FlowFactor

Case Study

Workplace Ergonomics for the AI Age:

Designing the Flow Factor Ecosystem

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Human-Centered Innovation

Through my work in web accessibility and inclusive digital design, I've seen firsthand how technology can either enable or exclude — and how often cognitive needs are overlooked. As automation and AI rapidly reshape the workplace, I recognized the need to integrate these technologies in a way that prioritizes Human Factors and supports how people actually think, work, and interact.

Flow Factor emerged from this forward-thinking perspective: a suite of tools designed to align with the realities of modern work while making cognitive wellness, accessibility, and inclusion part of the foundation — not an afterthought

Project Overview

Flow Factor Ecosystem is a suite of AI-powered tools designed to support how we think, work, and feel in an increasingly digital and automated workplace. The tools in the suite focus on three core pillars of well-being: mental workflow support, physical comfort, and digital accessibility.

As the modern work environment evolves — with AI tools becoming more deeply embedded in daily workflows — the cognitive demands placed on workers are increasing.

At the same time, many traditional productivity tools overlook the need for inclusive, human-centered support that adapts to how people actually process information, manage attention, and maintain well-being across diverse roles and work settings.

Flow Factor addresses this gap by providing a flexible set of tools that help users manage focus, reduce cognitive friction, support physical wellness, and build more accessible digital environments. Each tool in the suite is designed to stand alone or integrate with others, forming a modular ecosystem that empowers individuals and organizations to create healthier, more inclusive workspaces.

AI as Workplace Accommodation

Cognitive challenges can be hidden disabilities—AI features like Co-Pilot, task chunking, and automated calendar management are essential accommodations.

The Suite demonstrates how AI can assist in maintaining focus, supporting mental health, enabling physical well-being, and assuring digital inclusion.

The Problem

As AI continues to transform how we work, modern workplaces are experiencing a rise in cognitive demands and a new way of thinking. Constant context-switching, fragmented workflows, and an overload of information have become the norm.

At the same time, efforts to improve workplace well-being are frequently siloed. Physical ergonomics, digital accessibility, and cognitive support are often treated separately, but they are all interwoven pillars of Human Factors that effect employee wellness.

Traditional productivity tools weren't designed for this level of complexity. They rarely consider the cognitive realities of today's workers, especially those navigating neurodiversity, chronic stress, or the shifting expectations of remote and hybrid work. I saw a need for a more integrated, human-centered approach; one that brings accessibility, well-being, and intelligent support into the same conversation.

Project Management & Product Development Approach

While Flow Factor began as a personal project, it evolved into a structured product development initiative

Road Mapping

Defined phased releases for each tool in the suite (FocusFlow, Mindshift CBT, FlexFlow, Aligna, Axia, Flow Factor Co-Pilot)

Backlog Management

Maintained prioritized lists of features and technical tasks.

Iterative Development

Adopted an agile approach—building MVPs first, testing internally, and planning for user feedback loops.

Cross-Component

Designed the suite for interoperability while allowing each tool to function standalone.

UX Approach

While I was the sole designer and developer on Flow Factor, I followed an iterative, user-centered design process shaped by personal experience and evolving insights into workplace accessibility and cognitive ergonomics.

01

Personalized and Experience-Led Design

Initial features were shaped by firsthand experience navigating cognitive challenges in modern work environments. I Prioritized solving real-world pain points related to focus, overwhelm, and task management.

02

Inclusive by Design

Human factors and accessibility best practices were integrated from the very beginning of the design process. The interfaces were intentionally crafted to support a wide range of cognitive styles and user needs

03

Low Friction, High Clarity UI

Every interface decision prioritized simplicity, clarity, and the reduction of cognitive load. The user experience emphasizes intuitive navigation, clean layouts, and minimal visual distractions to help users maintain focus and stay engaged without feeling overwhelmed.

04

Scalable, User-Centered Framework

While the initial designs were shaped through personal testing and real-world use, future iterations are planned to incorporate more formal UX methods. Including user personas, journey mapping, and structured usability testing.

05

Designed for Neurodiverse and General Workforces

The Flow Factor Suite is built to support both neurodiverse professionals and the general knowledge workforce. By grounding the design in inclusive principles and tools that offer adaptable support for diverse working styles, cognitive needs, and evolving professional environments.

06

Human-Centered Use of AI

AI features in the Flow Factor Suite were designed not to replace the user, but to actively support their thinking process. Each AI element is meant to reduce mental effort, guide focus, and empower users to work more effectively on their own terms.

Design & Development Process

The Flow Factor Ecosystem was developed using a modern, scalable, cloud-based stack designed for rapid prototyping, accessibility-first design, and future extensibility. Each tool in the suite leverages this stack in slightly different ways while maintaining consistent architecture and user experience.

Supabase

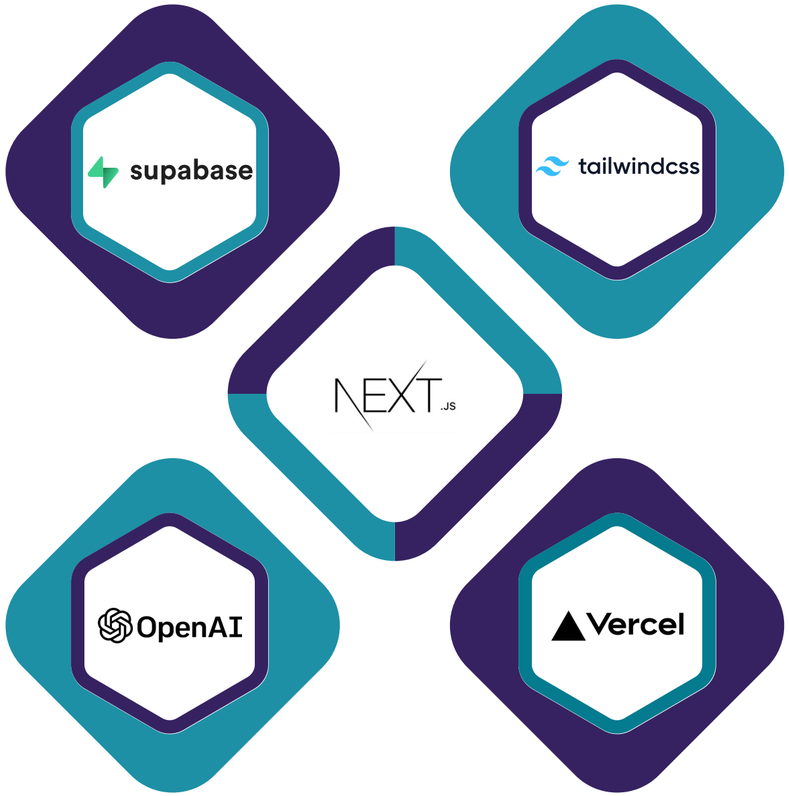
Stores and manages data behind the scenes. While not all tools require data storage yet, Supabase is ready to handle user accounts, saved progress, and personalization features in future versions.

Next.js

Provides the foundation for building each app in the Flow Factor Suite, helping ensure fast, modern, and scalable tools. It helps each tool load quickly and work well across devices.

OpenAI

Powers the intelligent AI features in the suite — such as the Co-Pilot assistant, smart task chunking, and accessibility insights. This allows the tools to provide adaptive support and guidance to users.



Tailwindcss

Helps design a clean and clear visual interface that reduces distractions and supports focus — . Tailwind allows for fast updates and ensures a consistent look and feel across all tools.

Axe-Core

Helps the Axia tool automatically check websites and PDFs for accessibility issues. This ensures that digital experiences are inclusive and meet legal and usability standards.

Vercel

Automatically hosts and delivers each Flow Factor tool online. It ensures that updates and new features can be deployed instantly, so the suite is always improving without downtime.

The Flow Factor Suite

The Flow Factor Suite is designed as a unified ecosystem that supports cognitive wellness, physical ergonomics, and digital accessibility in modern, AI-integrated work environments. Each tool addresses a different aspect of workplace well-being and performance:

FocusFlow

A cognitive ergonomics dashboard that helps users manage focus, break complex tasks into manageable steps, and maintain sustainable work rhythms through guided timers and AI-powered support.

Mindshift CBT

Cognitive-behavioral tools that promote stress management, mental wellness, and adaptive thinking — supporting emotional resilience in high-demand work settings.

FlexFlow

Guided movement and posture routines designed to counteract sedentary work patterns, support physical comfort, and enhance overall workplace well-being.

Aligna

AI-driven analysis of individual workspace setups, providing personalized recommendations to optimize physical comfort, ergonomics, and productivity.

Axia

An AI-powered suite for analyzing web and PDF content for accessibility compliance, helping ensure digital experiences are inclusive and meet evolving standards.

Flow Factor Co-Pilot

A personalized AI assistant that helps manage cognitive load, initiate and sustain focus, and adapt work strategies in real time.

The Flow Factor Suite is built to function as more than the sum of its parts — providing an integrated foundation for a healthier, more inclusive, and more productive digital workplace.

Results & Early Impact

I’ve built initial MVPs for each tool in the Flow Factor Suite and am continuing to refine them.

Early feedback on the designs has been positive, users have commented that the UI is clean, clear, and easy to navigate. The overall concept has also been well-received, with strong interest in the potential of FocusFactor being significant to Employee Wellness programs, using AI to support workplace wellness and accessibility.

The current architecture is set up to track key outcomes over time, including tool usage, productivity improvements, mental wellness indicators, and accessibility compliance metrics. As I move forward, gathering user feedback and impact data will be a top priority to guide future iterations.