as possible. Especially as we add more current content such as testimonials or links to Instagram posts, regular website updates will be necessary.

Project Opportunity Assessment

Since the previous student team was primarily focused on building the website from scratch, they did not have the opportunity to implement the advanced features and usability improvements that we now aim to introduce. Rather than starting over, our project is a continuation of their hard work, enhancing the existing site to ensure it is more functional, accessible, discoverable, and maintainable.

By addressing these gaps in feedback collection, analytics, accessibility, and long-term maintenance, we can empower Dr. Row to reach more users, gain valuable insights, and sustain the impact of her work for years to come. This project is an opportunity to elevate the 555 Breathing Technique from a static online resource to an actively engaged, data-driven, and widely accessible wellness tool.

Proposed Project Vision

Vision Statement

To make Dr. Row's site more accessible, visible, and user-friendly through user testing, feedback, and data analytics, while ensuring long-term sustainability.

Our Proposed Solution:

To address the technological and accessibility challenges surrounding Dr. Row's 555, our team proposes a comprehensive enhancement of the existing website. The proposed improvements are prioritized based on Dr. Row's key focus areas:

High-Priority Enhancements:

1. *Search Engine Optimization (SEO)*: Improving visibility to ensure users can easily discover the 555 technique online.
2. *User Feedback Collection*: Implementing a pop-up feedback button to gather real-time user insights while balancing usability concerns.
3. *Language Translation*: Expanding accessibility by enabling multilingual support to reach non-English-speaking users.

Lower-Priority Enhancements:

1. *User Interface (UI) Changes*: Adjusting the landing page to feature the "Breathe 555" technique and testimonials more prominently.
2. *Progressive Web App (PWA) Implementation*: Allowing users to save the site to their mobile home screens for better accessibility, but requiring additional maintenance.
3. *Google Analytics Integration*: Tracking engagement and site performance to provide data-driven insights for future improvements.
4. *Training Tasks for Dr. Row*: Providing structured training materials and video tutorials to enable Dr. Row to manage the website independently in the long term.

Problem Need and Directive

Currently, Dr. Row's 555 is primarily shared through word of mouth, printed materials, and in-person demonstrations. While a website was developed for the sole purpose of making the technique more widely available and not for commercial gain or competition, it is not easily discoverable online, lacks tracking capabilities for engagement, and is underutilized due to usability issues. Furthermore, Dr. Row does not have the technical expertise or

access to maintain the site, making it difficult to update content, track site performance, or optimize outreach.

By enhancing the website’s discoverability, functionality, and sustainability, this project provides an opportunity to expand the reach of Dr. Row’s 555, making it accessible to a broader audience while ensuring that Dr. Row has long-term control over her digital platform.

Proposed Technology and Alternative Solutions

The charts below categorize different proposed technology solutions and alternative approaches for improving Dr. Row’s 555 website. Solutions highlighted in green indicate the approaches we have chosen to implement based on feasibility, impact, and sustainability. The selected solutions ensure greater accessibility, usability, and engagement, while minimizing unnecessary complexity and costs.

555 Accessibility		
	Benefits	Risks
Color blindness	Increases accessibility for color-blind users	None
Language translation	Increases accessibility for non-english speaking users	None
UI change: moving “Breathe 555” to the landing page	Fewer clicks to access the main breathing tool	Potentially difficult to implement, UI needs to be designed well and tested thoroughly
555 Progressive Web App (PWA)	An app on home screen is more easily accessible No internet access needed	Potential resistance from clients because of new technology change
555 Mobile app on app store for iOS/Android	An app on home screen is more easily accessible No internet access needed More official	Difficult to sustain and make feature changes Difficult to launch app on app store and costly

Website Visibility/Traffic Improvements		
	Benefits	Risks
Search Engine Optimization (SEO)	Allows online users to discover the 555 through adjacent relevant searches	None
Add patient testimonials	Gives the website a more personable feel and enhances the credibility of the technique Better SEO	Requires more frequent website updates
Blogs	Better SEO	Difficult to maintain and gets old with time
Testimonials vs. Blogs: <ul style="list-style-type: none"> • Testimonials provide social proof and credibility, helping build trust with new users. They require fewer updates and are generally more engaging for potential users. However, testimonials are user-dependent, meaning they rely on Dr. Row receiving and updating user feedback regularly. • Blogs improve SEO performance and allow for more detailed content, keeping the 		

website fresh and relevant. However, they require consistent updates to remain effective, and outdated blog posts can make the site look inactive.

User Feedback Collection		
	Benefits	Risks
Pop-up feedback button	Quick feedback from user available without overcomplicating the UI	Potentially annoying to user Risk of not being interacted with
Feedback tab	Feedback available to gather from user	Risk of not being interacted with. Likely higher chance of not being interacted with than a pop up
No feedback UI	Less UI clutter	No feedback
<p>Pop-Up vs. Feedback Tab:</p> <ul style="list-style-type: none"> • A pop-up feedback button is highly visible and encourages immediate responses, leading to higher engagement. However, it can be intrusive and disrupt the user experience, especially if it appears too frequently. • A feedback tab is less disruptive and allows users to provide feedback at their convenience. However, it is less noticeable, meaning fewer users may engage with it, leading to lower response rates. <p>Feedback vs. No Feedback:</p> <ul style="list-style-type: none"> • Gathering feedback allows for continuous improvement by understanding user needs and experiences. However, it introduces UI elements that may slightly impact design aesthetics. • No feedback UI keeps the design minimal and uncluttered, but it prevents valuable user input from being collected. 		

Website Data Analytics		
	Benefits	Risks

Google Analytics integration	Lots of data such as demographic, user behavior, traffic sources, session duration, etc. Is free of cost	More complex implementation
Youtube views as data collection	Simple and easy as it requires no implementation	Only 1 data point: views Only reflective of views for one page of the website
No analytics	No implementation	No data collected

Google Analytics vs. YouTube Video Views:

- Google Analytics provides detailed insights into user behavior, including session duration, demographics, and traffic sources, allowing for data-driven improvements. However, it requires proper setup, ongoing monitoring, and interpretation to be useful.
- YouTube Views as Data Collection is simple to implement and requires no additional setup beyond embedding videos. However, it only tracks video views and provides no insight into broader site engagement or user behavior.

Analytics vs. No Analytics:

- Implementing analytics allows for continuous site optimization, helping track what features users engage with and identifying areas for improvement. However, it does require technical setup and some level of monitoring.
- No analytics eliminates complexity and requires no maintenance, but it results in zero data visibility, making it impossible to measure site effectiveness.

Site Sustainability		
	Benefits	Risks
Training Tasks for Dr. Row	Slowly build up Dr. Row's technical foundation and increase her confidence in the web app and her own skills	Could become overwhelming if tasks scale too fast in difficulty
Recorded video tutorials for Dr. Row	Is an asynchronous resource that Dr. Row can refer to on her own	Tutorials may become outdated as technology

		changes
Continue to use previous IS consultants for help on a negotiated hourly rate	Allows Dr. Row to fully focus on her practice and relieves her from having to learn the technical aspects	No guarantee how long the student developer will be able to stay on board
<p>Training vs. Relying on Student Developers:</p> <ul style="list-style-type: none"> • Training Dr. Row allows her to gain independence in managing and updating the website, ensuring long-term sustainability. However, it requires time and effort to learn technical skills, and there may be a learning curve before she becomes fully comfortable. • Relying on student developers provides immediate expertise and support, reducing Dr. Row's technical burden. However, it is a temporary solution—student developers may not always be available, and continued reliance on external help may increase long-term costs. 		

Stakeholders

Dr. Row (Primary Stakeholder and Administrator): She will use the website to share her breathing technique with patients and a broader audience. She will also benefit from training that enables her to manage and update the site independently.

End users (Patients and General Public): Individuals seeking stress relief and mindfulness techniques will access the site for guided breathing exercises. These users may include patients, students, medical professionals, and individuals facing high-stress situations.

Healthcare providers and educators: Doctors, therapists, and wellness coaches may refer patients or clients to the 555 Breathing Technique, using this website as an educational tool.

System administrator: While the project aims to make the site self-sustainable, occasional support may be needed for complex updates, which could be completed by future student teams or external consultants.

Value to Users and Stakeholders

For users, the improvements will make Dr. Row's 555 website more readily available, especially in stressful or time-sensitive situations. Currently, patients and other users can only access the method through in-person sessions or word-of-mouth, limiting its reach. By optimizing search engine visibility (SEO) and enabling Progressive Web App (PWA) functionality, users will be able to easily find and access the technique anytime, anywhere, directly from their mobile home screens. This will help individuals integrate the technique into their daily lives, making it a more practical and effective stress-management tool.

For Dr. Row, these improvements will eliminate key technological barriers that currently prevent her from maintaining and optimizing the site. At present, she lacks control over updates and cannot track engagement or collect meaningful feedback. By integrating user feedback mechanisms and website analytics, she will gain quantifiable data on user engagement, helping her refine and improve the technique. Additionally, with training resources and documentation, she will no longer have to rely on external consultants for website updates, reducing long-term costs and ensuring self-sufficiency.

The proposed solution aligns with Dr. Row's mission of promoting mindfulness and wellness while ensuring long-term sustainability. By making the site more discoverable, user-friendly, and data-driven, this project lays the foundation for continued growth and broader adoption of Dr. Row's 555.

From a broader impact perspective, the project will also benefit new users and healthcare professionals who may recommend the technique to patients. Multilingual accessibility improvements will expand the reach of 555 to non-English-speaking communities, while testimonials from real users will help establish credibility and encourage wider adoption.

Potential Risks

Dr. Row's Limited Technical Experience

Dr. Row's lack of familiarity with website management makes it difficult for her to update content, track analytics, or troubleshoot minor issues after the project is completed.

In order to mitigate this, we will provide comprehensive training, including step-by-step video tutorials, a written guide, and live walkthrough sessions to ensure she feels confident managing the site. Additionally, we will keep the website's implementation and upkeep as simple as possible, using user-friendly techniques that minimizes the need for technical expertise.

Low User Engagement with Feedback Collection

If users do not participate in the feedback surveys or engagement tracking, Dr. Row may not have a way to collect meaningful data on the effectiveness of the 555 technique.

In order to mitigate this, we will strategically place feedback prompts at key moments (for example after completing the breathing exercise). The surveys will be short, engaging, and non-intrusive, and we will also explore email follow-ups or embedded calls-to-action to increase response rates.

Low Adoption of the Progressive Web App

Some users may not be familiar with installing a PWA on their mobile home screens, leading to low adoption of this feature.

In order to mitigate this, when Dr. Row first introduces the website to her clients, she will walk them through the very short process of installing a PWA. Once it is installed, it does not need to be installed again.

Approach

Our team's strategy for improving Dr. Row's website consists of four key phases: data collection, user experience and accessibility enhancements, website visibility improvements, and long-term sustainability.

1. Implementing a Data Collection Strategy

To enable data-driven decision-making, we will first integrate tools that allow Dr. Row to collect both quantitative and qualitative feedback on user engagement and experience.

- Google Analytics Integration: Implementing Google Analytics within the website codebase will provide quantitative insights, such as site traffic, user behavior, and interaction patterns.
- User Feedback Collection: A pop-up feedback button will be added to collect qualitative user responses, allowing Dr. Row to receive direct input from website visitors.

2. Enhancing UI/UX and Accessibility

With a robust data collection strategy in place, we will implement key usability and accessibility improvements based on user needs. Thorough user testing will be conducted to validate these changes before full deployment.

- Optimizing the landing page: The "Breathe 555" practice will be made the focal point of the homepage to reduce friction in accessing the breathing technique.
- PWA implementation: The website will be converted into a PWA, allowing users to add it to their home screens for instant access, even in offline scenarios.
- Multilingual support: A language translation feature will be implemented to accommodate non-English-speaking users.
- Accessibility enhancements: Improvements for color-blind users will be introduced to ensure inclusivity.

3. Increasing Website Visibility and Credibility

To ensure that more users can discover and trust Dr. Row's 555, we will implement SEO best practices and credibility-building features.

- Search Engine Optimization (SEO): SEO strategies will be applied to make the site more discoverable through search engines. This includes keyword optimization, metadata enhancements, and backlinking strategies (refer to the SEO guide in the appendix).

- Testimonials section: A dedicated testimonials section will be created, showcasing real success stories to build trust and credibility while also contributing to SEO rankings.

4. Ensuring Long-Term Sustainability

Since Dr. Row currently relies on external consultants for website updates, it is critical that she gains the skills necessary to manage the website independently after our project concludes. To achieve this, we will provide:

- Training modules: A series of structured training tasks designed to help Dr. Row gradually familiarize herself with basic website management functions.
- Video tutorials and documentation: Step-by-step instructional videos will be developed to guide Dr. Row through updating content, tracking analytics, and troubleshooting minor issues.
- Contingency support plan: In the event that Dr. Row encounters more complex technical issues beyond the scope of the provided training, we will establish a structured contingency plan. This includes:
 - A resource guide listing potential external support options, such as freelance developers or university-affiliated student consultants.
 - A simplified troubleshooting checklist for common website issues.

Projected Milestones

To effectively address the challenges faced by Dr. Row's 555 website, our team will implement an approach that focuses on user-centered design, progressive enhancement, and data-driven decision-making.

We will use modern web development strategies, SEO optimization, user feedback mechanisms, and training resources to create a long-term solution that Dr. Row can manage independently. Each element of the approach is designed to enhance usability while ensuring that the platform remains effective without requiring ongoing technical intervention. Several parts of the approach are independent of each other, so as a team we will split up the tasks.

Timeline

Tasks to be completed before spring break (March 3rd- March 7th):

- Get wireframes for pop-up feedback button approved
- Get wireframes for the “Breathe 555” practice front and center on the landing page approved
- Get wireframes for the testimonials section approved
- Implement Google Analytics into codebase for quantitative analysis
- Convert web app into a PWA mobile app format
- Language translation for site
- Color blindness accessibility for site

Tasks to be completed after spring break:

- Implement the pop-up feedback button
- Implement the “Breathe 555” practice front and center on landing page
- Implement Search Engine Optimization (SEO)
- Implement the Testimonials section

Weekly throughout rest of the semester starting February 17th:

- Create training tasks for Dr. Row to complete
- Create accompanying video tutorials for implementation

User Testing will be conducted the week of February 17 for initial wireframes.

Expected Outcomes

Essential Features	Outcome	Current	Measurement Type
Implementation of Google Analytics into codebase	For quantitative analysis for our client's use	None	Number of data metrics available to client
Pop-up feedback button	For qualitative analysis for our client's use	None	Number of user responses
Convert web app into a PWA mobile app format	Dr Row's patients can more easily access the app and create a breathing habit	None	App traffic through Google Analytics
SEO implementation	Dr. Row's patients and potential users can more easily locate the site	None	App traffic through Google Analytics
Language translation for site	Allows Dr. Row's non-English speaking patients to utilize the site	None	Demographic information through Google Analytics
Color blindness accessibility for site	More general accessibility for potential users of Dr. Row's site	None	ADA score check

Nice-To-Have Features	Outcome	Current	Measurement Type
Move the "Breathe 555" practice front and center on landing page	Easier access to exercise for users	None	Number of plays on breathing exercise via Google Analytics
Testimonials page to build credibility for site (also improves SEO)	More user interest and interaction with the site. Greater site visibility through improved SEO	None	App traffic via Google Analytics

Non-Functional Requirements

Ensuring the long-term sustainability of the web app is a priority. This includes:

- Training tasks for Dr. Row to complete measured by number of tasks we create and number of hours she has to hire a developer for post-project.

- Accompanying video tutorials for implementation measured by number of videos we create and number of hours she has to hire a developer for post-project.
- The frequency and necessity of external technical support requests over time, indicating whether Dr. Row can sustain the platform on her own.

Benchmarks

- Dr. Row's 555 site is currently on page six on google search when "555 breathing technique" is searched. We aim for our SEO to bump that up to the first two pages
- No current users for the site, given this we aim for at least one user a day (1 daily site access which can be tracked with analytics).

Feasibility

The feasibility of this project depends on three main factors: the timeline for implementation, the availability of required resources, and the sustainability of the solution after deployment. Given the outlined tasks and our team's technical expertise, we believe that the core features—SEO optimization, PWA development, user feedback collection, UI improvements, and website analytics implementation—are achievable within the project timeline. However, some aspects, such as backend data collection and UI changes, may require additional financial resources, particularly if third-party services or development tools are needed.

Timeframe and Consultant Skills Fit

Our team possesses the necessary technical knowledge to implement SEO improvements, PWA features, and feedback collection mechanisms within the given timeframe. The more complex components, such as backend data collection and UI changes, may present challenges, but we plan to use available open-source tools and structured implementation phases to mitigate potential delays.

We have identified that setting up a backend for tracking user engagement (e.g., time spent on the site, video completion rates) may require more advanced technical infrastructure. Additionally, video recordings, while relatively simple to implement, may require additional recording equipment (microphones, cameras) for high-quality production. If financial constraints prevent us from securing professional equipment, we will explore lower-cost alternatives such as screen recordings, voiceovers, or AI-generated captions to ensure accessibility.

Client Capabilities and Long-Term Sustainability

One of the primary concerns for sustainability is ensuring Dr. Row can independently manage and update the website after our involvement ends. Currently, she relies on past IS consultants for site maintenance, which is not a sustainable long-term strategy. Given that Dr. Row currently lacks the technical expertise to manage and update the site independently, a structured transition plan is necessary to empower her with the skills and resources needed for long-term sustainability.

After the implementation of the proposed improvements, Dr. Row will be the primary maintainer of the website. However, given her limited technical experience, we will

implement a three-pronged approach to ensure the sustainability of the system:

1) Simplification of Website Management:

- a) We will streamline the implementation to make it as non-technical and user-friendly as possible, ensuring that updates to content and minor modifications can be made without coding knowledge.
- b) The website will utilize a low-maintenance CMS or a Google Sheets-based data entry system, which will allow Dr. Row to add or modify content easily without needing to interact with code.
- c) A PWA structure will reduce complexity compared to a traditional mobile app, eliminating the need for app store management and updates.

2) Training and Documentation with Dr. Row:

- a) A written technical guide will be created with step-by-step instructions for routine website tasks.
- b) We will develop a set of easy-to-follow video tutorials demonstrating a variety of actions she might need, such as how to upload videos or how to update patient testimonials.
- c) We will conduct live training sessions with Dr. Row to walk her through basic tasks and ensure she is comfortable managing the system.

3) Establishing an External Support Pathway

- a) Since Dr. Row does not have an in-house IT team, we will explore options for occasional external support to help with major updates or troubleshooting. This may include freelance website developers or reaching out to past IS student consultants.
- b) To make external assistance more efficient, we will document all technical configurations so that any future developer can quickly understand the structure of the site.

To further safeguard the long-term sustainability of the website, we will establish a contingency plan in case Dr. Row encounters unexpected technical challenges. This plan contains a directory of possible technical help resources as well as a troubleshooting guide covering typical issues. Furthermore, we will offer suggestions for reasonably priced outside maintenance services that Dr. Row might use as needed, guaranteeing that she has several options for assistance even outside of the current student consultant team's direct involvement.

Dr. Row's Capabilities and Training Plan

While Dr. Row is not currently well-versed in website management, our goal is to equip

her with enough knowledge to handle day-to-day updates and recognize when external help is needed. By the end of the project, Dr. Row will be trained in updating content, reviewing user engagement metrics, and handling common troubleshooting issues.

Dr. Row's organization currently has no dedicated IT personnel, which means she relies on past student consultants for any website-related assistance. The only technological resources available are her personal laptop and mobile phone, with no structured IT support infrastructure in place. Our solution is designed to be as self-sustaining as possible, requiring minimal technical intervention.

Scope and Cost Estimates

The proposed project consists of multiple enhancements to Dr. Row's 555 website, including search engine optimization (SEO), Progressive Web App (PWA) development, user feedback collection, UI updates, website analytics, and training for sustainability. To assess the scope and complexity of these improvements, we will estimate the effort required using the T-shirt sizing technique, which categorizes tasks as small (S), medium (M), and large (L) to provide a high-level understanding of workload and complexity.

Project Scope Breakdown

Project Component	Description	Complexity
SEO Implementation	Improve website visibility through metadata optimization, keyword analysis, and backlinking	M
PWA Development	Convert the site into a PWA, allowing users to add it to their home screen for quick access	S
User Feedback Collection System	Implement pop-up surveys and a permanent feedback tab to gather user insights	L
Website Analytics Integration	Add Google Analytics tracking to measure video views, session duration, and user engagement	M
UI/UX Enhancements	Modify landing page to prominently feature "Breathe 555," improve navigation, and introduce accessibility features	L

Accessibility Improvements	Add color-blind-friendly UI options and language translation features	S
Video Recording for Training	Create instructional videos for users and sustainability training for Dr. Row	S
Technical Documentation & Training Resources	Develop step-by-step guides and recorded tutorials to ensure Dr. Row can maintain the site independently	S
Site Testing and Deployment	Conduct usability testing, fix bugs, and deploy the final version	M

Cost Estimate

The estimated cost for implementing the proposed enhancements to Dr. Row's 555 website is minimal, as most tools and technologies used, such as Google Analytics and SEO optimizations, are free. However, some additional costs may arise based on specific needs.

Total Estimated Cost: \$0 - \$250

Expenses	Description	Estimated Cost
SEO Tools	Optional paid tools for advanced keyword analysis	\$0 - \$200
Google Analytics	Free website tracking and analytics tool	\$0
Progressive Web App (PWA) Development	No external cost, included in development	\$0
Accessibility Enhancements	Language translation tools,	\$0

	color-blind-friendly UI improvements	
Video Recording for Training	Optional microphone, camera, or screen-recording software for videos	\$0 - \$50
Technical Documentation	Free digital guides and recorded materials	\$0

Risk Analysis

Risk	Description	Likelihood	Impact	Early Warning	Abatement Strategy
Scope creep	The project may expand beyond the initial scope due to additional requested features. This could delay delivery.	Medium	High	Frequent new feature requests, changing requirements from Dr. Row.	Clearly define project scope at the start. Use Agile principles to prioritize essential features. Maintain a feature backlog for future development.
Dr. Row's limited technical familiarity may impact long-term sustainability	Dr. Row currently relies on external consultants for website updates. If she is unable to manage the site independently, the platform may become outdated or underutilized.	High	High	Hesitation or difficulty during training sessions, reliance on external help even for small updates.	Provide step-by-step documentation, video tutorials, and live training. Implement a low-maintenance content management system (CMS) and ensure a structured transition plan.
Harder to measure outcomes with too many changes implemented at once	With all of our SEO, UI, and accessibility changes, even if app traffic increases, we will not know what necessarily	High	High	No way to see early on, the app is not currently used so the traffic won't show any difference until after we are done with the	We will conduct thorough user testing to compartmentalize testing each of our features, especially the UI changes.

	caused it			project.	
Low user engagement with feedback surveys	Users may not interact with pop-up surveys or feedback tabs, leading to insufficient data for assessing the technique's effectiveness.	Medium	Medium	Low response rates on feedback surveys, little data collection.	Optimize survey placement (for example after completing the breathing exercise), keep feedback forms short and engaging, and test different methods such as email follow-ups.
PWA adoption may be low	Some users may not understand how to install or use the PWA, limiting its effectiveness.	Medium	Medium	Few users installing the PWA, lack of engagement with the app-like features.	Have Dr. Row help the patient download the PWA when she teaches the 555 to them for the first time.

Appendices

[Client Context Analysis](#)

[SEO Guide](#)