

Equitable access to public information and the role of the graphic designer

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for the degree of Master of Design in Inclusive Design

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Graphic design can be described as a “language of vision”. The primary goal is to communicate ideas and information effectively and efficiently using standard design principles, but there is a need to consider who might be excluded from accessing information when designing in a visual language. Following the social model of disability, inclusive design and accessible design both centre the idea that design needs to support and accommodate each individual user’s needs and preferences. When graphic designers consider accessibility and inclusivity in their work, the result is a better experience for all, including people with disabilities and anyone who relies on accessible delivery of information. However, research suggests a lack of consideration has been given to accessibility in graphic design and many designers don’t have the knowledge or experience to implement accessible design processes into their design solutions.

This research explores how graphic designers learn about, interpret, and implement accessibility standards into practice. The use of participatory research methods resulted in a rich depth of understanding regarding the spectrum of knowledge, attitudes, and mindsets surrounding accessible design. The design outcome is a framework and set of recommendations on how government can support the graphic design industry in integrating accessible design into the graphic design ethos. The recommendations are intended to address the challenges and barriers graphic designers currently face, and to reflect the specific supports the design industry in B.C. needs to meet internationally recognized accessibility standards and to encourage thinking beyond accessibility legislation compliance.

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This research is dedicated to the
graphic design community in B.C.

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Graphic design can be described as a “language of vision” but is this exclusionary in nature?

Graphic design conveys information and ideas in visual form and can be described as a “language of vision” (Lupton, 1988), but is this exclusionary in nature? When graphic designers design in a visual language, who might be excluded? Graphic design theory considers how users access and view information, but there are digital accessibility considerations that need to be included in the design process when creating materials that will be published online. This is to ensure people with disabilities and individuals using assistive technology, such as screen readers, can access the content in a logical and understandable way. As we transition to an increasingly digital world, almost all communication materials end up on the web. Graphic designers must therefore become knowledgeable in applying steps to make their materials accessible and inclusive online.

Studies have shown a lack of consideration has been given to accessibility in print-based graphic design (Cornish, Goodman-Deane, Ruggeri, et al., 2015), and many designers don’t have the knowledge or experience to implement accessible design processes into their design solutions (Forlizzi & Lebbon, 2002; Lee et al., 2020; Zitkus et al., 2013).

This research focuses on the graphic design community in British Columbia (B.C.) and investigates its capacity and ability to effectively develop accessible and inclusive online materials. The investigation is framed around B.C.’s new accessibility legislation with the passing of the *Accessible British Columbia Act* (the Act) which is designed to remove barriers and create accessibility standards throughout the province (Government of British Columbia, 2021).

The legislation will allow government to establish accessibility standards and regulations in a range of areas that will help to remove barriers and ensure people with disabilities can fully participate in their communities (Government of British Columbia, 2021). While the specific standards and regulations have yet to be developed, the framework for the standards has been set. Item 13.2.d of the Act identifies ‘information and communications’ as one component of the accessibility standards (Legislative Assembly of British Columbia, 2021). Information and communications is defined as “human communication such as the way people interact and communicate in the way that works for them, and technical communication such as websites and documents” (Government of British Columbia, 2021).

The standards of the Act will be developed considering several precedents, including existing accessibility legislation of other provinces such as the *Accessibility for Ontarians with Disabilities Act* (2005), or AODA (Government of British Columbia, 2019). The AODA identifies ‘accessible websites and web content’ as one component of the ‘information and communications’ standards and specifies that organizations must ensure their websites and web content conform with the World Wide Web Consortium Web Content Accessibility Guidelines (WCAG) 2.0 Level AA (Government of Ontario, 2022).

Since the government of B.C. has indicated it will be adhering to internationally accepted precedents and accessibility standards (Government of British Columbia, 2019), this research expects that the Act will include the same requirements, such as WCAG 2.0 AA. Based on this presumption, graphic designers will need to ensure their materials are accessible online but there may be limited capacity within the design community in B.C. to meet these anticipated requirements.

Alongside the specific requirements of the Act, there are moral (human rights principles) and ethical responsibility (Canadian and international design codes and guidelines) reasons why graphic designers should be considering accessibility in their work. In order to ensure materials are accessible to all, including individuals with disabilities and anyone who relies on accessible delivery of information, graphic designers need to be knowledgeable in building accessibility into their designs.

The purpose of this research is to understand what specific supports the graphic design industry in B.C. needs to both meet internationally recognized accessibility standards, and to encourage thinking beyond accessibility legislation compliance. The aim is to build awareness, ability, and capacity towards accessible design among graphic designers, and to shift mindsets and motivations towards inclusion, to increase the likelihood that designers will develop materials with accessibility standards in mind, ultimately supporting inclusive and equitable access to public information.

Through the application of an inclusive design framework, a series of in-depth interviews, online questionnaires, and co-design activities were conducted. Participants offered insights on how they learn about, interpret, and implement accessibility standards into their practice which led to a more informed approach to the development of appropriate supports. Through an iterative and inductive approach, the research participants helped to co-create a framework and set of recommendations on how government can support the graphic design industry in integrating accessible design into the graphic design ethos.

This design outcome will be an initial step in preparing and supporting the design industry in B.C. to meet internationally accepted accessibility standards, and is important and much needed because without the awareness, training, and support to consider and implement accessible design, graphic designers can create barriers and exclude people from accessing and using information (Owen, 2016).

Appropriate measures must be taken to ensure people with disabilities can access information on an equal basis with others.

Graphic design conveys information and ideas in visual form

Graphic design can be defined as a communication tool to which the effective display of visual information is intrinsically linked (Frascara, 1988) and has been described as a “language of vision” (Lupton, 1988). Graphic design surrounds people in their daily life and can support or hinder how they experience the world. From graphic health warnings and pill packaging to informational campaigns and hospital signage, graphic design allows for the creation of public-facing visuals that educate, persuade, prevent and safeguard (Schrauwen et al., 2017). At the onset of the global Coronavirus pandemic, the United Nations issued its first-ever open brief to creatives around the world to help develop materials that would create awareness and understanding to stop the spread of the virus (Roberts, 2020). This is one example of how graphic design plays a vital role in providing critical, potentially life-saving information to a wide range of individuals in different visual languages and cultural contexts.

Graphic designers create design solutions that provide individuals with the opportunity to access and use information (Buller & Spevack, 2019). But for communications materials to be effective, they must be both visually clear and accessible so users can access, understand, and interpret the information (Cornish, Goodman-Deane, Ruggeri, et al., 2015).

Accessible (graphic) design

Graphic design theory considers how users are accessing and viewing information. For example, principles of visual hierarchy allows designers to organize and prioritize content in a way that is easy for people to process information. Establishing a visual flow is achieved through basic design principles such as contrast, spacing, typographic usage and position. Legibility is achieved through careful consideration of typeface, typesetting and composure of symbols, letters, and glyphs. Visual hierarchy allow designs to be observed in a prescribed narrative progression, where the viewer’s eye is led to information in order of importance.

There are, however, digital accessibility considerations that need to be included in the design process when creating materials that will be published online to ensure people with disabilities and individuals using assistive technology, such as screen readers, can access the content in a logical and understandable way. Accessible design principles include adding alt text to images, checking colour contrast ratio, correctly structuring headings, ensuring all content is tagged, and including multiple modes of delivery (Association of Registered Graphic Designers, 2019).

Accessible design involves creating materials that are accessible to anyone who needs to access them, and not simply designing for personal immediate needs (Pun, 2016). For example, if someone is colourblind, accessible design solutions enable them to differentiate between elements of the design through high contrast. Similarly, if someone is visually impaired, accessible design solutions help them understand images and graphics through the inclusion of alt text. Additionally, if someone has a cognitive disability, accessible design solutions help them easily understand the material through the use of simple colours and consistent layouts (Pun, 2016). Accessible design is “a mindset that needs to be in place from the very start of any project” (Owen, 2016, para. 3). Designers who do not consider accessibility end up creating materials that exclude people.

As we transition to an increasingly digital world, accessible design is gaining more traction within graphic design practice. However, studies have shown a lack of consideration has been given to accessibility in print-based graphic design (Cornish, Goodman-Deane, Ruggeri, et al., 2015), and many designers don’t have the knowledge or experience to implement accessibility into their design solutions (Forlizzi & Lebbon, 2002; Lee et al., 2020; Zitkus et al., 2013).

There is currently a gap or a missing link between the graphic design process and accessible graphic design that end users rely on to access information, including people with disabilities and those who use assistive technology. Figure 1 identifies the elements that contribute to the graphic design process, including design principles, design theory and design tools (software and technology) and highlights the gap between graphic design and accessible design.

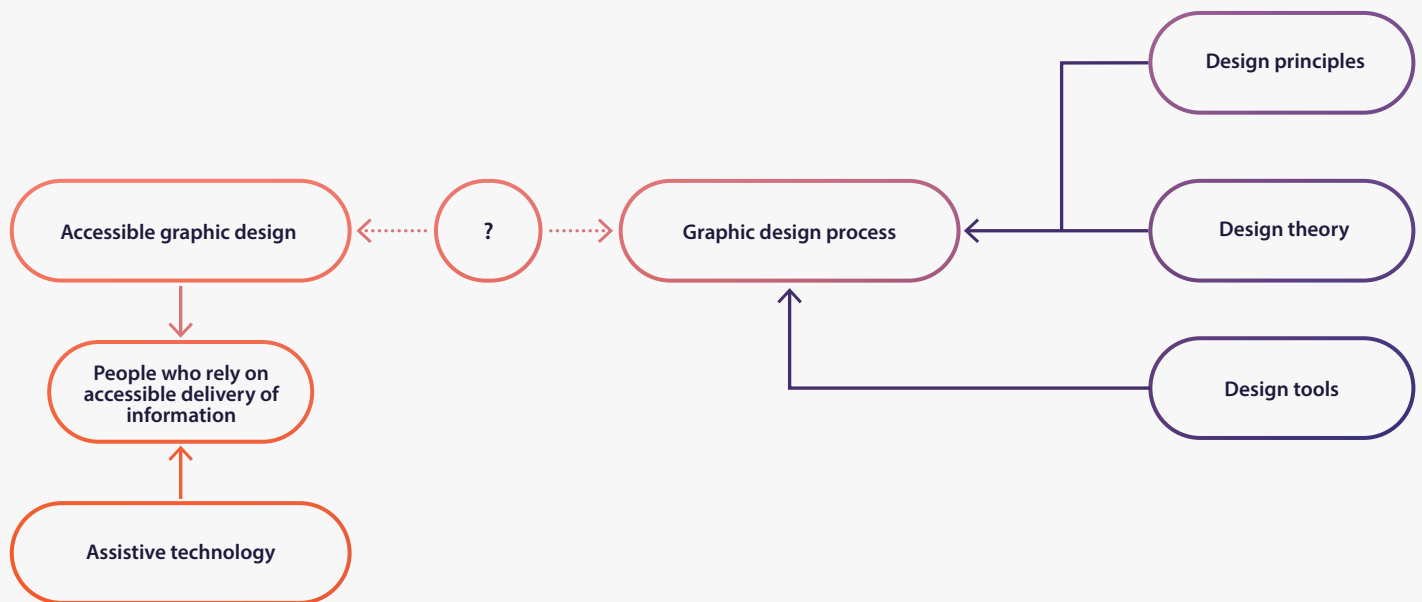


Figure 1. The missing link between the graphic design process and accessible graphic design

The convergence of inclusive design, accessible design, and graphic design

The Inclusive Design Research Centre (n.d.) defines inclusive design as “design that considers the full range of human diversity with respect to ability, language, culture, gender, age and other forms of human difference” (“Philosophy” section). Inclusive design is closely related to accessible design but where accessibility is an outcome, inclusive design is a methodology for creating design solutions that are usable by a wider range of human difference (Chapman, n.d.). Inclusive design is a collaborative process that seeks knowledge, input and insights from individuals who are often excluded from the design processes, or belong to marginalized groups (Cassim, 2015).

Following the social model of disability, inclusive design and accessible design both centre the idea that design needs to support and accommodate each individual user’s needs and preferences. Similarly, the primary goal of graphic design is to communicate ideas and information effectively and efficiently using standard design principles. When designers consider accessibility and inclusivity in their work, the result is a better experience for all (Buller & Spevack, 2019).

How the inclusive design methodology is being adopted within graphic design practice is an under-represented research area (Cardoso et al., 2005; Cornish, Goodman-Deane, & Clarkson, 2015). Inclusive approaches to design, such as human-centered design, have been more widely adopted into the user experience design and web design processes where the focus is on the individual using the digital product.

For many graphic designers, the process of design is viewed as designing ‘for’. Designers are trained to be the ‘expert’ and to leverage their skills, experience, and expertise. There is a misconception among designers that understanding and responding to user needs limits their ability to be creative (Clarkson et al., 2003). This mindset could be a barrier for graphic designers recognizing the need to incorporate inclusive design into their practice and design ‘with’. Furthermore, within the graphic design process, clients often act as the intermediary between the graphic designer and the user, resulting in a lack of adequate user needs information (Cornish, Goodman-Deane, Ruggeri, et al., 2015).

Equitable access to public information

Article 9 of the United Nations Convention on the Rights of Persons with Disabilities (2006) states that appropriate measures must be taken to ensure people with disabilities can access information on an equal basis with others. Equitable access to public information refers to the notion that every individual, regardless of ability, should have the same opportunity as any other individual in being able to access and use information that is in the public realm and meant for public consumption. Equitable access to public information as it relates to graphic design, can be explored through three themes: understanding the importance of access (the moral angle), understanding industry standards, codes and guidelines (the responsibility angle), and understanding accessibility legislation (the legal angle).

Understanding the importance of access (the moral angle)

The United Nations Educational, Scientific and Culture Organization (2015) identifies the universal right to information as essential for the well-being of individuals. Furthermore, the right to information is an important element of the fundamental right to freedom of expression. Article 19 of the Universal Declaration of Human Rights (1948) states that the fundamental right to freedom of expression includes the freedom “to seek, receive and impart information and ideas through any media and regardless of frontiers.”

Section 15 of the Canadian Charter of Rights and Freedoms (1982) identifies that every individual in Canada, regardless of “race, national or ethnic origin, colour, religion, sex, age or mental or physical disability”, is to be treated with the same respect, dignity and consideration. Furthermore, Canada ratified the United Nations Convention on the Rights of Persons with Disabilities in 2010. The Convention protects the rights to equality and non-discrimination of persons with disabilities (United Nations Convention on the Rights of Persons with Disabilities, 2006). Article 21 outlines the freedom of access to information which includes the “freedom to seek, receive and impart information and ideas on an equal basis with others and through all forms of communication of their choice.”

Each subset of Article 21 is particularly relevant to the creation of graphic materials: “a. Providing information intended for the general public to persons with disabilities in accessible formats and technologies appropriate to different kinds of disabilities in a timely manner and without additional cost; b. Accepting and facilitating the use of sign languages, Braille, augmentative and alternative communication, and all other accessible means, modes and formats of communication of their choice by persons with disabilities in official interactions; c. Urging private entities that provide services to the general public, including through the Internet, to provide information and services in accessible and usable formats for persons with disabilities; d. Encouraging the mass media, including providers of information through the Internet, to make their services accessible to persons with disabilities; e. Recognizing and promoting the use of sign languages” (United Nations Convention on the Rights of Persons with Disabilities, 2006).

Ensuring that graphic materials are accessible upholds the right to information. Ensuring that graphic materials are accessible affords people with disabilities equal opportunities to access and use information (Buller & Spevack, 2019) which ultimately supports equitable access to public information.

Understanding industry standards and guidelines (the responsibility angle)

Accessibility guidance for graphic designers is available in the form of industry standards, codes, and guidelines, such as the Society of Graphic Designers of Canada and the Association of Registered Graphic Designers (2019) *GDC Code of Ethics*, the International Council of Design (2020) *Professional Code of Conduct for Designers* and the American Institute of Graphic Arts “AIGA, the professional association for design” (1994) *AIGA Standards of Professional Practice*. The Association of Registered Graphic Designers (RGD) (2019) also developed “AccessAbility 2, A Practical Handbook on Accessible Graphic Design” to support graphic designers with planning graphic design projects to ensure they are as accessible as possible for the intended audience, and to fill a gap in design education and knowledge.

As shown in Table 1, Canadian and international design organizations are placing the responsibility of ensuring accessibility in design on the graphic designer.

Ensuring that graphic materials are accessible upholds Canadian and international design organization codes of conduct and standards of professional practice. However, the same organizations acknowledge there is a need for tools, standards, and training to ensure designers have the skills and understanding required to consider accessibility in their projects (Association of Registered Graphic Designers, 2019).

If accessible design tools, standards, and guidelines exist but graphic designers aren’t considering accessibility in their designs, the design industry needs to investigate and understand the reason for this mismatch. Additionally, if graphic designers aren’t aware of design organizations, they won’t necessarily be able to find this information, and if they aren’t aware of accessibility or inclusive design as concepts, they won’t necessarily know to look for this information.

Association, date, publication	Code/standard	Who is responsible?	Location
<p>Society of Graphic Designers of Canada and the Association of Registered Graphic Designers (2019)</p> <p><i>GDC Code of Ethics</i></p>	<p>The <i>GDC Code of Ethics</i> outlines a set of Rules and Best Practices for members.</p> <p>Rule #4.1.6 states “I will educate myself and ensure that my clients are informed about accessibility standards in my jurisdiction and the role that design can play in giving people of all abilities opportunities to participate fully in their communities and the world at large”.</p> <p>Best Practice #9.2.5 states “I will ensure my students are aware of accessibility standards in my jurisdiction and the role that designers can play in giving people of all abilities opportunities to participate fully in their communities and the world at large.”</p>	Graphic designer and design educators	Canada
<p>International Council of Design (2020)</p> <p><i>Professional Code of Conduct for Designers</i></p>	<p>The International Council of Design <i>Professional Code of Conduct for Designers</i> is an international standard and reference.</p> <p>Responsibility is placed on the designer to ensure designs align with the demands of diverse user groups. Responsibility is also placed on the designer to inform clients about accessibility standards and to advocate the value of design to address issues of equality, inclusivity, and accessibility, among others.</p> <p>The Code defines accessibility in relation to the diverse needs of all individuals:</p> <p>“Humans come in all shapes and sizes. Different genders have different attributes and physiologies. People have different needs and capacities as they grow and age. People have different physical and cognitive limitations, and some have mobility challenges and needs. Certain groups have distinct needs (e.g., new immigrants, people with language barriers) and these needs should be considered in any design that is targeted to groups including them. One design cannot fit all. It is the responsibility of designers to consider how designs are carefully aligned to the demands of the users of each project.” (p. 09)</p>	Graphic designer	International
<p>American Institute of Graphic Arts “AIGA, the professional association for design” (1994)</p> <p><i>AIGA Standards of Professional Practice</i></p>	<p>The <i>AIGA Standards of Professional Practice</i> was created for professional designers to adhere to.</p> <p>Responsibility #6.3 states “A professional designer shall respect the dignity of all audiences and shall value individual differences even as they avoid depicting or stereotyping people or groups of people in a negative or dehumanizing way. A professional designer shall strive to be sensitive to cultural values and beliefs and engages in fair and balanced communication design that fosters and encourages mutual understanding.”</p>	Graphic designer	United States

Table 1. Graphic design association codes and standards relating to accessibility

Understanding accessibility legislation (the legal angle)

Federal accessibility legislation exists in the form of the *Accessible Canada Act* (2019), Canada's first national accessibility law, which aims to achieve a barrier-free Canada by 2040 through identifying, addressing, and preventing barriers. Barriers are defined as anything that "hinders the full and equal participation in society of persons with an impairment, including a physical, mental, intellectual, cognitive, learning, communication or sensory impairment or a functional limitation" (*Accessible Canada Act*, SC 2019, C. 10., 2019). The *Accessibility for Ontarians with Disabilities Act* (2005), or AODA, was the first accessibility legislation in Canada mandating that organizations must follow standards to become more accessible for people with disabilities. The goal is for the province to be fully accessible by 2025 (Government of Ontario, 2022). The 'information and communications' standard directly relates to graphic design, with the goal of helping make information accessible to people with disabilities.

It is important for graphic designers to meet the requirements of accessibility legislation. Accessibility legislation is fundamental in bringing about a culture shift towards inclusion, across many disciplines and within communities. However, there needs to be a strategy in place to train and prepare professionals on how to comply and meet the requirements of the legislation. It is relevant and useful to consider work other governments have done, specifically in supporting graphic designers in implementing accessible design into practice. These precedents can be incorporated and built upon within relevant contexts.

The Government of the United Kingdom (2021), for example, implemented accessibility regulations for public sector bodies in 2018. As a support tool, the government developed initiatives to ensure the industry can meet accessibility requirements including a set of graphic posters to communicate the 'dos and don'ts' of designing for accessibility (Pun, 2016). These posters act as general guidelines and best design practices for making services and information accessible. Pun (2016) notes that the posters aren't meant to be overly prescriptive, for example the use of bright contrast was recommended for some individuals (e.g., low vision), while others might have different needs (e.g., individuals on the autistic spectrum). The recommendation is to test designs with users and to make compromises, where appropriate, to meet the user's needs.

Accessibility legislation within the B.C. context

Almost 25 percent of British Columbians over the age of 15 identify as having some form of disability. The number of people with disabilities, as well as the severity of their disabilities, are likely to increase as the population ages. Additionally, B.C. is the most ethnically diverse province in Canada. Almost 30 percent of British Columbians immigrated to B.C. from another country; approximately 25 percent of the population identify as a visible minority; and another six percent of the population identify as Indigenous (Government of British Columbia, 2019).

On June 17, 2021, the B.C. legislature passed the *Accessible British Columbia Act* (the Act) into law. The new Act is designed to remove barriers and create accessibility standards throughout the province (Legislative Assembly of British Columbia, 2021).

The legislation will allow government to establish accessibility standards and regulations in a range of areas that will help to remove barriers and ensure people with disabilities can fully participate in their communities (Government of British Columbia, 2021). The government of B.C. has also established a Provincial Accessibility Committee (the committee) that will advise the Minister of Social Development and Poverty Reduction on matters related to accessibility and will support the development of accessibility standards.

While the specific standards and regulations have yet to be developed, the framework for the standards has been set. Item 13.2.d of the Act identifies ‘information and communications’ as one component of the accessibility standards (Legislative Assembly of British Columbia, 2021). Information and communications is defined as “human communication such as the way people interact and communicate in the way that works for them, and technical communication such as websites and documents” (Government of British Columbia, 2021).

The standards of the Act will be developed considering several precedents, including existing accessibility legislation of other provinces such as the *Accessibility for Ontarians with Disabilities Act* (2005), or AODA (Government of British Columbia, 2019). The AODA identifies ‘accessible websites and web content’ as one component of the ‘information and communications’ standards and specifies that organizations must ensure their websites and web content conform with the World Wide Web Consortium Web Content Accessibility Guidelines (WCAG) 2.0 Level AA (Government of Ontario, 2022).

Since the government of B.C. has indicated it will be adhering to internationally accepted precedents and accessibility standards (Government of British Columbia, 2019), this research expects that the Act will include the same requirements, such as WCAG 2.0 AA. Based on this presumption, graphic designers will need to ensure their materials are accessible online but there may be limited capacity within the design community in B.C. to meet these anticipated requirements.

Figure 2 illustrates the relationship between the government of B.C., the Act, and the committee, and identifies the gap between the requirements of the Act and the benefits to end users (as the standards still need to be developed), as well as the gap on what supports and standards the committee will develop.

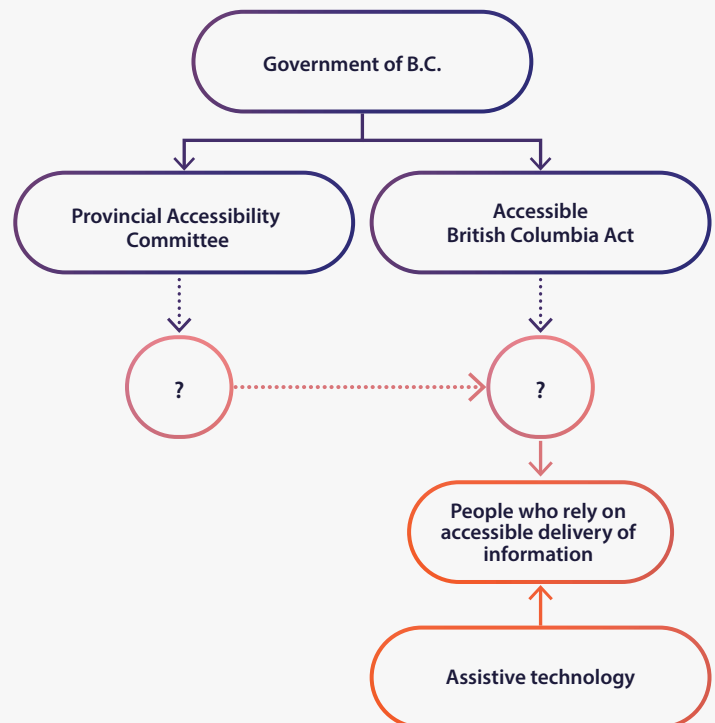


Figure 2: The missing link between the Act and the benefits to people who rely on accessible delivery of information

Inclusive design recognizes people as individuals who are not all the same and prioritizes the needs of individuals who are often not acknowledged in current systems.

The research approach was rooted in both pragmatism and the participatory design methodology. The pragmatic research paradigm centres the problem being researched as well as the consequences of the research and recommends that the most appropriate methodological approach is one that best addresses the research problem (Creswell & Plano Clark, 2018). Although accessible design has gained traction within the graphic design community in recent years, understanding 'how' accessible design principles are integrated within professional practice is not well documented. Gaining a better understanding of how graphic designers learn about, interpret, and implement accessibility standards into their practice, along with knowledge sharing and knowledge generation among participants, can lead to a more informed approach to the development of appropriate supports.

Participatory design centres the philosophy of designing 'with' people rather than 'for' them and emphasizes the perspectives and priorities of participants. The researchers and participants work together to document knowledge and ideate collective solutions through participants' lived knowledge and experience. Participatory, qualitative research methods were chosen to ensure the voices and perspectives of graphic designers – individuals who know how to produce materials in accessible format or not – were represented in the research and contributed to the development of the framework and recommendations to government.

Inclusive design framework

The research methodologies were chosen as they align well with inclusive design practices. As framed by Dr. Jutta Treviramus founder of the Inclusive Design Research Centre at OCAD University, inclusive design recognizes people as individuals who are not all the same; it considers the full range of human diversity including ability, age, culture, gender, language, and other forms of human difference (Inclusive Design Research Centre, n.d.). Inclusive design principles were integrated into the research design at each phase of the research process following the three dimensions of inclusive design: recognize diversity and uniqueness, inclusive process and tools, and broader beneficial impact (Treviramus, 2018; Inclusive Design Research Centre, n.d.). The inclusive design methodology was utilized to ensure the outcomes of this research are co-created and owned by the participants.

As Todd Rose (2017) argues in his book *The End of Average*, there is no such thing as an average person. People are complex and their experiences are unique. Recognizing the uniqueness of each individual is the first dimension of the inclusive design framework (Treviramus, 2018). Not all graphic designers have the same experiences; they face different barriers to education, entry into the industry, mentorship opportunities, and workplace and professional development opportunities. Using this understanding as a framework, it was important to include a diverse range of voices in the research to ensure the recommendations to government included actionable strategies that would support the diversity of designers across the province.

Inclusive design prioritizes the needs of individuals who are often not acknowledged in current systems (Treviranus, 2018). As an inclusive research project, it was important to centre the voices of individuals who rely on accessible delivery of information and ensure their lived experience and needs contribute to the discussion and outcomes of the research. The diverse graphic design participant group would have varying degrees of experience with accessibility design. Therefore, bringing in a disabled person with lived experience would help align the conversation and centre the importance of why designers need to do this work and consider accessibility in their designs.

Research Ethics Board approval

The OCAD University Research Ethics Board (REB) reviewed and granted ethical clearance for this research, approval #2021-64. All participants were asked a screening question to confirm they met the inclusion criteria, to ensure the validity of the results. All participants provided free, informed, and ongoing consent. Participants were also given the option to be identified and recognized as contributors of the research. Participants who chose to do so consented to their names appearing in any report and presentation of this research.

Participants and recruitment

Participant inclusion criteria were defined as graphic designers, design students or design educators who are based, or received design education, in B.C., or are graphic designers who have or identify as having a disability. This group was identified as the primary stakeholder as graphic designers are the last touchpoint in the material development process and are responsible for producing the final product in an accessible format.

Recruitment was conducted by sending invitation emails to design organizations including the Society of Graphic Designers of Canada (GDC) and the Association of Registered Graphic Designers (RGD), design educational institutions such as Emily Carr University of Art & Design, graphic design studios, freelance designers and grassroots design organizations. Formal permission from studio owners/directors was required to recruit graphic designers through design studios, from the Board of Directors to recruit through design organizations, and from Faculty Directors or administration offices to recruit through universities. Many organizations and institutions promoted the research through their social media and marketing channels, including websites and email newsletters. Additionally, recruitment graphics were posted and promoted through the student researcher's personal social networks including LinkedIn, Instagram and Twitter.

Participant demographic data was collected to ensure the research is representative of a diverse population of participants. All demographic questions were optional, and participants were not required to provide this information, although all did.

PWL inclusion criteria were defined as individuals who are temporarily or permanently visually impaired or blind, or individuals with neurodiverse conditions such as autism or dyslexia. PWL recruitment was conducted by sending invitation emails to identified individuals who met the inclusion criteria. Interested PWLs were provided with further details of the research, participants, a draft of the session activities and remuneration details. The PWL was provided the opportunity to revise the session activities as they deemed fit. Remuneration was provided immediately following the session.

Research phases

All research activities were designed to gain insights on how graphic designers learn about, understand, interpret, and implement accessibility standards, and what role they play in supporting and providing equitable access to public information. The objective of the activities was to gather beliefs, attitudes, values and motivations around access and inclusion in the graphic design industry.

Participation involved providing insights on level of awareness, experience and knowledge of accessible and inclusive design as well as accessibility legislation, whether this knowledge was gained through formal design curriculum, professional work experience or self-training, and how accessible design has been integrated into workflows and processes.

A. Environmental scan

An environmental scan was conducted to get a sense of what level of accessible design is currently being brought into graphic design materials. The review included a selection of publicly available online PDF documents from both private and public sector organizations in B.C. The documents were selected based on intent for public consumption, such as government initiatives and strategic plans, annual reports and public consultation materials.

An online search was conducted and documents were selected at random. A total of 25 documents were selected for review. For accessibility compliance, each document was tested using the Adobe Acrobat accessibility checker. Any document containing 2 or more different accessibility errors was considered not accessible. All of the documents reviewed did not pass the accessibility test and contained 2 or more different accessibility errors. The most common errors included improper table structure, incorrect tab order, improper heading nesting, incorrect list structure, missing content tags, missing annotation tags, missing bookmarks, and missing alternative text.

The document review indicated that digital accessibility is largely not being considered in print-based materials (PDFs) that are being posted online by public and private organizations in B.C. Based on this research, it is therefore recommended that additional and ongoing document reviews should be carried out, along with an audit of accessibility and inclusivity focused courses offered at B.C. design universities.

B. Literature review

A literature review was conducted to source secondary research and relevant documentation published in academic journals, conference publications, government databases, design blogs, book and podcasts, and recognized graphic design organizations such as GDC, RGD and ICoD. The findings outlined and defined graphic, accessible and inclusive design principles and practices and their convergences.

The literature review also highlighted key considerations of the fundamental right to information, the needs of individuals who rely on accessible delivery of information, and the role that graphic designers play in providing access to information.

The literature review findings informed and guided the development of the objectives and questions for the online questionnaire, semi-structured interviews, co-design session, and the framework and recommendations to government.

C. Semi-structured interviews

Semi-structured interviews were conducted to gain a more in-depth understanding of the experiences, challenges and motivations of graphic designers in regard to accessible and inclusive design, and equitable access to information. Semi-structured interviews offer greater flexibility and allow for a more discussion-based conversation. Participants are afforded the freedom to express their thoughts and opinions, which gives greater insight into what they view as important and relevant (Bryman, 2015).

A total of nine (9) one-on-one interviews were conducted. Participants included two disabled designers, a design educator, a design student, an intermediate designer, an art director, a creative director, a design agency owner, and a freelance designer.

Each interviewee brought detailed knowledge of graphic design praxis and a spectrum of knowledge on accessible and inclusive design. Participants offered expanded insights, points of view and perspectives to what was discovered in the literature review and in the online questionnaire, which further enriched the research and the design outcome.

Interviews were conducted virtually, using zoom, and were recorded with participant permission as an alternative to notetaking. Participants were able to select their preferred meeting platform and recording preference. The interviews were approximately 60 minutes in length. Each interview was transcribed and participants were provided the option to review and edit the interview transcript before it was used for data analysis.

Participants were encouraged to discuss their experience, level of awareness, and knowledge of accessible design, how their knowledge was gained, processes for integrating accessible design into workflow, barriers faced and methodological approaches to evaluation and user feedback. Participants were also asked about their level of awareness regarding accessibility legislation in Canada, the *Accessible British Columbia Act*, and various graphic design accessibility resources. The interview questions can be viewed in [Appendix A](#).

Due to the flexible structure of the interviews, the sessions organically turned into hybrid one-on-one co-design sessions where participants brainstormed and provided insights on supports they, or other designers, might need in their journey towards accessible and inclusive design and legislation compliance. The outcomes of the interviews helped inform the development of an evolved plan for the co-design session.

D. Online questionnaire

An anonymous online questionnaire was conducted to validate, amplify, complement and further understand the findings and insights gleaned from the semi-structured interviews. The questionnaire was designed to better understand how accessible and inclusive design principles are learned, understood and implemented into graphic design workflows and processes, to gather beliefs, attitudes, values and motivations around access and inclusion in the graphic design industry, and to collect a list of industry vetted accessible design resources. The questionnaire consisted of up to 26 multiple choice and open-ended questions and can be viewed in [Appendix B](#).

A total of 27 questionnaires were completed by a diverse group of participants, ranging from students with little work experience to Creative Directors with decades of experience, self-taught designers to designers with Master's degrees, designers who completed their schooling in the 1990s to present day, and a wide spectrum of knowledge and experience with accessible and inclusive design.

The questionnaire was conducted through Microsoft Forms and was available online from mid-December 2021 to mid-March 2022. All participants were asked to confirm that they were either a graphic designer, design student or design educator who was currently based, or received their design education, in B.C., or a graphic designer who has, or identifies as having, a disability. They were also asked to provide informed consent. Any participants who did not provide consent or did not deem themselves to fit the inclusion criteria were thanked for their time but were not allowed to complete the survey.

E. Co-design session

The co-design method was selected as it is an approach to designing with people, rather than for them (Treviranus, 2018). The primary goal is to elevate the voices of individuals with lived experience. This research involved the lived experience of graphic designers and focused on how their experience could inform the development of policy recommendations to ensure legislation requirements can actually be met by the design industry. The research also included the lived experience of people with disabilities who rely on accessible delivery of information and who are ultimately accessing materials graphic designers produce, in an accessible format or not.

Originally, the co-design sessions were planned as a means of co-creating the framework and set of recommendations on how government can adequately support the design industry in preparing for, building capacity, and meeting the anticipated requirements of the Act. However, as the interviews organically turned into hybrid one-on-one co-design sessions, there was already a wealth of data collected to inform the development of the framework and recommendations. One of the key findings that emerged from the questionnaire and interviews was that participants are largely not connecting with disabled users and, furthermore, were largely unaware of how to connect with disabled users and how to engage in disabled user testing. This insight provided an opportunity to evolve the objectives of the co-design session into a more collaborative working session with a disabled user so participants could gain practical working knowledge.

The session included six (6) graphic design participants and one (1) blind PWL. The PWL was invited to help align the conversation and centre the importance of why designers need to shift mindsets towards accessibility and inclusion in their designs. The co-design session included an overview of the lived experience of a blind person and any barriers faced when accessing graphic design materials, insights on what graphic designers should consider when creating materials, a demo of screen reader use, and a short Q&A. Participants were offered the opportunity to submit a sample of their work for testing during the session.

The session was conducted virtually, using zoom, and was recorded with participant permission as an alternative to notetaking. The session was approximately 60 minutes in length and participants were provided the option to review and edit any selected quotes that would be used in the final reporting. Information regarding the session was provided in advance, including the session objectives, an agenda of the session activities, an overview of the PWL and their work, and respect and safety guidelines. The purpose of the respect and safety guideline was to make sure everyone felt welcomed and comfortable sharing their experiences, insights and ideas in the session. By joining the session, all participants acknowledged and agreed to the guidelines, which included ensuring the confidentiality of all participants in the session. Participants had the option to not turn on their camera and change their display name if they were concerned about privacy.

In addition to offering practical knowledge of working with a blind PWL, the session was used as a means to validate the research findings. Participants were provided with a link to a Miro board, an online whiteboarding platform, where the research findings were presented. In the co-design sessions, participants were asked to analyze aspects of the research data and determine if any key insights were missing. They were also asked to provide overall comments and feedback on the framework and recommendations. As the session was largely dedicated to discussing and engaging with the PWL, there was limited time to review the findings and recommendations in detail. However, participants were encouraged to review the insights and findings presented in the Miro board after the session. In the days following the session, participants offered expanded insights and perspectives to the research findings. This iterative and inductive approach further enriched design outcome of the framework and recommendations. The co-design session outline can be viewed in [Appendix C](#).

The findings identify opportunities on how the design industry can be supported in their accessible design journey, and in building capacity and motivation to go beyond the minimum requirements, to think critically about accessible design and pursue opportunities for innovation.

This research investigated the ability of the graphic design community in B.C. to successfully meet internationally recognized accessibility standards, the anticipated requirements of the *Accessible British Columbia Act*, and gathered beliefs, attitudes, values and motivations around access and inclusion in the graphic design industry.

This analysis presents the perspectives, experiences, and needs of a sample of the graphic design community in B.C. The insights offer and identify opportunities on how the design industry can be supported in their accessible design journey, and in building capacity and motivation to go beyond the minimum requirements, to think critically about accessible design and pursue opportunities for innovation.

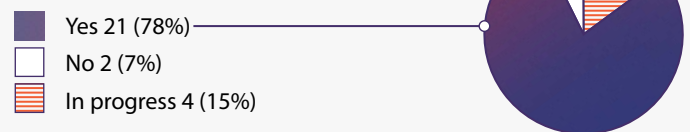
Overall, the research found that graphic designers have positive attitudes towards accessible and inclusive design and believe that graphic designers play a vital role in providing and supporting equitable access to public information. However, there is a lack of understanding on how to actually implement accessible and inclusive design in practice and the majority of designers do not feel that the graphic design industry in B.C. is prepared to meet the anticipated accessibility legislation requirements, let alone go above and beyond to pursue opportunities for innovation.

Lack of learning through formal education or self-training

Inclusion of accessibility curriculum in graphic design education is essential for graphic designers to better understand visual accessibility tools and methods (Cornish, Goodman-Deane, Ruggeri, et al., 2015). However, both the literature review and participant response indicate that accessible and inclusive design principles and technical skills are largely not being learned through formal graphic design education.

Twenty-one participants (78%) have formal graphic design education or training, and four participants were currently completing formal graphic design education. The resulting degrees either were or will be an undergraduate degree (15 participants) or a certificate or diploma (10 participants). Two participants did not have any formal graphic design education or training and both participants identified learning about graphic design through self-training.

Figure 3. Formal graphic design education or training (college or university program)



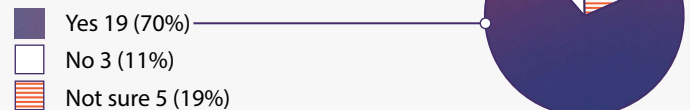
The majority of participants, eighteen (67%), indicated that accessible and inclusive design were not components of their education or self-training.

Figure 4. Accessibility or inclusive design as components of education or self-training



Nineteen participants (70%) indicated that there are aspects of accessible and inclusive design they wish they had been taught through their education or self-training.

Figure 5. Accessibility or inclusive design should have been learned through education or self-training



The aspects of accessible and inclusive design participants identified that they wish they had been taught include the following key themes:

A foundational understanding of accessible and inclusive design

- Accessible design presented and framed as a core element of graphic design and the framing of accessible mindsets
- Perspectives from industry, including best practice in accessible design, real-world case studies, and industry awards
- Principles and techniques to create more inclusive, effective, and respectful materials
- How graphic design has a real-life impact on the individual and what those outcomes are
- The idea of providing multiple modalities to optimize accessibility

A foundational understanding of disability and cultural inclusion

- An overview and understanding of different abilities, variety of circumstances and barriers individuals face when accessing digital materials, such as colorblindness and visual impairment
- Greater awareness of the needs of historically unrepresented and excluded audiences
- Integration of disability community-based design and practices over compliance and technology
- Importance of seeking disabled user input and feedback throughout the design process
- Awareness of various assistive technologies and how they function
- Awareness of racial inclusivity and cultural appropriation

Practical skills for implementing accessible and inclusive design in practice

- How to build accessible design principles into graphic design process and workflow
- How to consider the range of different abilities
- Understanding of WCAG and how these standards apply to graphic design
- How to apply accessible design principles across design disciplines (print, web, mobile, interactive)
- Colour contrast checkers
- How to create accessible materials in Adobe Illustrator and InDesign
- How to check and fix errors in Adobe Acrobat
- How to write alt text and image descriptions, what the differences are and when to use either
- Considering gender and ethnic representation in imagery
- Using non-colonial language and inclusive text
- Best practice typography considerations for readability, legibility and inclusion

Professional practice as a catalyst for learning

The majority of participants cited professional practice as the key driver for how they learned about accessible and inclusive design. The three main avenues included:

1. Accessible design being a component of design work (such as supporting government projects, disability organizations, or public information campaigns or consultation projects).

Participant #i9 noted “It’s really been through my clients. They’re the ones who taught me so very early on in my design career.”

2. Having previous relationships or experience working with people with disabilities, having connections to the disability community or being aware of and tuned-in to disability groups who are advocating for accessible design.

Participant #i6 noted “I’ve been in so many disability groups, they are the ones that taught me what an image description was, how it should be different from alt text [...] I know what alt text is but I never realized the importance of image descriptions as well for different disabilities. And so I’ve realized that a lot of those practices like larger text and everything that we’re told, I was just doing over the years, just from interacting with disabled people.”

3. Having first-hand experience witnessing the inaccessibility of materials or receiving feedback that materials develop were not accessible.

Participant #i1 noted “I know somebody who’s colourblind and I had an opportunity to sit with that person and look at a map and he explained to me what he was seeing. He said that because he’s colourblind, he spends way more time studying documents to glean their meaning, because he knows he’s not gleaning their meaning through colour. He was able to describe to me what it looked like to him. And then we went to a website, where it showed the same document side by side, and on one side it showed what a regular sighted person could see and then what a colourblind person could see [...] So to see that and to talk to somebody made it real.”

Methodologies in graphic design practice

Overall, participants were able to provide information about resources and where to look for accessible design support. However, they were largely not able to cohesively describe their methodologies for implementing accessible and inclusive design into practice which may be because there is not one comprehensive or prescribed method or toolkit for applying accessible and inclusive design principles into practice. Previous research has found that there is a general lack of awareness of accessibility and inclusive design tools among graphic designers (Cornish, Goodman-Deane, Ruggeri, et al., 2015; Goodman-Deane, Langdon & Clarkson, 2010). There has also been an expressed need for tools and standards to be developed to ensure designers have the skills and understanding required to implement accessibility in their projects (Association of Registered Graphic Designers, 2019).

This may be an indication that graphic designers are aware of some accessible design tools, such as colour contrast checkers, but aren't aware of the full breadth of tools or accessible considerations resulting in a somewhat fragmented description of methods for implementation.

A number of participants expressed that while they have some knowledge of accessible design principles and tools, they aren't confident in their overall knowledge and feel there may be considerations they aren't aware of and consequently aren't including in their practice. Other participants expressed concerns around feeling the need to be an 'expert' before they can properly implement accessibility into their practice. The fragmented description of methods for implementation could also be attributed to these feelings of inadequate knowledge.

The methodologies for implementation that were described can be broken down into two main categories, theoretical and practical. The theoretical approaches have been categorized into overarching theories and accompanying insights as outlined in Table 2.

Theories	Insights
Start with what you know	<ul style="list-style-type: none"> – Begin by implementing the basics/ start with what you know – Start by making personal brand standards or website accessible – Don't be afraid to start
This is a journey	<ul style="list-style-type: none"> – Acknowledge that you will learn and figure things out along the way – Understand that it takes curiosity, investment, effort and understanding – Be willing to learn and unlearn – There is no end or final achievement, it's about continual learning – Acknowledge that the standards and processes are always changing and progressing
Practice makes better (not perfect)	<ul style="list-style-type: none"> – Practice and get better by doing – Build on what you know – There is no 'perfect' accessible design, it's about making something better than it was yesterday – Confidence will be gained after implementation
Centre the disability community and individual needs	<ul style="list-style-type: none"> – Connect with disability communities – Build true and authentic meaningful collaboration – Be open to feedback and thinking differently – Understand the audience experience and consider that people interact with the world in different ways – Follow disability advocates, groups and organizations and listen to what they are saying and advocating for

Table 2. Theoretical approaches to accessible and inclusive design implementation in practice

The practical approaches have been categorized into overarching strategies and accompanying tactics, as outlined in Table 3.

Strategies	Tactics
Advocate for accessible and inclusive conversations at the start and throughout each project	<ul style="list-style-type: none"> – Have conversations early and often with project team – Hardwire accessibility conversations into kickoff meetings – Ensure all team members are considering and advocating for accessibility – Educate and have conversations with other designers and clients
Integrate accessible design into project management tasks	<ul style="list-style-type: none"> – Develop accessibility checklists – Develop accessibility style guides – Integrate accessibility considerations into QA process
Document best practice and continually learn and seek greater knowledge	<ul style="list-style-type: none"> – Develop a list of resources (a11y, WCAG, W3C as well as BIPOC contractors for illustration, photography, etc.) – Create a curated list of tutorials – Hold internal weekly creative gatherings to share learnings and resources – Keep records of successful design choices, encountered errors and solutions, and feedback – Bring in consultants to do the work if it can't be resourced internally – Add tags to fonts that work well for certain audiences
Integrate accessible design into InDesign workflow	<ul style="list-style-type: none"> – Use paragraph styles (h1, h2, h3, p, etc.) – Properly tag elements – Layer order should reflect proper reading order – Add articles for tagging order – Anchor images in text and add alt text – Properly tag tables – Add bookmarks – Add presets for exporting
Ensure materials are tested internally	<ul style="list-style-type: none"> – Accessibility testing in Adobe Acrobat and remediation – Test print in black and white – Check colour contrast ratio – Ensure colour isn't used as the only means of communicating information – Check typesetting for legibility (type size, kerning, leading, case)
Ensure materials are tested with disabled users	<ul style="list-style-type: none"> – Connect with disability networks and put out calls for testers – Compensate for their time, knowledge and experience

Table 3. Practical approaches to accessible and inclusive design implementation in practice

Equitable access to public information

Every individual, regardless of ability, should have the same opportunity as any other individual in being able to access and use information that is in the public realm and meant for public consumption (United Nations Convention on the Rights of Persons with Disabilities, 2006). As noted earlier, Canadian and international design organizations and their corresponding codes place the responsibility of ensuring accessibility in design on the graphic designer (Society of Graphic Designers of Canada & Association of Registered Graphic Designers, 2019; International Council of Design, 2020; AIGA, the professional association for design, 1994), therefore ultimately placing the responsibility of providing equitable access on the graphic designer.

It was important to understand what role graphic designers see themselves playing in supporting and providing equitable access to public information. In reflecting on this question, most participants were either unaware, or felt other designers were unaware, that design organization codes place the responsibility of accessibility on the graphic designer. However, the majority of participants indicated they believe graphic designers do play an important, essential or crucial role in providing equitable access to public information, as highlighted in the following participant insights:

Participant #i9 noted “I think that’s really important. And again, you know, it’s not one of those nice to haves. As Canadians we say we respect the rights and freedoms of individuals and we are an inclusive society, if we want to actually live up to those ideals that we put forward, we need to be supporting our graphic designers to be able to understand who they’re designing for, and to be able to make those decisions so that our environments are as inclusive as possible.”

Participant #i6 noted “If the information we’re trying to share isn’t accessible and isn’t designed accessible, then it’s all for naught.”

Participant #q5 noted “Communication designers are the last to touch a document before it reaches the public online. Our (my) goal has always been to create clear, interesting, legible, beautiful documents. We fail though if we don’t understand a full scope of abilities. It’s our responsibility to learn, understand and implement, not because we are mandated to, but because of our core goals of clear, legible documents. Not for some, for all.”

Participant #q12 noted “Designers have a huge responsibility in their jobs to adhere to best practices, environmental responsibility, and accessibility standards. Almost no other job is so uniquely positioned to take charge and make executive calls for these choices around whether or not something is accessible. Clients and companies are relying on designers to be professionals and advise on best practices and it’s my opinion that this responsibility extends beyond the limits of “effective design” and aesthetics into social and environmental responsibility. It can be easy to ignore decisions around accessibility and (by proxy, environmental choices), however these decisions to be accessible or not, to be eco-friendly or not, are happening whether or not you make active choices around them. If a designer chooses to not implement accessibility then the choice is made to have it not be accessible. I think that these responsibilities should be normalized and fully adapted into standard practices so all designers are aware of the best practices and implement them, just as one would prepare a file for print.”

Participant #q16 noted “Designers could be considered the front line workers of equitable access to information.”

Participant #q3 noted “It’s important for designers to take an interest and seek out ways to make the user experience better for everyone. Once you have the knowledge, you just need to champion the best inclusive options in your designs and make an articulate case of why this matter should be held as the highest marker of the design’s success.”

Some participants felt that graphic designers play a partial role as clients are typically responsible for content which also brings accessible and inclusive considerations that designers might not have control over.

Participant #i4 noted “I think I see the role as partly. It’s hard if you’re the designer, and you’re sent text that is not clear and full of jargon and has sixteen syllable words. It’s hard to be the single champion in a project, and believe me, I’ve done it.”

Furthermore, participants felt that it’s not always clear who is responsible.

Participant #i5 noted “I think people don’t like to take responsibility. No one wants to take responsibility all the time, it’s easier to pass it off in terms of like, who has responsibility for what, but is it the client? Is it the designer?”

Similar to the findings of Cornish, Goodman-Deane, Ruggeri, et al. (2015) these insights highlight a need for more effective communication between graphic designers and their clients. However, as this research and previous literature (Cornish, Goodman-Deane, Ruggeri, et al., 2015; Goodman-Deane, Langdon, & Clarkson, 2010) has found, there is a lack of awareness of accessible and inclusive design tools in industry. Therefore, any tools developed to support designer-client communication, or other, should be accompanied with an awareness campaign and promoted through trusted design organizations and channels.

Finally, some participants expressed that graphic designers need to consider users, but feel there is a limit to how much accommodation can be given before design intent is sacrificed.

Participant #i3 noted “I think that it’s an obvious one, that we can use our skills in order to create things that don’t exclude any particular audience. But as I was saying earlier, what you can’t always achieve is great design. [...] also what may frequently be sacrificed is our special abilities to tell stories, reflect diverse personalities amongst the brands that we create and communicate on behalf of. If everything needed to be legible by the hardest of sight people then you are immediately sacrificing a lot of aesthetic choices.”

Shared challenges and barriers

Studies have shown a lack of consideration has been given to accessibility in print-based graphic design (Cornish, Goodman-Deane, Ruggeri, et al., 2015) and many designers don't have the knowledge or experience to implement accessibility into their design solutions (Forlizzi & Lebbon, 2002; Lee et al., 2020; Zitkus et al., 2013). Understanding the shared challenges and barriers graphic designers in B.C. are facing was a fundamental component of this research as it led to a more informed approach to the development of appropriate supports.

The shared challenges and barriers graphic designers face in regard to accessible design can be summarized into three key themes: barriers to awareness, barriers to learning and understanding, and barriers to implementation.

Barriers to awareness

Barriers to accessible design awareness were identified as a result of the lack of integration into design education curriculum, with sixty-seven percent (67%) of participants indicating that accessible and inclusive design were not components of their education or self-training; a lack of discussion of the topic in industry, many participants noted that design organizations need to do more to promote awareness; and the challenge of getting the attention of designers when there are a number of complex and interesting topics and trends that may be more interesting to read and learn about.

Another barrier to awareness was identified as a result of clients not being aware of accessible design and therefore not requesting it in design briefs or asking for accessibility features to be removed due to lack of understanding. **Participant #15** noted "I've also had a client who asked for [alt text] to be removed in a web document, because they did not like how you hover over an image and alt text will float up [...] I wanted to say, well, this isn't for you."

Barriers to awareness of laws and legislation was another common theme. Only ten participants (37%) indicated they were familiar with the *Accessible British Columbia Act*. And almost all participants indicated they find laws and legislation difficult to comprehend and interpret in order to understand what they need to do to comply. **Participant #11** noted "I have tried to read them, but my eyes just glaze over. And I just can't get to the bottom of it." **Participant #13** noted "Not any of the pieces of communication around this legislation that I've seen is in any way clear and simple."

Barriers to learning and understanding

The majority of barriers to learning and understanding were identified as a result of feeling overwhelmed either by the amount of knowledge and skills that are required or the belief that accessible design is too complicated to learn. **Participant #i2** noted “I think this kind of goes back to even my own experience with the WCAG website, it’s very intimidating.”

Furthermore, participants expressed concerns around the complexity of the language accessible guidelines are written in. **Participant #i6** noted “I know the WCAG 3.0 guides are being rewritten for simple terms, and that’s in a working draft right now. But when you look at the 2.1, and the 2.0 guides, it’s hefty, [...] and it’s hard for people to search for what compliance even means, because we’re using such convoluted words that it was really hard for people to, or I found for me, to even get through.”

Other participants noted frustrations with accessible design resources being fragmented, hard to determine their credibility, or being behind paywalls. **Participant #i6** noted “I find that most of the barriers come down to financial access.”

Barriers to implementation

Barriers to implementation were highly connected with the role that the client plays in the graphic design process. A wide range of client-centered barriers were identified including the false belief that accessible design isn’t required because the audience doesn’t have accessibility needs, a lack of understanding of how to ask or check for accessibility, the belief that accessibility is just a ‘nice to have’ or an afterthought, and the lack of budget and time for accessible design considerations.

Some participants expressed that accessible design requires extra thought, time, and consideration in an already very time demanding space.

Participant #i9 noted “In design projects, a lot of things are very fast-paced, and a lot of times, from my career, things come to me sort of at the end [...] and then it’s like, okay, now it’s with the designer, go, we need it in very short time. And so sometimes those projects there’s a lot of pressure to produce.” **Participant #i8** noted “It takes time, it takes effort, it takes energy. And it takes a kind of curiosity.”

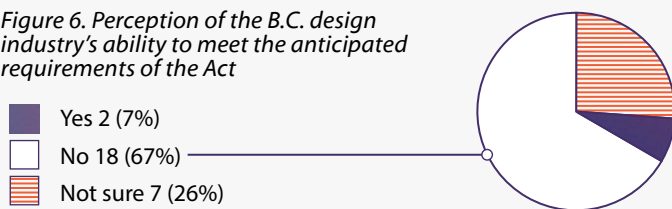
There were also some concerns around imposter syndrome. Participants expressed feeling concerned about claiming accessibility when they weren’t certain their materials would meet all accessibility standards, because there’s a lot to know. **Participant #i2** noted “I do think that’s why often when I’ve been in experiences in an agency, they want someone else to handle [accessible design] because they’re afraid to.” **Participant #i5** noted “I am no expert in this field, and I don’t have a visible disability [...] So I feel like I shouldn’t be the one to speak on the topic.”

Some designers feel accessible design is limiting and affects their design outcomes. **Participant #i3** noted “The desire to do good things like create for audiences that empower the often less empowered, there’s a sense of pride and goodness that comes from doing something like that. But [...] it’s a tricky thing to navigate. Often creating things that are ultimately ticking all of the accessible and inclusivity boxes, you end up with an inferior product. Whether it’s an aesthetic compromise, personality, or character compromise, you lose story, you lose the tools that you’re working with, your sandbox is smaller. So there’s less room to differentiate and create things that are dramatically different from each other.” **Participant #i2** noted “I definitely have come across [designers] that are not really interested in implementing those kinds of things. [...] I think there’s definitely still that kind of ‘designerly’ artistic mindset that happens a lot in design where people still definitely want to make sure it’s beautiful, and it’s interesting to look at and are less inclined to perhaps make it functional for everyone.”

Meeting the anticipated requirements of the Act

When evaluating the ability of the graphic design industry in B.C. to successfully meet the anticipated requirements of the Act, the majority of participants had low confidence that internationally recognized accessibility standards would currently be met. Eighteen participants (67%) felt that the industry is not currently prepared to meet the anticipated requirements, seven participants (27%) were unsure and two participants (7%) felt the industry is prepared.

Figure 6. Perception of the B.C. design industry's ability to meet the anticipated requirements of the Act



In considering the question, participants reflected on both their personal knowledge and experience with accessible design as well as what they have witnessed working with other designers in the industry.

Participant #i5 noted “No, I don’t think so at all. I don’t even know if most designers are aware that Act is even being considered, or that’s even something that’s happening. I am doing it at work now. And I feel very unprepared for something like that being implemented.”

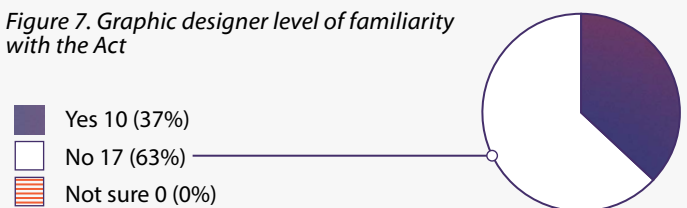
Participant #i9 noted “It’s one of those things that unless it’s enforced as a habit, or as a necessity, I don’t see it being done. So I don’t think that graphic designers in BC are ready today, I think they need support.”

Some participants reflected on the need for legislation to be communicated in a way that is easy for people to understand, particularly those who need to implement the standards. **Participant #i6** noted “Here’s the compliance, here’s how you can do it, here’s the list of resources of how we can all obtain it together.”

A common theme across the semi-structured interviews was that participants wanted to know more about what the standards would actually be, how compliance would be monitored and what consideration has been given to communicating the requirements. **Participant #i3** noted “This is a really good question. And this was one that I was looking forward to you’re asking. Because the honest answer is I have no idea what this Act includes or will entail, what the requirements are going to be imposed upon us. So I can’t answer that question. Because I know nothing about it.”

Only ten participants (37%) indicated they were familiar with the *Accessible British Columbia Act*. The majority of participants indicated they were familiar with the Act as a result of this research. Others noted they were made aware through their work and one participant was informed via an Ontario accessibility organization, but none reported being made aware by the government of B.C. This insight highlights the need for greater communication of the Act, including targeted communications to the design industry.

Figure 7. Graphic designer level of familiarity with the Act



The framework and recommendations were designed through a collaborative process with participants and represent a collective need for industry support.

The aim of this research was to co-create a framework and set of recommendations on how government can support the graphic design industry in B.C. to meet the anticipated requirements of the recently passed Act and to encourage thinking beyond accessibility legislation compliance. The literature review and environmental scan identified a gap in knowledge of accessible design among graphic designers and identified existing government support precedents that could be integrated and built upon. The questionnaire and interview findings indicate a strong need of supports for the graphic design community to gain awareness, knowledge and understanding of both accessible design as well as accessibility legislation. Furthermore, the participants were overwhelmingly encouraged by the opportunity for support and guidance in this area.

The aggregation of data collected from the environmental scan, semi-structured interviews, online questionnaire, and co-design session informed the framing and development of the framework and set of recommendations for government. The co-design process resulted in a rich depth of understanding regarding the spectrum of knowledge, attitudes, beliefs and mindsets surrounding accessible design. In the development of the recommendations, particular attention was paid to the various challenges and barriers graphic designers currently face in their awareness, knowledge, understanding and implementation of accessible design.

The framework and recommendations to government were designed through a collaborative process with participants and represent a collective need for industry support.

Accessible graphic design framework

The accessible graphic design framework was developed from the overarching themes that emerged from participant responses and feedback.



01. Partnering with the local graphic design industry

Designers and design organizations are already connected, government should leverage this connection first to create and build partnerships.



02. Championing knowledge and awareness

There is a spectrum of knowledge, awareness and understanding of accessible design that currently exists. Start by creating greater awareness and building a collective sense of knowledge.



03. Sharing through communication

The collective sense of knowledge and understanding of accessible design needs to be shared and communicated in a way that supports conversations with clients and among designers.



04. Building meaningful connections with disability communities

Partner with disability groups, organizations and communities to create collaboration and learning opportunities between people with disabilities (lived experience) and graphic designers.



05. Supporting through education

Incorporate accessible and inclusive design as foundational principles within graphic design curriculum to shift mindsets among the next generation of designers.



06. Supporting through professional practice

Provide professional development and skills training opportunities to the graphic design community to promote greater learning and to shift mindsets among practicing professionals.



07. Curating an open-source resource hub

A guide to champion this work. An always up-to-date hub where graphic designers can find accessible and inclusive design resources.

Recommendations to government

The intent is for the recommendations to be adopted and formed into government-funded programs with the aim of increasing awareness, ability and capacity among the graphic design industry in B.C. Acknowledging that supports are needed and taking steps to implement the recommendations will ultimately support more equitable access to public information.

The recommendations focus on strategic-level actions and are to be considered as a package. Successful implementation will require much more in the way of detailed specifics at the policy and program level. It is recommended that government partner with industry to support the implementation of the recommendations.



01. Partnering with the local graphic design industry

1. Partner with Canadian design organizations including GDC and RGD to support, advocate, champion and advance all recommendations. Create a sense of excitement and build ways to encourage information sharing among graphic designers.
2. Initiate the forming of an accessible graphic design advisory group to create greater cohesion between government and industry.
3. Provide funding for GDC and RGD to lead and champion accessible graphic design, develop and curate resources, host webinars and share learnings through newsletters and social networks.
4. Partner with Adobe to co-design processes that integrate a more intuitive approach to accessible design implementation through software and technology.
5. Partner with Boards of Trade and business organizations to determine opportunities for collaboration and support.



02. Championing knowledge and awareness

6. Inform the graphic design industry (graphic designers, design agencies, design students, design educators, etc.), through direct means*, of the Act and the standards that will apply to the graphic design discipline (*direct means indicates direct contact such as email, phone or mail).
7. Provide a plain language, easily digestible version of the Act and standards that provide clarity around what is required and associated penalties. The information should be provided using multiple modes of delivery including written, audio and video.
8. Create an awareness campaign geared towards graphic designers. The campaign should be funded by government but created and driven by industry and distributed through both organic and paid advertising channels.
9. Create a similar awareness campaign that is geared toward communications professionals, content developers and copywriters. These individuals are part of the material development process and are often the clients of graphic designers.



03. Sharing through communication

10. Provide a high-level overview of the Act, the standards, and the implications for the design of materials.
11. Provide a high-level overview of accessible and inclusive design, including definitions, the rationale for integration into design, and the benefits of accessible materials and providing equitable access.
12. Provide high-level talking points and key messages for graphic designers having accessible design conversations with clients, helping stimulate conversations around the need and communicating the value, and helping clients navigate the legislation, what it means for them and the implications for the materials they produce.
13. Provide high-level talking points and key messages for junior graphic designers having accessible design conversations with senior designers, creative directors or agency owners where accessible design hasn't been built into the culture and workflow.
14. Provide a high-level overview for communication professionals/clients on how the legislation applies to their work and what they need to be requesting in design briefs.



04. Building meaningful connections with disability communities

15. Partner with disability groups and organizations in B.C. to develop a best practice guide on how to work with the disability community and individuals with disabilities for accessible design testing and advancement in a respectful and ethical way.
16. Develop and fund a province-wide disabled user testing and co-design program that includes:
 - recruiting and supporting an active network of people with disabilities who use various assistive technologies.
 - crowdsourcing a virtual testing space, if and when needed.
 - providing access for graphic designers to connect with the network of testers for accessible design testing.
 - providing a means for collecting disabled user inputs and feedback for broader integrated learning.
 - setting a transparent and equitable means of compensating disabled users for their time, experience and contributions.



05. Support through education

17. Provide funding to all post-secondary institutions offering programs in graphic design to support the integration of accessible design into curriculum as a foundational course as well as a foundational element that is embedded within all design coursework.
18. Work with educational institutions to play a leadership role in implementing standardization among accessible design education.
19. Work with educational institutions to implement continuing education classes on accessible design for working professionals.
20. Provide funding to support faculty research of accessible design theory, teaching frameworks and methodologies for implementation in practice.
21. Work with educational institutions and industry to implement co-operative programs that are designed with an accessibility focus.



06. Supporting through professional development

22. Provide professional development grants or tax subsidies for working graphic designers to access accessible design training and continuing education courses.
23. Develop an incentive program for initiatives that go above and beyond the minimum requirements of the Act and are promoting innovation.
24. Provide grants for organizations who will need to upgrade their websites and materials.
25. Provide funding to support professional practice research of accessible design theory, learning frameworks and methodologies for implementation in practice.



07. Curating an open-source resource hub

26. Build a dedicated, open-source resource hub for graphic designers to access the gold standard. All resources must be current and in line with advances in best practice, technology, and legislation compliance. The hub should include:
 - all communications documents as referenced in the ‘sharing through communication’ framework recommendations.
 - information on how to apply for professional development funding as referenced in the ‘06. supporting through professional practice’ framework recommendations.
 - documentation on working with disability groups and individuals with disabilities as referenced in ‘04. building meaningful connections with disability communities’ framework recommendations.
 - a curated and industry vetted list of resources, training materials and webinars.
 - practical resources on how to implement accessible design across mediums and interdisciplinary design disciplines.
 - plain language versions of accessible design guidelines (such as WCAG) and examples of how the guidelines are implemented within practice.
 - documentation of known and recognized benchmarks to help check adherence.
27. Integrate into the resource hub a platform for communication and collaboration that acts as a space for graphic designers to connect, ask questions and share resources and learnings.

Interim resource hub

In addition to the framework and recommendations to government, it was identified that an interim resource hub could be created to publish the wealth of knowledge and resources that were shared through this research. A research website has been developed at accessiblegraphic.design to act as a resource for designers with future collaboration initiatives including adding and vetting resources.

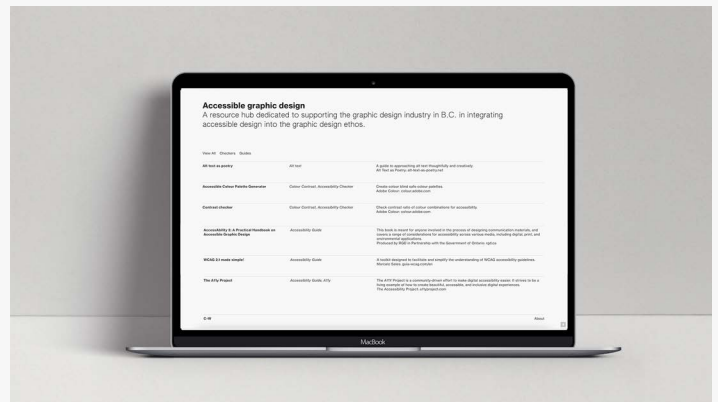


Figure 8. Accessible graphic design resource hub website

This research is an initial step in supporting the graphic design industry in B.C. in integrating accessible design into the graphic design ethos.

The intent of this research was to identify how the graphic design industry in B.C. could build capacity in accessible and inclusive design, and adequately prepare to successfully meet the anticipated requirements of the *Accessible British Columbia Act*. Through a series of in-depth interviews, online questionnaires, and co-design activities the research found that graphic designers largely feel they are not currently prepared to meet the anticipated requirements of the Act. This may be attributed to the lack of accessible and inclusive design curriculum within graphic design education as well as the shared set of challenges and barriers to awareness, learning and implementation of accessible design within the graphic design process.

Despite these challenges and barriers, graphic designers largely believe they play an important, essential or crucial role in supporting and providing equitable access to public information. They were able to identify a number of accessible design resources, and indicated a strong desire to gain a deeper understanding and more informed knowledge through formal, government-funded support systems. The supports graphic designers feel the design industry needs to successfully implement accessible and inclusive design into practice include pathways to awareness, supports for learning and understanding, and supports for implementation.

Through an iterative design process, participants helped to co-create a framework and set of recommendations on how government can support the graphic design industry in integrating accessible design into the graphic design ethos. There was a wide spectrum of understanding and knowledge held by the participants, and knowledge-sharing played an essential role in identifying the collective need of industry as well as, ultimately, the recommendations to address the need.

This design outcome is an initial step in preparing and supporting the design industry in B.C. to consider and implement accessible design. Acknowledging that supports are needed and taking steps to implement the recommendations will help improve the accessibility of graphic design and will ultimately support increased equitable access to public information.

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Appendix A. Interview guide
Appendix B. Online questionnaire
Appendix C. Co-design guide

Education questions

1. Do you have formal graphic design education or training (completed a college or university program)?
2. [If yes or in progress] Where did you receive (or where are you receiving) your education or training?
3. What was the resulting degree or certification?
4. [If no] How did you learn about graphic design?
5. Can you describe your program or training?
 - What courses did you gravitate to?
 - Do you recall anything about your program or classes that stuck out for you in a meaningful way?
6. Do you recall accessibility or inclusion being components of your program or training?
 - If yes, what curriculum was taught?
 - Do you recall having specific classes or lessons regarding accessibility or inclusive design?
 - Was an entire course (or multiple courses) dedicated to the subject?
 - Were there assigned readings and assignments on accessibility or inclusive design?
7. Is there anything regarding accessibility or inclusion you wish you had been taught in your program or training?
8. Do you have additional thoughts or reflections regarding how you learned about accessibility or inclusive design?

Awareness questions

9. What is your level of familiarity with accessible or inclusive design?
10. Can you describe the ways in which you are familiar with accessibility or inclusive design?
 - When was the first time you heard about accessibility or inclusive design, if not in school?
 - Is there anything that specifically stands out about the experience?
11. Can you describe what accessible design means to you?
12. Can you describe what inclusive design means to you?
13. Are you familiar with any accessibility or inclusive design resources? If yes, please describe.
 - Do you feel these resources have helped you integrate accessible design or inclusive design into your practice?
14. For graphic designers who may not be currently aware of accessibility or inclusive design, how do you think these designers could be informed?
15. What role do you think graphic designers play in providing equitable access to public information?
16. Are you familiar with any accessibility laws?
 - If yes, please describe how you are familiar.
17. Are you familiar with the *Accessible British Columbia Act*?
 - If yes, please describe how you are familiar.

Professional practice questions

18. How many years of graphic design experience do you have (not including education or training)?
19. What is your current role or title?
20. To what extent do you agree with the following statement? Accessibility is very important in my day-to-day graphic design work.
21. To what extent do you agree with the following statement? Inclusive design is very important in my day-to-day graphic design work.
22. When did you first start implementing accessibility or inclusive design in your professional practice?
 - Can you tell me a bit about how/why this happened?
 - Has anything changed since you first started implementing accessibility? Such as process or awareness levels?
23. Can you explain how you incorporate accessibility or inclusive design in your practice?
 - Can you describe the processes that are involved?
 - How do you integrate it within your workflow?
 - What evaluation methods do you use?
 - Was the process initiated by yourself, your employer, your client?
24. Do you interact with the end user when you are designing materials?
 - If yes, can you describe any tools or methods you use to interact with end users? (Such as focus groups, interviews, expert evaluation, etc)
25. Have you ever interacted with a user that has some form of impairment or disability?
 - If yes, can you describe any tools or methods you use to interact with end users? (Such as focus groups, interviews, expert evaluation, etc)
26. Do you find clients are requesting accessibility or inclusion in design briefs/project scope?
 - If yes, how are they typically making the request?
 - If no, are you discussing accessibility and inclusive design with your clients?
27. What would you say the benefits are of applying accessible or inclusive design in practice?
28. What do you think some of the barriers and challenges are to adoption or accessible and inclusive design in practice?
29. What process do you follow to learn a new skill in design and integrate that into your practice?
30. How do you think the design industry can work to shift mindsets and motivate graphic designers to consider accessibility and inclusive design in their practice?
31. Considering the newly passed *Accessible British Columbia Act*, do you think the design industry in B.C. is equipped to meet the anticipated requirements of the Act?

Screening question

Are you a graphic designer, design student or design educator who is currently based, or received design education, in B.C.? OR are you a graphic designer who has, or identifies as having, a disability?

Education questions

1. Do you have formal graphic design education or training (completed a college or university program)?
 - Yes/No/In progress
2. [If yes or in progress] Where did you receive (or where are you receiving) your education or training?
3. What was (or will be) the resulting degree or certification?
 - Master's degree/Undergraduate degree/Certificate or diploma/Other
4. [If no] How did you learn about graphic design?
 - Self taught/Taught by family or friend/Other
5. Were accessibility or inclusive design components of your program/self-training?
 - Yes/No/Not sure
6. Is there anything regarding accessibility or inclusion that you have learned through your professional practice that you wish you had been taught in your program/self-training?
7. Please describe what you wish you had been taught in your program/self-training.

Awareness questions

8. What is your level of familiarity with accessible or inclusive design?
 - Extremely familiar/Somewhat familiar/Somewhat not familiar/Extremely not familiar
9. Are you familiar with any accessibility or inclusive design resources?
 - Yes/No/Not sure
10. [If yes] Please list or describe the resources you are familiar with.
11. Are you familiar with any accessibility laws?
 - Yes/No/Not sure
12. [If yes] Please list or describe the laws you are familiar with.
13. Are you familiar with the *Accessible British Columbia Act*?
 - Yes/No/Not sure
14. [If yes] Please describe how you are familiar with the *Accessible British Columbia Act*.
15. What role do you think graphic designers play in providing equitable access to public information?

Professional practice questions

16. How many years of graphic design experience do you have (not including education or training)?
 - Less than 2 years/Between 2 and 5 years/5 to 10 years/More than 10 years
17. To what extent do you agree with the following statement? Accessibility is very important in my day-to-day graphic design work.
 - Extremely true/Somewhat true/Slightly true/Not true at all
18. To what extent do you agree with the following statement? Inclusive design is very important in my day-to-day graphic design work.
 - Extremely true/Somewhat true/Slightly true/Not true at all
19. Do you interact with the end user when you are designing materials?
 - Yes/No/Not sure
20. Which tools or methods do you use to interact with end users?
 - Focus groups/Interviews/Expert evaluation/feedback/User observation
21. Have you ever interacted with a user that has some form of impairment or disability?
 - Yes/No/Not sure
22. Which tools or methods do you use to interact with a user that has some form of impairment or disability?
 - Focus groups/Interviews/Expert evaluation/feedback/User observation
23. Do you find clients are requesting accessibility or inclusion in design briefs/project scope?
 - Yes/No/Not sure
24. Are you discussing accessibility and inclusive design with your clients?
 - Yes/No/Not sure
25. Considering the newly passed *Accessible British Columbia Act* and the role that accessibility and inclusive design plays in ensuring equitable access to public information, do you think the design industry in B.C. is equipped to meet the anticipated requirements of the Act?
 - Yes/No/Not sure
26. If you have any final comments, please include them below.

Welcome and thank you for participating in this research study on equitable access to public information and the role of the graphic designer.

The purpose of the research is to investigate the ability of the graphic design community in B.C. to successfully meet the anticipated requirements of the newly passed *Accessible British Columbia Act* and to co-create a framework and set of recommendations on how government can support the graphic design industry in learning and advancing their accessible design skills and practice. As well as to collectively establish methods to promote innovation within accessible design and encourage thinking beyond legislation compliance.

As an inclusive design project, this research has been designed around the co-design methodology. Co-design is an inclusive, collaborative process where a diverse group of people with relevant skills, experience and interests come together to provide advice and make decisions on an initiative. The process is intended to be meaningful and is designed and implemented in a way that ensures the input from participants is incorporated into the final product.

The objectives for this co-design session are to review, validate and iterate the research findings, and particularly the recommendations for government.

Respect and safety guidelines

The purpose of the respect and safety guidelines is to make sure everyone feels welcomed and comfortable sharing their experiences, insights and ideas in this space. By being here we all acknowledge and agree to the respect and safety guidelines. Collectively we agree to the following group norms:

- Respect: All participants are welcome and treated with dignity and respect.
- Equality: All participants have an equal voice, and all contributions and opinions are afforded the same respect.
- Safety: All participants feel safe and supported sharing their experiences, insights and ideas in this space.
- Accessibility: Communication is accessible to all participants.
- Acknowledgement: The skills and experiences of all participants are acknowledged and valued.
- Confidentiality: Participant identity, contributions and opinions are treated confidentially and not discussed outside the group.
- Anonymity: Input will be presented as aggregated group data.
- Is there anything that anyone would like to add?

Person with lived experience (PWL)

In this research (and more broadly in our work) it's important to center the voices of individuals who rely on accessible delivery of information and ensure those voices contribute to the discussion and outcomes. I'm very excited to welcome a blind person with lived experience who has kindly agreed to share their experience and expertise with us. The PWL will lead the following presentation and discussion:

- overview of experience and barriers faced when accessing graphic design materials
- insights for graphic designers to consider when creating materials
- user testing and why it's important
- screen reader demo
- Q&A

Please add your questions to the board in Miro or feel free to unmute yourself to voice your questions or type in the chat.

Review of research and framework and recommendations

- Review of research findings
- Review of framework and recommendations in Miro
- Discussion of the research findings
- What's missing?
- Prioritization of recommendations

