

Inclusive Design for a Digital World

**Designing with Accessibility
in Mind**

Regine M. Gilbert
Foreword by Ron Rateau

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Inclusive Design for a Digital World: Designing with Accessibility in Mind

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I dedicate this book to my daddy Allen Gilbert, Jr. - he told me I could do whatever I put my mind to and he was right.

Thank you to all of my students, who have taught me more than I could have ever taught you.

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Table of Contents

About the Author	xiii
About the Technical Reviewer	xv
Acknowledgments	xvii
Foreword By Ron Rateau	xix
Introduction	xxiii
Chapter 1: Designing with Accessibility in Mind.....	1
Changing Attitudes to Disabled People	3
Medical/Social Model of Disability	4
We Can All Create More Inclusive Experiences	9
True Story	11
NFL Image Color Rush Uniforms.....	12
Red–Green Color Blindness	14
Blue–Yellow Color Blindness	15
Complete Color Blindness	15
Where to Begin?.....	19
Conclusion	20
Chapter 2: Accessibility, Content, HTML, JavaScript, CSS, and the Land of Accessible Rich Internet Applications	21
Governing on the Web	22
Web Accessibility	24

TABLE OF CONTENTS

Web Content.....	26
Information Architecture Helps Build Better Experiences	27
What Does the Code Do?	30
The Benefits of Knowing Basic HTML and CSS	30
Understanding Code and How to Code Is Understanding Pixels.....	31
Assistive Technologies	32
HTML Best Practices	33
Use Container Elements for Layout Only	34
Use Other HTML Elements the Way They're Intended.....	34
Headings.....	35
Examples of Accessibility Do's and Don'ts for HTML	35
JavaScript	40
Conclusion	42
Chapter 3: If It's Annoying, It's Probably not Accessible	43
The Annoyances and Solutions	45
A Page Taking Too Long to Load	46
Poor Content Layout	46
Pop-ups	48
Too Much Text.....	49
Uncertainty Related to Buttons and Links	50
Autoplay.....	51
What to Do Next	58
Closing Thoughts.....	59
Chapter 4: Compliance and Accessibility	61
A Step in the Right Direction.....	61
United States	62
Other US Digital Accessibility Legislation	62

Canada	62
Europe	63
Asia Pacific	63
International Standards	63
Further Reading	64
Web Content Accessibility Timeline	64
POUR	65
Perceivable: Providing Text Alternatives	66
Operable: Components and Navigation	74
Understandable: Error Identification	77
Robust	78
ADA’s Impact on Web Accessibility	79
Target 2008	80
Harvard and MIT 2015	80
Winn Dixie 2017	81
Beyoncé—Parkwood Entertainment 2019	81
Conclusion	82
Chapter 5: Building a Vision for the Future: Design Strategies for Accessibility	83
User Experience Starts the Moment a Project Begins	84
AirBnb and News Deeply Case Study	86
Three Guiding Principles	87
Balance Your Bias	87
Consider the Opposite	88
Embrace a Growth Mindset	89
Principles for Inclusivity	90

TABLE OF CONTENTS

Design Tips for More Inclusive Designs91

Designing Accessible Content.....95

 Accessible Writing96

Conclusion98

Chapter 6: Inclusive Design Research99

 Recruiting People with Disabilities 101

 Focus the Recruiting Strategy 101

 Exclusion..... 102

 20 UX Research Methods in Brief..... 104

 Generative Research vs. Evaluative Research 107

 How We Made the Digital Services Georgia Platform More
 Accessible Case Study 108

 Before and After 109

 Accessibility for All 113

 Conclusion 119

Chapter 7: Assistive Technologies121

 Who, What, Where, When, Why, and How..... 122

 What Is Assistive Technology? 122

 Adaptive Technology vs. Assistive Technology 123

 Screen Readers..... 125

 Web Browsers..... 132

 Keyboards 133

 Using a Keyboard to Navigate Within Web Pages 133

 Searching for Text When You Start to Type 134

 Zoom, Fonts, and Colors..... 135

 Mobile 136

 Voice Assistants..... 137

The Future of Assistive Technology	143
Conclusion	144
Chapter 8: Planning and Implementing Inclusive Designs	145
Creating a Culture of Inclusivity/Accessibility	146
Avoiding Discrimination and Legal Complaints	148
Reaching a Wider Audience	148
Building Positive PR.....	149
Improving SEO	150
Increasing Usability	150
Writing Higher-Quality Code	151
Accessibility Tidbits	151
Incorporating Accessibility into Design Systems	153
Implementing Accessibility	154
Conclusion	155
Chapter 9: Usability Testing.....	157
Knowing Your Product Is Good Enough	157
The Who.....	159
The What.....	163
The Why	164
Accessibility Originates with UX: A BBC iPlayer Case Study	168
The Challenge.....	172
UX Principles	173
Guidelines.....	180
Conclusion	186

TABLE OF CONTENTS

Chapter 10: Beyond the Web 187

- The Phone 187
- The Internet..... 188
- Text Messaging 189
- Technology Designed for Disabled People Can Help Everyone 189
 - Cruise Control 191
 - Screen Readers 192
- Inventions Out of Necessity 193
 - Access + Ability at the Cooper Hewitt 193
 - Vision Aid, BrainPort Vision Pro, 2017 196
 - Braille Display, HumanWare Brailiant BI 40, 2011 197
- Future of Mixed Realities and Accessibility 198
 - Virtual Reality (VR) 199
 - Augmented Reality (AR)..... 199
 - Mixed Reality (MR)..... 199
- Using Virtual Reality Technologies 200
 - Headsets..... 200
 - Computers 201
- Choose Your Experience..... 202
 - Education and Skill Teaching..... 202
 - New and Formerly “Impossible” Experiences 203
 - Route Planning 203
 - Motor Skills and Muscle Recovery 203
 - Improved Gaming Experiences for Deaf People 204
 - Clearer Vision..... 204
 - XR Access 204
 - Talk 1: XR Access, What Does It Mean? 205
 - Talk 2: XR and Accessibility 206

Talk 3: SeeingVR, A Set of Tools to Make Virtual Reality More Accessible to People with Low Vision	207
Talk 4: Living in an Augmented World.....	207
Talk 5: Movers and Shakers.....	208
Artificial Intelligence and Accessibility	210
You Try It: Bonus Exercise	213
Step 1: Set Up Your Microphone	214
Step 2: Present with Captions	214
Tips for Using Captions.....	215
Troubleshooting Captions	216
Conclusion	217
Appendix A: Accessible Heuristics	219
10 General Rules of thumb for Accessible Design	219
A11Y Style Guide.....	221
Periodic Table of Semantics by Gerard Cohen	232
Assistive Technologies and Adaptive Strategies	232
Reading Disabilities and ICT: Examples of Assistive Technologies and Adaptive Strategies.....	233
Blindness: Examples of Assistive Technologies and Adaptive Strategies	235
Low Vision: Examples of Assistive Technologies and Adaptive Strategies	239
Math and ICT: Examples of Assistive Technologies and Adaptive Strategies	240
Speech and Language: Examples of Assistive Technologies and Adaptive Strategies.....	241
WCAG 2 for Designers	242
International Laws Web Accessibility.....	248
Additional Reading	251
Designing with Accessibility in Mind	251
Development	252

TABLE OF CONTENTS

Web Content Accessibility Guidelines 253

International Resources for Accessibility 253

Legal 253

 Design Principles..... 254

User Research..... 254

Planning and Implementation 255

Usability Testing 255

Media 256

Web Resources 257

Mixed Realities..... 257

Voice User Interface 258

Content and Writing for Accessibility 258

Accessibility Consultants (The Author does not endorse or recommend
products or services. Please do your own research into companies)..... 259

Disability Organizations 260

 Education and Technology 260

Index.....265

About the Author

Regine M. Gilbert is a user experience designer, educator, and international public speaker with over 10 years of experience working in the technology arena. Her passion for accessibility stems from growing up with family who were disabled. Since working in technology, she has spearheaded accessibility initiatives within the organizations in which she worked including creation of guidelines and training. She has a strong belief in making the world a more accessible place—one that starts and ends with the user.

Regine is a Visiting Industry Assistant Professor at NYU Tandon School of Engineering, teaching User Experience Design to students in the Integrated Digital Media Program. In addition, she has previously taught the part-time User Experience Design course at General Assembly. Some of the organizations Regine has had the pleasure of working with include Disney, JP Morgan, Four Seasons Hotels and Resorts, Ralph Lauren, Columbia University, and Vitamin Shoppe. She is a Certified Accessibility Professional through the International Association of Accessibility Professionals.

About the Technical Reviewer

Sara Allen, affectionately known as “The Queen of Code,” Sara is the Director of Analytics & Insights at a NYC advertising agency. With over 18 years of programming experience, she takes fundamental communication within her role in technology and data very seriously and is consistently referred to by her colleagues as someone who makes digital accessible.

Always ready to share her experience and point of view, Sara presented “Programmers Are From Mars, Brand Teams Are From Venus” at the 2013 QA Summit: Digital Healthcare Marketing in Chicago and has been a panelist at the 2016 Web Summit in Dublin, Ireland, and the recent event in New York City, IESE Business Trends 2017: Following the Ever-Changing Trends While Keeping Your Target Audience in Clear Sight. She’s a regular guest speaker at NYU in the digital department and she consults with various organizations on making digital accessible and relative.

Recognized as a Healthcare Businesswomen’s Association Rising Star in 2016, she is very passionate about promoting women in technology. Sara has brought ethnic and gender diversity into her department and made sure her reports have her whole-hearted support. She is a tireless volunteer for organizations that work to mentor young women and people of color considering STEM careers These organizations include BuiltByGirls, Black Girls Code, Girls Who Code and NYC Salt.

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Foreword By Ron Rateau

As an expert in the field of accessibility, having worked with end users, product owners, developers, brand managers, stakeholders, and everyone in between from public sector to private sector for nearly 20 years, I have heard the term accessibility used in a variety of ways but rarely are the comments from a place of “enthusiasm” with statements like

- *Accessibility—that’s not our problem.*
- *Wait, what—how much is it going to cost us to make this site accessible?*
- *Lawsuit for an inaccessible image? It’s free to surf the Web.*
- *Making the site accessible will mess up the aesthetics.*

With *Inclusive Design for a Digital World*, Regine has made the idea of accessibility and design a seamless process that can be implemented at the early design phase by addressing design requirements from the start.

My first introduction to Regine was when I attended one of her UX/UI Series in New York City about the impact of stakeholders’ roles on accessible design in their market. She leveraged her experience as a designer and what she had learned from the challenges she faced in her work. Regine brought up key points about background images to color contrasts used on “call to action” buttons. She highlighted that if a designer checked for compliance by reading up on the W3C recommendations, they would get a laundry list of 12 guidelines and 61 success criteria (not to mention 17 added SC in WCAG 2.1). She stated that she recognized that this seemingly complicated list is too robust for a designer to simply follow along for corrections. This prompted two guests, who were UX designers

FOREWORD BY RON RATEAU

in the audience, to have a lively exchange regarding what is considered compliant vs. best practices. She shared her insights on the Web Content Accessibility Guidelines 2.0 (WCAG 2.0) Level AA as a reference point, but explained to the attendees that their roles as designers should be specific to what their industry were trying to achieve.

I understand some of the perceived challenges that designers face when thinking about how to make a web site accessible as well as be in line with WCAG 2.0 ruleset. However, what I empathize with more is the experience of the actual user when trying to navigate a web site that has not been designed with accessibility in mind.

I remember in 2005, I was tasked to train a classroom of blind users on how to navigate a government web site on desktops. We spent 2 days trying to figure out an alternative way to complete an online form because the screen readers were unable to announce labels for each text field. At that time, my role was to simply walk through a web page. That immediately turned into a hands-on, interactive experience. I found myself walking up and down the aisle to each user leaning in so they can whisper to me what labels they were unable to hear due to the sensitive information they were required to type. At the end of this session, the class just wanted a telephone number to call when they got home, so if they had any issues, they could ask a family member to help. This was a problem that unfortunately many people with disabilities were accustomed to. They were not able to have the same quick, easy, and simple interaction with the online forms like a sighted person would.

Fast-forward to 2019 and 15 years later, we are still facing similar issues with user experience. It is why Regine's book is even more relevant and necessary today. With more and more of the average person's life being spent online on various devices, from laptops to mobile phones, her approach to breaking down designers' way of critically thinking about accessibility challenges during the design phase will help to ensure compliance and usability for all.

Not only will Regine's book give seasoned designers what they need to know when it comes to accessibility being implemented in their design but her years in classrooms teaching young talented individuals has proven she is an advocate for people with disabilities.

I don't need easy. I just need possible.

—Bethany Hamilton

Introduction

Have you ever been left out of something? Have you ever wanted to get into a place that didn't allow you in? How did that make you feel?

Life may not be fair, but that doesn't give you any excuse not to be.

—Elizabeth Jackson

Upon attending my first A11yNYC meetup in New York, I met a person who was blind, and as many conversations go, they asked me what I did for a living. I mentioned I was a UX designer and help make web sites more usable. She asked me, “Do the companies and people you work with ever think about people like me?” At the time, I had worked on a few freelance projects and had not heard anyone mention accessibility.

After a long pause, I answered, “No,” and proceeded to say that I will make sure that we do think about it in whatever work I do. She had posed a question to me that forever changed my perspective on the things I work on.

Thinking back on the question first asked, we know what it feels to be left out of something. When we create products and experiences that are not inclusive and accessible, there is the possibility we are leaving folks with the feeling of being left out of experiences.

This book provides a foundation for making more inclusive and accessible experiences through case studies and hands-on exercises.

Who Is This Book for?

This book is meant to be a starting point and reference guide for those who are new to accessibility or have an interest in knowing more about accessibility and how to incorporate more inclusive practice into their day-to-day work.

As a consultant and educator, I have found that a lot of people are not clear on what accessibility is or why it is important. For many, it is a new area. I took a lot of the questions I have been asked over the years and created the outline of the book.

Creating a culture of accessibility inclusion is about making sure everyone who works on, delivers or uses your services or products can access them.

—Julianna Rowsell

How to Use the Book

The book is divided into ten chapters and an appendix with additional resources. We learn by doing, and throughout the book, there are opportunities to try things for yourself so you are able to get a better understanding of accessibility.

Chapter 1, “Designing with Accessibility in Mind,” discusses accessible digital design and models of disability.

Chapter 2, “Best Practice for Web,” discusses information architecture and content strategy and provides a high-level overview of accessible HTML, CSS, JavaScript, and ARIA.

Chapter 3, “If It’s Annoying, It’s Probably Not Accessible,” provides examples of inaccessible products and relation to web content accessibility guidelines.

Chapter 4, “Web Standards,” reviews accessibility guidelines from across the globe as well as providing high-level explanation of the web content accessibility guidelines.

Chapter 5, “Design Principles,” covers a couple of different design strategies and frameworks for creating a more inclusive and accessible experience.

Chapter 6, “Inclusive Design Research,” discusses research methodologies and planning, and recruitment of people with disabilities.

Chapter 7, “Assistive Technologies,” highlights a selected group of assistive technologies and provides a case study of the Microsoft Adaptive Controller.

Chapter 8, “Planning and Implementing Inclusive Designs,” covers creating a culture of accessibility, design systems, and implementation of accessibility.

Chapter 9, “Usability Testing,” includes the “hows” of usability testing, test plan example, and BBC case study.

Chapter 10, “Beyond the Web,” discusses past accessible innovations and the future of accessibility with augmented and virtual realities.

The Appendix contains information on additional resources related to accessibility and inclusive design.

INTRODUCTION

Throughout this book, there are references to real case studies as well as some practical frameworks that can be applied to the creation of digital products. There are many references throughout the book and they are not meant to provide a one-size-fits-all solution, because when it comes to accessibility and inclusive experiences, context needs to be taken into consideration. In all instances when dealing with accessibility, it is best to bring in an accessibility professional, working with people with disabilities by participatory/co-design, or get the training for your team. We all have to start somewhere, and this is a good place to be.

Design is oftentimes the starting point and this is where the book begins, with designing with disability in mind.

Let's get started!