DiverseLink

A Browser Extension Built for Productivity and Accessibility

INFO 609 - Group 4: Morgan Brennan, Amy Hayton, Max Lupoli, Sarah Nichols

INTRODUCTION

Neurodivergent individuals face unique challenges when accessing and navigating online content due to insufficient customization options in web browsers.

Through in-depth research and user-centric design, we've created ***DiverseLink***, a browser extension offering customizable features and settings to tailor **layouts, font size and styles, color schemes, noise reduction, distraction minimization, and more** to their needs.

METHODS OVERVIEW

SURVEY

Conducted a mixed survey of 16 multiple-choice and open-ended questions to gather insight into existing experiences when using web browsers as a neurodivergent individual

PERSONA

Developed a user persona based on the results of our user survey to gain a better understanding of our users' needs while completing tasks online

JOURNEY MAP

Created a journey map to visualize our users' experience across varying touchpoints during their time online to identify potential points of friction or delight

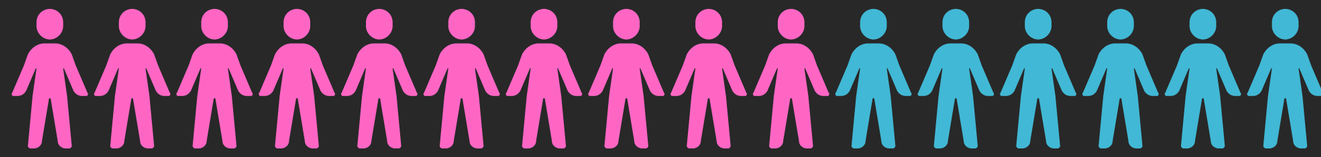
CONCEPT

Designed a conceptual model of our browser extension to address the most integral needs of our neurodivergent users found during earlier research

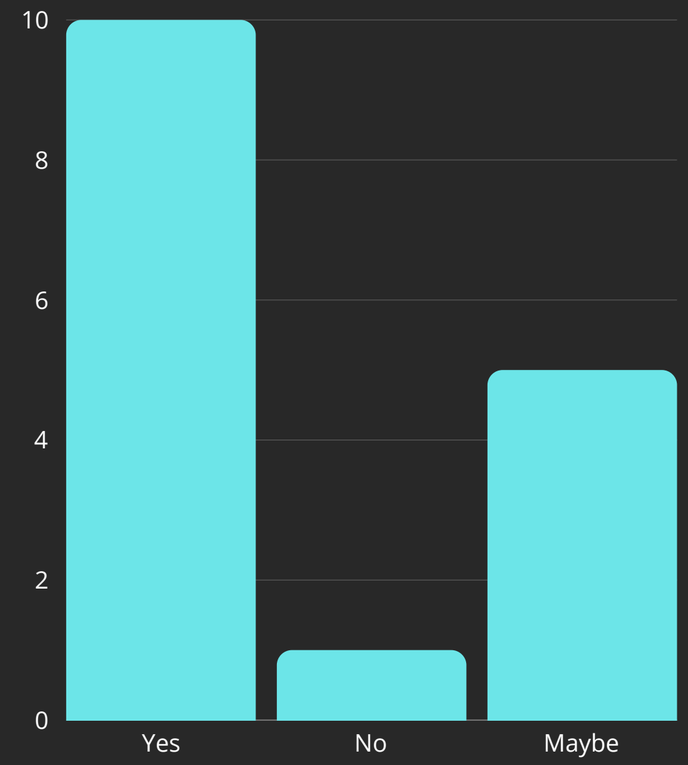
PROTOTYPE

Built low-fidelity and high-fidelity prototypes to demonstrate the browser extension, identify areas of improvement, and ensure the final design aligned with the diverse needs of neurodivergent individuals

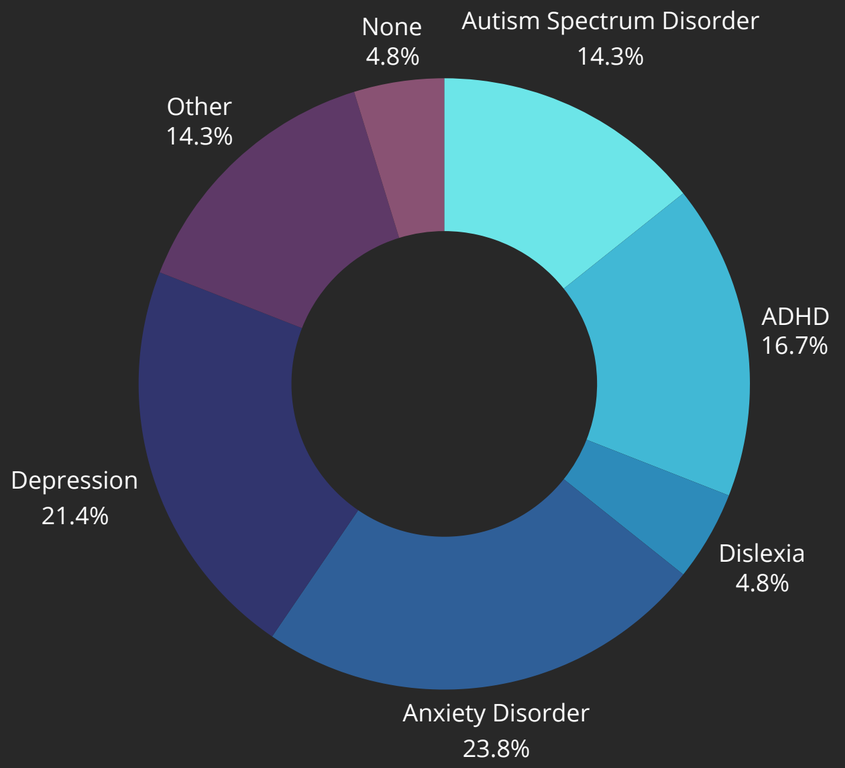
KEY SURVEY RESULTS



Participants (16)



Interested in Browser Extension



Neurodivergent Disorders (7)

PERSONA

Name

Emily Rodriguez

Job Title

Graphic Designer

Age

36

Highest Level of Education

Bachelor's degree

Social Networks

Preferred Method of Communication

- Email
- Text Messaging
- Social Media

About

Emily is a 36-year-old graphic designer whose creative journey is fueled by the interplay of dyslexia and ADHD. Diagnosed with these neurodivergent traits, Emily's design process is a fusion of imagination and adaptive problem-solving. Dyslexia may introduce unique challenges in reading and spelling, but Emily compensates with a keen eye for visual detail, turning each project into a work of art. With the power of hyperfocus, Emily navigates tight deadlines with creativity, transforming ideas into visually stunning realities.

Challenges

Emily tends to hyperfocus which can help produce high-quality work within tight deadlines, but she also tends to face burnout and overwhelmed feelings.

Emily also faces challenges with reading and writing due to her dyslexia and ADHD. She requires extra effort in tasks that involve reading and writing and uses assistive technologies for these processes.

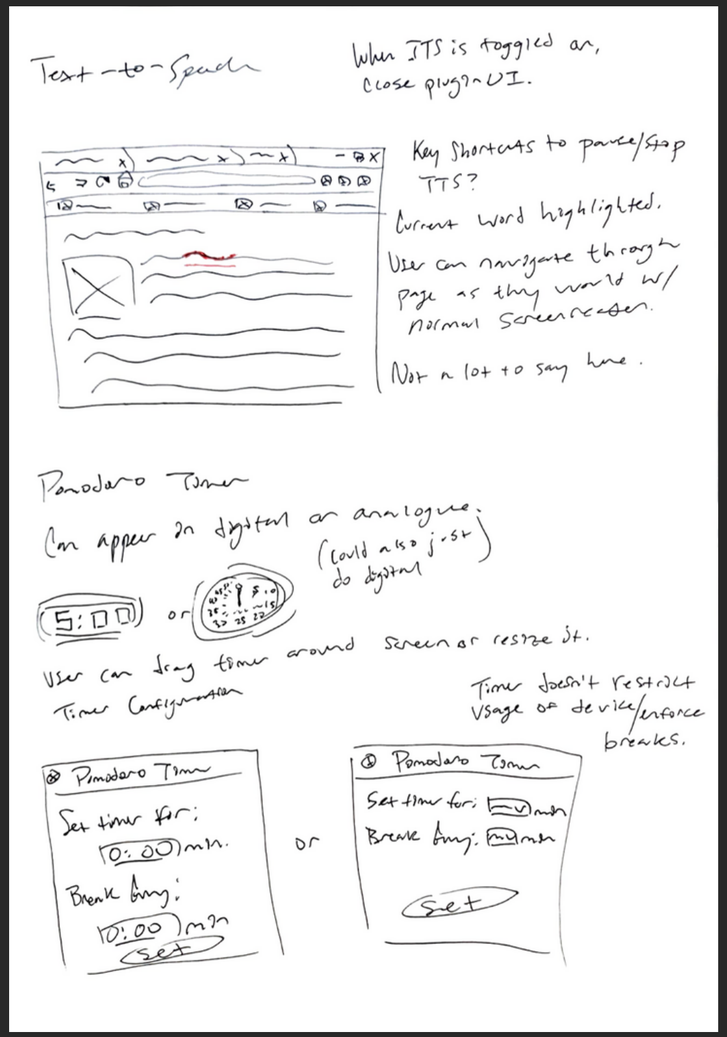
Ideal Work Environment

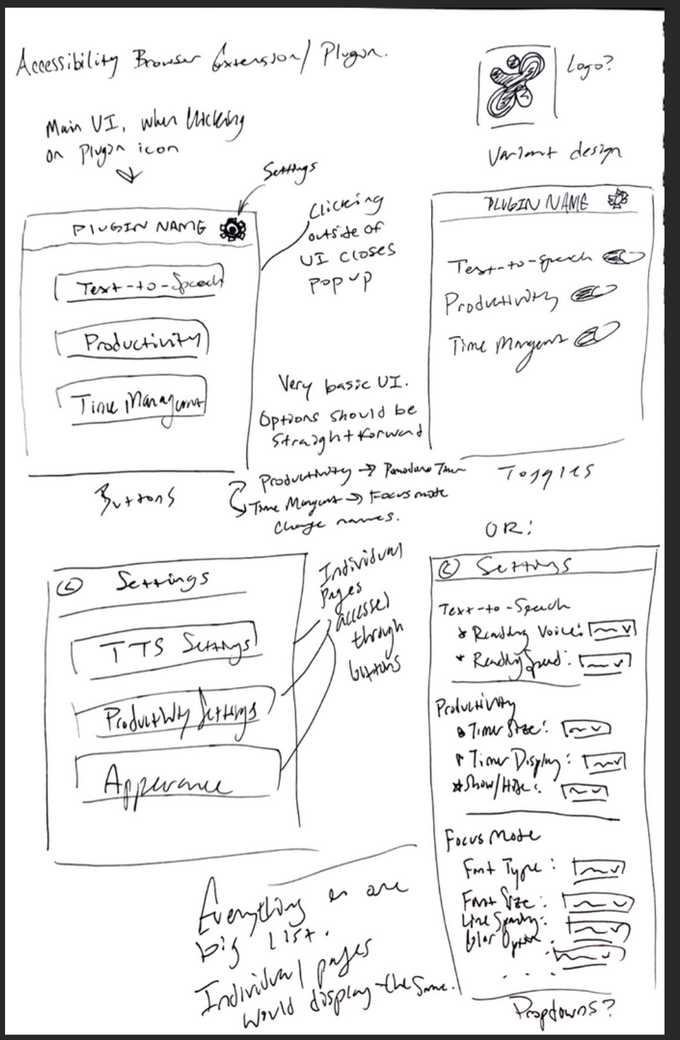
Dimly lit and organized spaces in an area with minimal distractions are ideal. An at home work environment or small office space is preferred. Supportive colleagues and a culture that values diverse perspectives is a must.

JOURNEY MAP

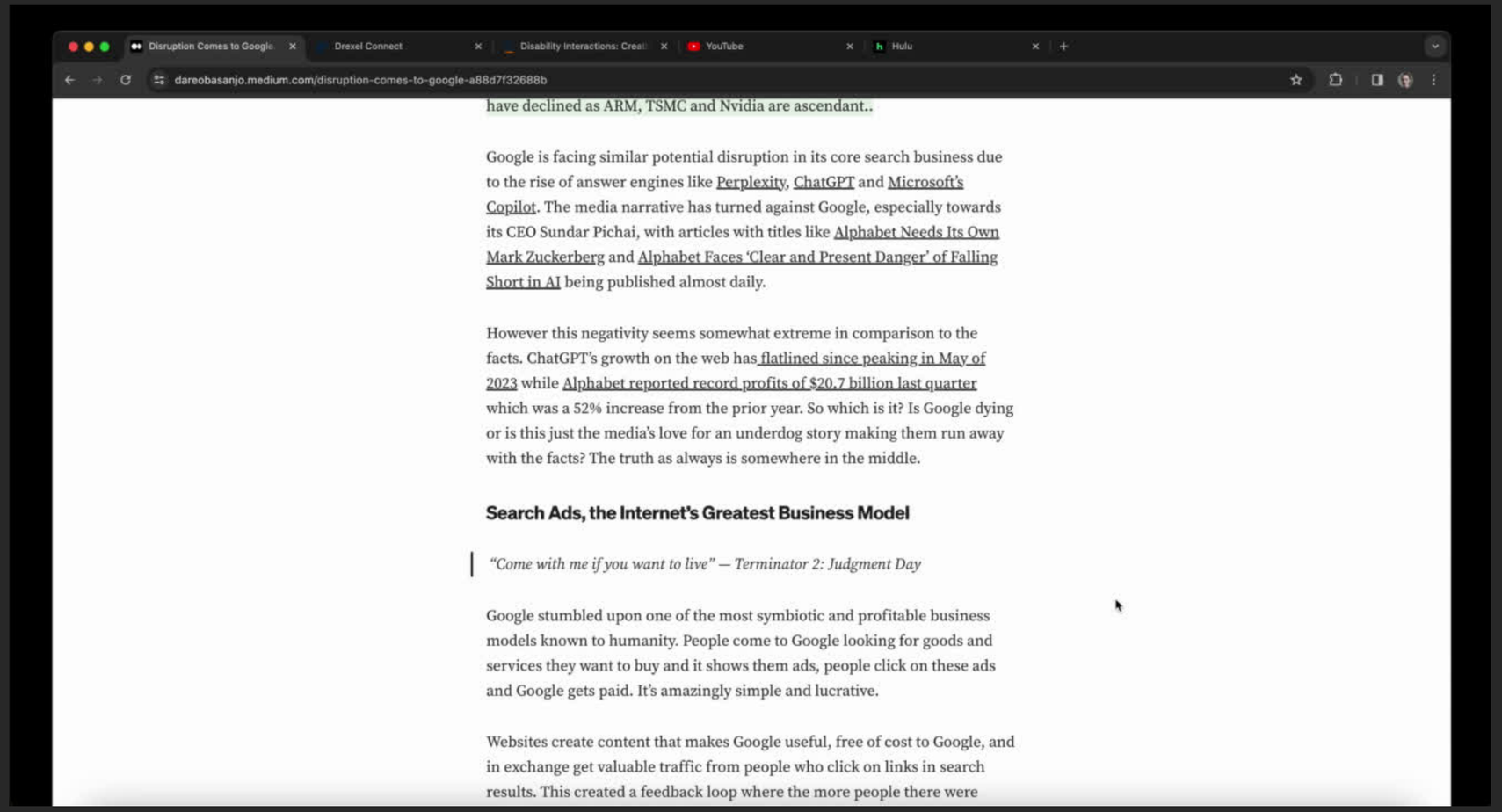
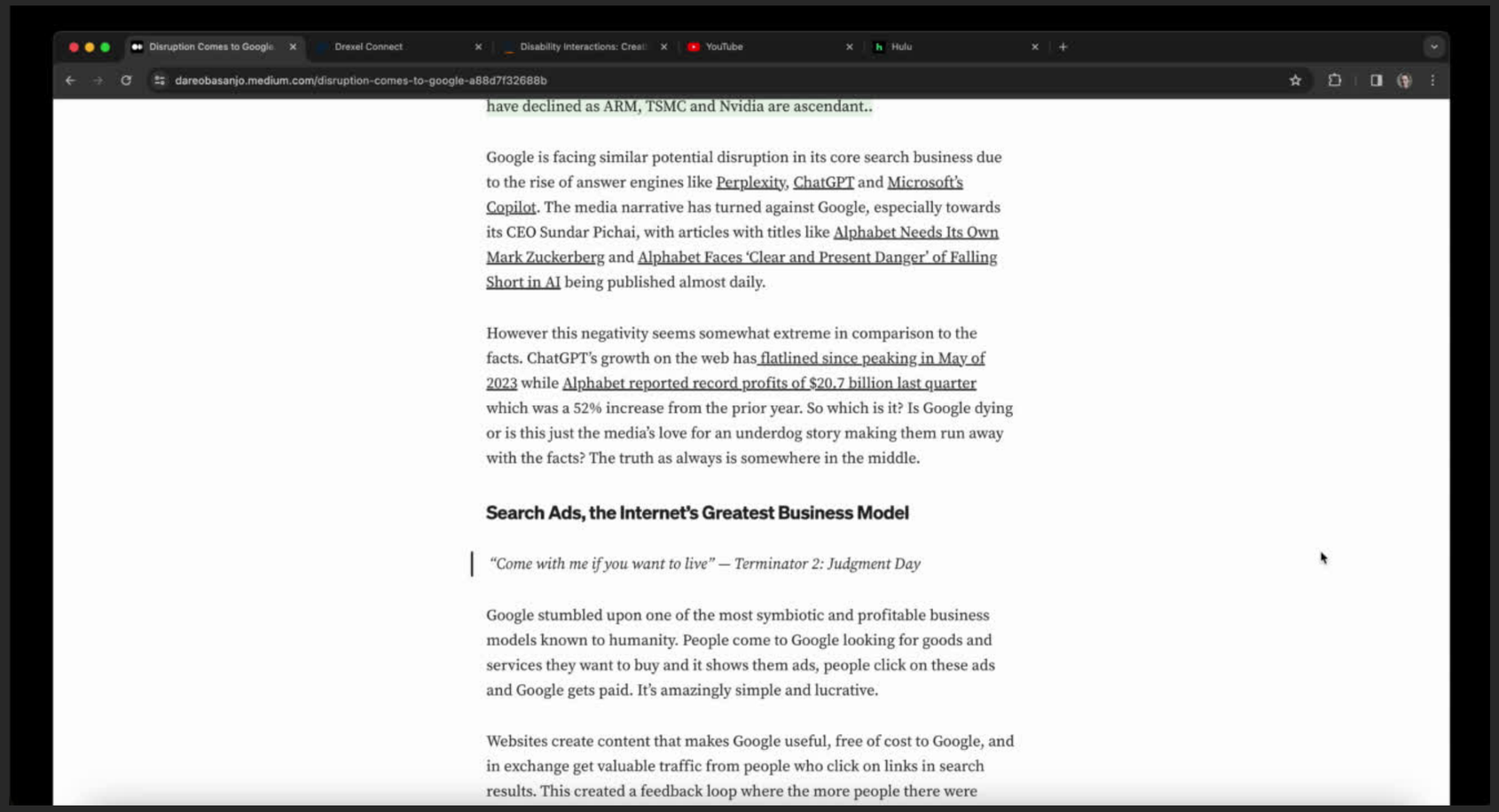
	Awareness	Consideration	Decision	Retention
Goals	To become aware of browser extensions that cater to neurodivergent user needs	Explores different browser extensions and understands each of the features	Choose the most suitable extension based on personal preferences	Successfully integrate the extension into their daily online activities
Feelings	Curious, Hopeful, Frustrated with current online experiences	Overwhelmed, Cautious, Optimistic	Anxious, Hopeful, Relieved	Satisfied, Engaged
Challenges	Lack of awareness of available solutions	Evaluating the effectiveness of the extensions, concerns about potential disruptions, and about privacy concerns	Making a decision among many options, fear of investing in something that may not work	Adopting new routines and habits, adjusting extension to their needs
Motivation	Seeking a more comfortable and accommodating online experience	Finding a solution that aligns with their unique needs; perhaps something customizable	Personal recommendations from neurodivergent communities, clear & accessible information on extension benefits	Noticing positive changes in their online experiences

CONCEPT


Text-to-Speech
When TTS is toggled on, close plugin UI.
Key Shortcuts to pause/stop TTS?
Current word highlighted.
User can navigate through page as they would w/ normal screenreader.
Not a lot to say here.
Pomodoro Timer
Can appear in digital or analogue. (could also just do digital)
5:00
or
User can drag timer around screen or resize it.
Timer Configuration
Timer doesn't restrict usage of device/enforce breaks.
Pomodoro Timer
Set timer for:
0:00 min.
Break timer:
10:00 min
Set
or
Pomodoro Timer
Set timer for: min
Break timer: min
Set


Accessibility Browser Extension/ Plugin
Logo?
Variant design
Main UI, when clicking on Plugin icon
Settings
PLUGIN NAME
Text-to-Speech
Productivity
Time Management
Clicking outside of UI closes pop up
Very basic UI.
Options should be straightforward
Buttons
Productivity → Pomodoro Timer
Time Mangmt → Focus mode
change names.
PLUGIN NAME
Text-to-Speech
Productivity
Time Mangmt
Toggles
OR:
Settings
TTS Settings
Productivity Settings
Appearance
Individual Pages accessed through buttons
Settings
Text-to-Speech
Reading Voice:
Reading Speed:
Productivity
Timer Size:
Timer Display:
Show/Hide:
Focus Mode
Font Type:
Font Size:
Line Spacing:
Blur Opacity:
Everything on one big list.
Individual pages would display the same.
Dropdowns?

PROTOTYPE (LOW-FI)



PROTOTYPE (HIGH-FI)