



David Fazio
Helix Opportunity LLC.
833 Market Street Suite 421
San Francisco, CA 94103
dfazio@helixopp.com
(510) 590-7363

Technical Proposal: W3C - Website redesign
Prepared Exclusively For: World Wide Web Consortium (W3C).

This proposal is a joint venture submitted between Helix Opportunity LLC and TechJini Inc, with Helix Opportunity presiding as the Primary Contractor, overall lead, principle, project consultant, and manager. TechJini is included in this proposal as the sub-contractor that will provide the technical development operations necessary to build the digital property articulated herein.



Helix-W3C - Website redesign	1
1. Our Understanding	3
1.2 Project objectives	3
1.3 Project purpose	3
1.4 Key actors of website	4
1.5 High Level Scope	4
1.6 Key success factors	4
2. Proposed Solution	5
2.1 Solution Highlights for the website	5
2.2 Notes and Assumption	6
2.3 Exclusions	7
2.4 Dependencies on Client	7
2.5 Non Functional Requirements	7
3. Approach & Timeline	8
4. Organizational Experience	9
5. Previous Work	10
6. Engineering Process	13
6.1 Continuous Integration	13
6.2 Development Tools	14
6.3 Proposed Team	15
6.4 Assembla	17
6.5 Deliverables	19
7. Commercials	20
8. Annexure	20
8.1 About Us	21
8.2 Testimonials	23
8.3 Resources referred	23

1. Our Understanding

The current website of W3C was implemented ten years ago and the organization has determined that it is not as effective in supporting the W3C's mission and goals as it could be. W3C is looking to incrementally redesign its Website and revise the information architecture, to show the world who they are and what they offer, to improve the organization and usability of the website for key audiences, communicate the W3C brand more effectively, and motivate people to participate in the organization.

The current website is well-designed but

- Is hard to navigate
- Is outdated in look and not consistently responsive
- Has too much content that is unsorted
- Lacks a cohesive look
- Has accessibility weaknesses

1.2 Project objectives

- Solidify brand authority, consistent design, uniform appearance
- Create an engaging, accessible and easy to navigate experience
- Increase engagement (Members to join) and funding (crowdsourcing) (Join/Donate buttons)
- Ability to re-use redesign (to expand to other phases); enable W3C to evolve the style guide to cater for new needs & usages; likewise empowers W3C to make the information architecture evolve based on new themes, priorities
- Optimize (layout, tooling) to make content that meets user needs (content design)
- Optimize presentation, then archive redundant/stale content (inventory of the current content / URL Mapping and 301 Redirects)
- Simpler and robust editing/maintenance

1.3 Project purpose

W3C believes that by implementing current web best practices and technologies, revising the information architecture, creating a content strategy and revamping the visual design, they can provide their audiences with the best information in a more user-friendly fashion, motivate participation in the organization, and communicate the nature and impact of the W3C more effectively.

1.4 Key actors of website

Based on our understanding of the requirements we have identified following different actors of the Application

Actors	Description
Members	Who will be able to access member-only modules of website, specific to their member profile, after login.
Non-Members	Who will be able to access the website modules and pages that are intended for the public.

1.5 High Level Scope

The website will have following Major Pages:

- Website homepage
- Primary navigation targets (2):
 - "Standards"
 - "Participate"
 - "Membership"
 - "About"
- <https://www.w3.org/Consortium/>*
- W3C Blog
- Vertical industries landing pages
- Public Work Groups homepages (ala IETF data tracker)
- /TR homepage (only the frame)
- Account pages (request, my profile) (and it's edit pages))

1.6 Key success factors

Following are the key Success Factors for the project:

- Modern look & feel
- Highly scalable architecture
- Fast & Responsive user experience
- Adherence to timeframes & estimates
- Understand client's existing system & APIs that need to be integrated

2. Proposed Solution

Responsive website will be built on Wordpress platform and will be accessible via browsers.

We recommend Wordpress for the following reasons:

- Easy maintenance
- Easily customizable
- Best for accessibility
- Easily available plugins
- Periodic security patches
- SEO-beneficial permalinks
- Easy Upgrade compared to other CMS
- Open source based on PHP and MySQL

2.1 Solution Highlights for the website

- Compatible with Mobile, Tablet, Laptop, Desktop devices
- Compatible with the latest browser versions of Chrome, Firefox, Internet Explorer & Safari
- Responsive with mobile first approach
- Compliance with W3C URI persistence policy
- Integrates with existing W3C-maintained back-end services
- WCAG 2.1 with level AA as a minimum support
- Content Migration
 - Scripts will be written to migrate current content to Wordpress.
- Cognitive Accessibility best practices
 - Utilizes Helix API for accessibility features

2.2 Notes and Assumption

- Provided in a separate, confidential, document to the W3C.

2.3 Exclusions

- Provided in a separate, confidential, document to the W3C.

2.4 Dependencies on Client

- Provided in a separate, confidential, document to the W3C.

2.5 Non Functional Requirements

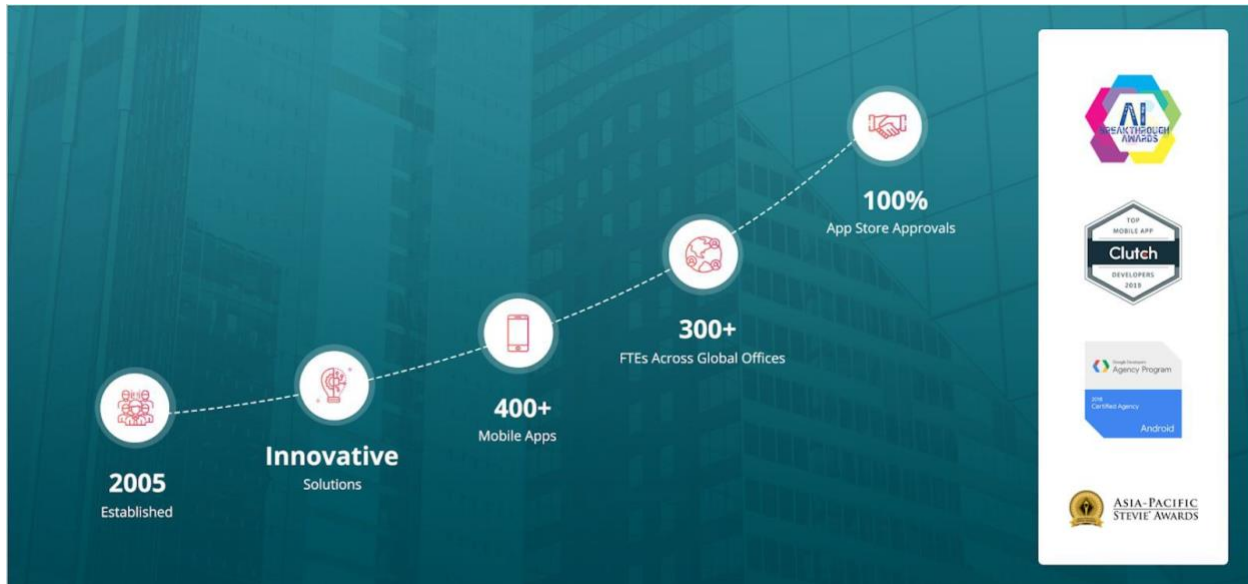
- Provided in a separate, confidential, document to the W3C.

3. Approach & Timeline

Delivery Approach

- Provided in a separate, confidential, document to the W3C.

4. Development Operations Organizational Experience



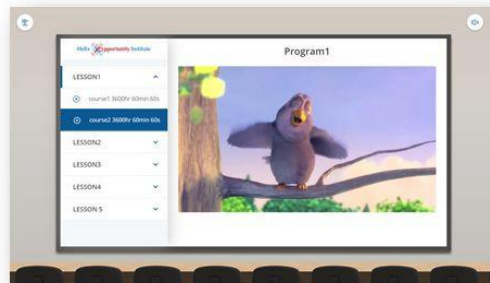
Our expertise includes:

- TechJini Studio - UX, UI, CGI, Animation, AR/VR
- Web - Development using the cutting edge including JavaScript based frameworks & CMS.
- Mobile - The entire gamut of dev toolkits. This is our original sin/strength that led to our acquisition and membership to the exclusive invite-only Google Developers Agency Program.
- Cloud - Over 90% of the backend platforms we developed are housed in cloud, primarily AWS and Azure.
- ODC & Stateside Staffing: We have had several runaway successes in setting up offshore development centers housed with superlative quality developers.

5. Previous Work

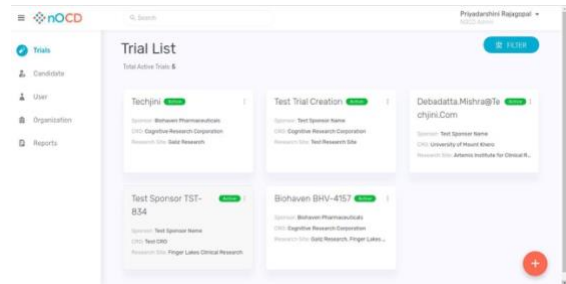
Helix Opportunity Institute

- This project was funded by the State of California, under the authority of the California Department of Rehabilitation's self-employment program.
- Helix Opportunity Institute is an accessible, and inclusive, online Learning Management System Software as a Service application. It was Front-End developed with Angular JavaScript and integrated with a PHP Moodle Back-End.
- It strictly adheres to WCAG 2.0 AA Guidelines, along with cognitive accessibility best practices.
- Users may view course videos, live zoom webinars, and take assessments related to course curriculum. Participation is tracked, and analyzed, by the administrative backend.
- Technology Skillset: Angular JS, PHP



NOCD - Clinical Trials

- Company engages with research companies to provide clinical trial recruitment services, tapping into the various social networks and database of people interested in OCD.
- The current process relies on several manual processes and handoffs, with limited visibility into conversion rates.
- TechJini created a clinical trial web portal to be used by the various stakeholders
- Compliant with HIPAA and HITECH regulations
- Technology skillset: Python, Angular



E4S

- The most popular and visited student job website in the UK, can be viewed in three ways- as a Jobseeker, as an Employer and as Admin. Publishes and consumes job feeds. More than 14,500 jobs are posted in last month
- Around 25,000 job alerts are sent daily to the jobseekers by running batch files
- Lucene search engine integration. Highly scalable to tackle the very high traffic it receives.
- Technology skillset: PHP



Collective

- Robustly architected front-end using Angular.js, HighCharts, HighMaps and Bootstrap. Follows MVC paradigm.
- Implemented complex data visualizations using Highcharts
 - Spline charts
 - Country/State data maps
 - Stacked Bar graphs
- Reporting dashboard for Collective where they visualize large amount of advertising analytics data to measure their campaign performance for various clients.



Parcel Point

- Leading edge retail and e-commerce backend systems provider in Australia
- Focuses on enabling parcel points for retailers and e-com clients via turnkey fulfillment systems
- TJ team helped them to rollout their systems for Woolworths, eBay, Glue and French Connection
- Helped the partners to expedite their GTM timelines and reduce development budget
- Technology skillset: JavaScript (Angular JS, React JS and node.js)



6. Engineering Process

6.1 Continuous Integration

- Agile methodologies which allow for frequent builds, quality checks and client releases.
- Completely automated without any manual intervention
- Ensures visibility to stakeholders on software progress and faster feedback to technical team

CI/CD Setup:

- Jenkins master setup (AWS EC2) & Jenkins slave setup (Mac Mini)
- Docker setup
- Loading projects on Jenkins - Web, Android & iOS(React Native)
- Static code analyzer (Sonar) setup & integration with Jenkins
- Setting up Jenkins plugins (HTML reports, mail/slack alert), rule based access and security.
- Setting up Continuous Delivery for production deployment
- Automating Test and Development environment deployment



6.2 Development Tools

Type	Tools
Source control & Versioning	Git
CI Tool	Jenkins
IDE	Android Studio, XCode
Programming Language Used	Symfony, PHP7, Swift, Kotlin
Coding Standards	TechJini Coding Standards for Symfony, PHP7, Swift, Kotlin
Database	MySQL
Client Data Storage	SQLite
Project Management	Assembla
Timesheets	Parabola (In-House Tool)
Static Code Analyser	SonarQube

6.3 Proposed Team

Role	Responsibilities
Project Manager	<ul style="list-style-type: none"> ● Determine and define project scope and objectives ● Manage resources in to achieve objectives ● Prepare & allocate budget based on scope of work and resource requirements ● Track project costs in order to meet budget ● Develop and manage a detailed project schedule and work plan ● Provide project updates on a consistent basis to stakeholders about strategy, adjustments, and progress ● Manage contracts with vendors and suppliers (assigning tasks and communicating expected deliverables) ● Utilize industry best practices, techniques, and standards throughout entire project execution – including accessible & inclusive design ● Monitor progress and make adjustments as needed ● Measure project performance to identify areas for improvement
Technical Architect	<ul style="list-style-type: none"> ● Understand business requirements and translate these into technical solutions based on the chosen platform. ● Design and create the underlying data structure and data flows to support the application build. ● Integration and end to end system testing and performance tuning of application & documenting the same ● Source Control ● Deployment ● Code Review
Software Engineer/Developer	<ul style="list-style-type: none"> ● Work on application development lifecycle activities that include: Analysis, Design, Coding, Unit Testing & Implementation ● Execute all phases of software application projects including resolving issues and helping to ensure successful deployment ● Add value in all stages of project work (definition, development, deployment) ● Tackle inconsistencies in data quality and create processes to overcome system deficiencies
UI/UX Expert	<ul style="list-style-type: none"> ● Understand the usability requirements, branding and marketing aspects ● Define UX as per design guideline & wireframing ● Responsible for UI designing

Quality Analyst

- Create and Review Functional test scripts
- Create and Review Functional test data and unit test results.
- Prepare the test Plan
- Prepare the Integration test Scripts
- Execute integration tests
- Execute smoke tests & regression tests
- Execute operational acceptance test

6.4 Assembla

We will use Assembla as the project management tool. Assembla is centred around the Agile delivery model. It offers the following features :

- **Project wiki** - Document instructions, ideas, specifications, minutes of meetings and any other information that needs to be easily referenced by your team.

STANDARDIZED WIKI NODES

Sprints

Version 17, last updated by shreyas.nagaraj at 2019-04-25

Here we are showing the Sprints. Please click on the sprint to view the details of tickets for re

- Sprint 1 - February 22, 2019
- Sprint 2 (March 15 2019)
- Sprint 3 (April 05 2019)
- Sprint 4 (April 26 2019)
- Sprint 5 (May 20 2019)
- Sprint 6 (June 10 2019)
- Sprint 7 (July 2 2019)
- Internal System Test (July 17 2019)
- System Testing (August 20 2019)
- UAT (September 23 2019)
- Go live Activities (October 8 2019)

Here we are providing the overall timeline for the Workflow Management Project.

Please Note: Any delay in client dependent task may cause the timelines to be shifted.

- Project milestone management - Define your sprints and the timelines for the sprints
- Ticketing system - Create tickets to manage your development tasks and bugs/issues. Organize tickets under milestones and track their status.

Email to Tickets

Product Managers and Testers can log bugs via Email

Users can create tickets by sending emails to this address: skgf-wms@tickets.assembla.com

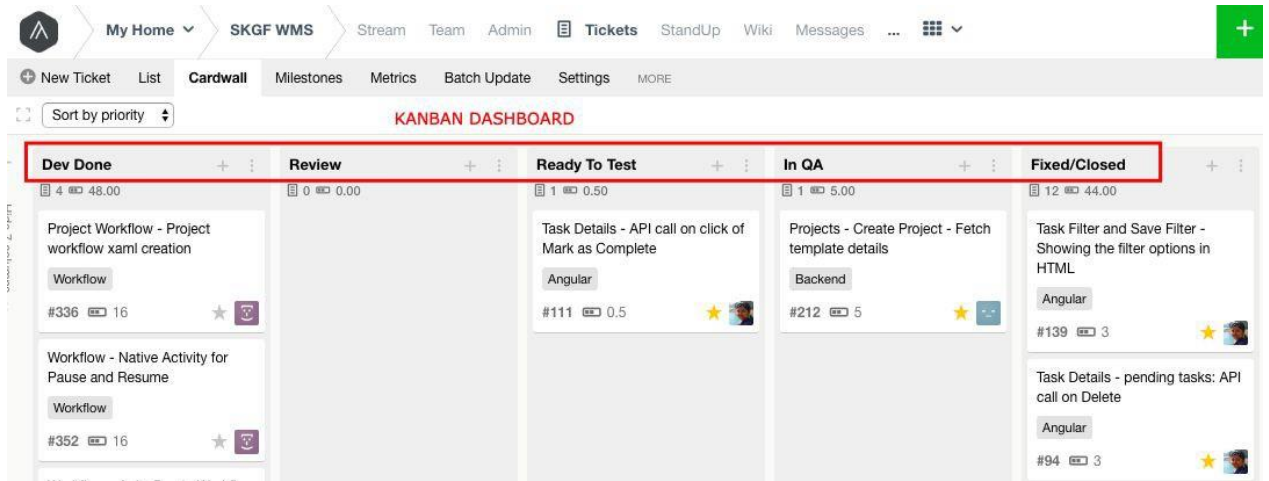
Read more about email templates on [Email to Ticket/Issue gateway wiki](#)

Allow email from:

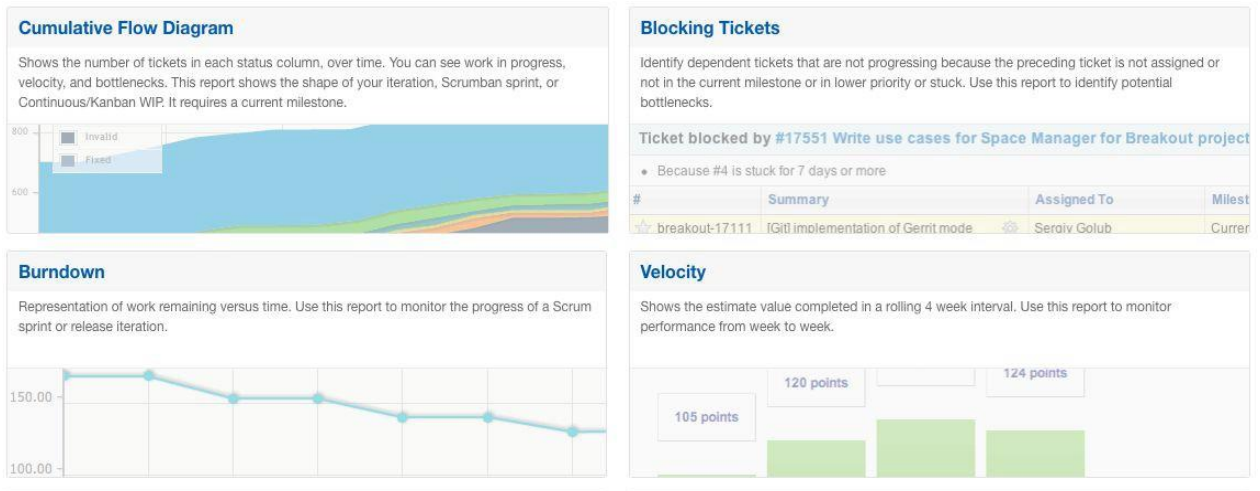
Members

Always accept emails from followers

- Cardwall - Visual dashboard to monitor sprint progress



- Standup reports - Follow the scrum standup model and document the standup discussions on a daily basis.
- Project metrics - Provides insights into project metrics such as burndown, velocity & cycle time.



- Messaging - Centralize all your project discussions/conversations at one place. Provides integration with email.

6.5 Deliverables

- Provided in a separate, confidential, document to the W3C.

7. Commercials

- Provided in a separate, confidential, document to the W3C.

8. Annexure

8.1 About Us

Helix Opportunity LLC is an inclusive design, and user experience research, consulting firm, with an emphasis on users with disabilities. Helix Opportunity's launch, and growth stage support, has been funded by the State of California's Department of Rehabilitation, as part of its vocational rehabilitation program for Californians with disabilities. We are headquartered in San Francisco, California. Our proprietary methodology incorporates the engineering fields of Six Sigma, Lean Transformation, universal design, and accessibility, with the scientific fields of neuroplasticity and social psychology. Our unique expertise in accessible and neuropsychological, design delivers cutting edge innovations that provide unique, and meaningful experiences to users of all different backgrounds, cultures, perspectives, and functional abilities can share in together. We strive to eliminate the unintentional stigmatization of individuals by their differences.

We are particularly well versed in working with large, complex Fortune 200 organizations, and government agencies. Our notable clients include:

Pacific Gas & Electric (one of the largest combined natural gas and electric energy companies in the United States, which has a market capitalization of \$3.242 billion as of January 16, 2019).

McDonalds (Ranked 107 on the Fortune 500, with more than \$27 billion in annual revenue. It is the world's largest restaurant chain by revenue, serving over 69 million customers daily in over 100 countries across 37,855 outlets as of 2018).

VMWare (a cloud computing and virtualization software and services provider ranked 40 on the Fortune 500 with annual revenue of \$60 billion. It was one of the first commercially successful companies to virtualize the x86 architecture).

Helix Opportunity was founded by David Fazio, whom is a survivor of a traumatic brain injury. All of the company's methodologies, products, and services, are derived from his personal, and professional experiences in lean transformation, six sigma, quality assurance, federal disability discrimination litigation (as a union representative), neuroplasticity (in the validation of brain training video games), and as a person with cognitive, visual and physical disabilities. David is also an Invited Expert to the W3C's Web Accessibility Initiative Accessibility Guidelines Working Group, Accessible Platform Architectures Working Group, and Cognitive Accessibility Task Force. As such, Helix Opportunity has first-hand, working, knowledge of how the W3C's website, and all of its features, work and integrate with one another.

TechJini Inc. is one of the leading application development companies operating out of New Jersey and India. App development has never been as big as it is today. Mobile application development is in huge demand and to fulfill this demand, we have qualified and experienced app developers who build applications as per your requirement. We work on diverse application development projects across iOS, Android and Windows Phone. We have catered unique solutions for rapid application development to clients from across the world. We have specialized application developers who work closely with our customers on building

8. Annexure

effective apps as per their demand. We have a wide range of application development solutions brought to you by experienced application developers. We are one of the leading app development companies in New Jersey and offer services at affordable cost as compared to other application development firms. Explore our application development services and give us an opportunity to be a part of your success story.

Datamatics Global Services Limited, TechJini's parent company, Publicly listed (NSE: DATAMATICS) is a 40 year old organization with over 10,000+ employees worldwide and has the experience of working with large, small, and nimble clients, public authorities, and government sector agencies. Datamatics provides comprehensive engineering, mobility and analytics solutions to its clients in the healthcare industry. Our innovative and flexible engagement models give our clients the flexibility to scale up or scale down depending on their requirement. This has helped clients with cost management, improved service quality and reduced time-to-market. As a strategic partner, we help our clients transform into a truly digital, data-driven enterprise and to innovate, differentiate and grow. Leveraging cutting-edge technology, our solutions radically improve performance and reach of client enterprises; delivering accelerated time-to-market for new products and services, enhanced customer responsiveness, maximized productivity and efficiency in business processes, and lower total cost of ownership. Today, Datamatics is a trusted partner to several Healthcare systems across the globe & Fortune 500 Companies for managing their end-to-end Application Life Cycle and Business Critical Processes.

8.2 Testimonials

Co-founder, Sapphire Automation, San Francisco

- "The people were knowledgeable and they worked extra hours to meet our deadlines and deliver our project on time."

IT Director, Benefits Administration Firm, New York

- "At every point, they had good recommendations about how to make the admin portal easy for the user. I really liked that."

EDS

- "We are very pleased with the quality of service the Datamatics team continually provides. Datamatics has consistently made extra efforts to assist us with the sometimes difficult requirements and helping us to complete our projects on time"

Barbara Tharp, Claim Manager - MassHealth Customer Service

- "I have dealt with Datamatics since 2005, during which time they have provided HP with excellent service and support in the areas of data entry and data file transmissions. Their work has been a major factor in our successful support of our client. They always deliver what we ask of them, responding to all of our requests immediately. Their quality is exceptional and each member of the team is versed in the complexities of our account. Their cooperation, prompt action and responsiveness does not go unnoticed. Our client is extremely pleased with the high level of service which exceeds their requirements on a consistent basis."

8.3 Resources referred

<https://medium.com/swlh/why-wordpress-is-the-best-platform-to-build-your-business-or-startup-website-on-df3fe932fad7>

<https://www.pncdigital.com/9-reasons-choose-wordpress-website-cms/>