



Accessible and engaging graphic design

Carli Spina

To cite this article: Carli Spina (2020) Accessible and engaging graphic design, Public Services Quarterly, 16:3, 194-199, DOI: [10.1080/15228959.2020.1772168](https://doi.org/10.1080/15228959.2020.1772168)

To link to this article: <https://doi.org/10.1080/15228959.2020.1772168>



Published online: 12 Aug 2020.



Submit your article to this journal [↗](#)



Article views: 1576



View related articles [↗](#)



View Crossmark data [↗](#)



Citing articles: 3 View citing articles [↗](#)

MARKETING

Katy Kelly, Column Editor



COLUMN DESCRIPTION

The PSQ Marketing Column features essays about a variety of creative and innovative marketing strategies used to highlight collections or promote services in all types of libraries. Its purpose is to provide real examples of how libraries are using marketing and outreach techniques in interesting ways. The column offers practical insight from libraries engaged with marketing. In addition to marketing, the column also features essays on successful programs and events that promote the library.

Accessible and engaging graphic design

Carli Spina

Fashion Institute of Technology Gladys Marcus Library, New York, New York

ABSTRACT

Graphic design is an important part of library marketing efforts that impact a wide range of projects, from the creation of outreach materials to the design of signage. Because it reaches so many areas of the library, it is important that graphic design work be done in a way to maximize accessibility and inclusion. By integrating accessibility considerations and best practices into design workflows, it is possible to create designs that are simultaneously accessible, inclusive, and visually engaging.

KEYWORDS

Accessibility; inclusion;
graphic design; disability

While it may not be the first skill that comes to mind when people think about librarianship, graphic design impacts much of the work done in libraries, from creating marketing materials to web design to developing clear signage. Even the products and tools that librarians evaluate for inclusion in their collection and use at their library are based around a series of graphic design decisions that are often one of the factors under consideration when evaluating the resource. Graphic design truly touches on every area of libraries.

Because it permeates so many different areas of library work, it is essential that library graphic design be done in a way that fosters inclusion. One aspect of this process is ensuring that it is accessible to people with disabilities. Given that 15% of the world's population have some type of disability (Disability Inclusion, 2020, The World Bank), this can have a huge impact. Moreover, even people who do not identify as having a disability may nevertheless benefit from accessible design decisions, for example due to limitations stemming from environmental conditions or age-related changes, such as vision changes, and other factors.

CONTACT Carli Spina ✉ carli_spina@fitnyc.edu 📍 Fashion Institute of Technology Gladys Marcus Library, Seventh Avenue at 27th Street, Room E605, New York, New York 10001

Comments and suggestions should be sent to the Column Editor: Katy Kelly ✉ kkelly2@udayton.edu 📍 Coordinator of Marketing and Engagement, University of Dayton, 300 College Park, Dayton, OH 45469-1360

© 2020 The Author(s). Published with license by Taylor & Francis Group, LLC

These considerations are often overlooked in print materials. In a web design environment, by contrast, standards like the Web Content Accessibility Guidelines (Henry, 2018) offer guidance on how to develop accessible designs, but, even in an online environment, there are other considerations that can improve inclusivity. Thoughtful design choices can offer a significantly more accessible experience for users with many types of disabilities. By focusing on a few questions and design decisions, it is possible to make successful and engaging graphic designs that will be more accessible for a range of users. These are not the only factors that can impact accessibility in designs, but they allow creators to make meaningful improvements to their graphic designs that will improve accessibility and usability.

Factors to consider when planning a design

When starting a design project, it is important to make some initial decisions. An important aspect of this is deliberately integrating accessibility considerations, including accessibility testing in an online environment, into the established design workflow. When designing materials that will be displayed in physical spaces, it is important to start by answering a few questions:

- Where will this design be displayed? The exact features of the space in which a specific design is displayed can have a huge impact on accessibility. All of the following features are important to consider.
- What are the lighting conditions under which the item will be displayed? Is the area well lit? Does the lighting change at different times of day or in different types of weather? The more dimly lit the space is, the larger the font should be and the higher contrast the colors should have. This will ensure that the content is visible to all, even those who may have low vision.
- How far away from the design will the average viewer be? While it may be obvious that the further away the viewer will be, the larger the font should be, there are other impacts of distance as well.
- What is the surrounding content in the space where the item will be displayed?
- Will the design be offered both in print and online? It is important to keep in mind that “[p]rint-based graphic design presents particular challenges with regard to accessibility, as these designs cannot be modified by the user in the way that designs can on screen, forcing the audience to rely heavily on their visual capabilities” (Cornish et al., 2015). This makes it even more important to consider how print materials can be made inclusive.

When the design will be used in multiple physical locations, it should be designed with versatility in mind so that it will be usable and accessible everywhere it is placed.

At this point in the design process, it is also worthwhile to consider whether the item may be offered in multiple contexts and formats. Offering outreach and marketing materials in multiple formats can significantly improve accessibility. For example, if you are designing print materials, this might mean offering a large print version of brochures that otherwise have a significant amount of relatively small print. This can also

extend to offering electronic versions of print materials online in an accessible format so that individuals who use assistive devices will be able to navigate through the documents using these devices. For materials that are primarily designed for online use, posting multiple versions can still be useful since some file types work better with assistive devices than others. Creating multiple versions is a great way to increase accessibility often with minimal additional work since many tools offer the option to output designs in more than one file type.

Layout and structure

The way that the elements are arranged on the page is a key aspect of graphic design, and can have important implications for accessibility. Focusing on accessibility when designing the layout of the content can not only improve visual accessibility but also improve accessibility for those with cognitive and learning disabilities. Fortunately, many of the approaches that will improve the accessibility of a design can also be used in ways that are more generally readable and visually appealing, but it is important to prioritize accessibility in making final decisions.

To be both accessible and readable, the layout of a design should also include a significant amount of negative space, which is the empty or blank space around the design elements, whether these are text or images. Negative space is what keeps a design from looking “busy” or overcrowded. There are many ways to introduce negative space into a design that involves a significant amount of text, including bullet points, numbered lists, greater space between lines or paragraphs, and even indentation. Regardless of whether a design has a lot of text or very little, negative space can make the design more readable and ensure that there aren’t unnecessary distractions which can make a design overwhelming and therefore less accessible and generally less user-friendly.

Beyond negative space, it is also important to consider how your elements interact with one another. In particular, overlapping images can not only be visually confusing, but, particularly with typography placed over design or images, can make the text more difficult to read. In situations where it is necessary to place text on top of an image, it is important to test the contrast of the text on the image. Adding a shadow to the image or making the image more transparent can also help to improve the readability of text positioned over an image. Even if images are not used in the design, it is important to lay out text in a way that is clear and readable. In most cases the best option for readability is to left align text, but where this is not possible, the alignment should at least be consistent within sections of the design.

When designing a layout, there should be a clear structure and hierarchy to the content. When working with text in an online environment, this is often achieved using the heading elements, which is why it is so important to use them in a way that is related to the organization. On the web, this serves two functions. First, many assistive devices, such as screen readers, allow users to navigate through the outline of the page using these heading elements. Without this structure, moving through a page with a screen reader is more time consuming and less user-friendly. In addition, it helps all users to visually make sense of the content when there is a clear structure. This second point is true in both online and physical environments. If the headings of the content serve as

an outline for the text, readers can more quickly skim through it and understand the meaning. This is particularly important for items with a significant amount of text such as handouts, brochures, and similar items. With respect to images, structure and hierarchy can be conveyed by placement and size. More important design elements are generally placed at the top or center of the design and are larger than less important elements. This can help to make the visual elements and their relationship to one another clear and “readable.” Taken together, attention to layout and structure can make designs considerably more accessible and user-friendly while also allowing for visually engaging designs.

Fonts and typography

It is probably no surprise that font choices can make a huge difference in readability and accessibility. However, it is very important to know exactly what factors have an impact. The first step is to keep in mind that any online text should be presented as actual text and not as an image. If your design does require including text in an image, it won’t be accessible to those using screen readers unless it is reproduced in the image’s alt-text or alternative text and may not be accessible to those who enlarge web content if the image is not a high-resolution file.

When selecting a font, the key is to select a font that is readable rather than decorative. Often called Display Fonts, fonts designed primarily to be decorative, such as fonts meant to mimic the look of calligraphy or engraving, are often used in graphic design projects because they can be eye-catching, but they are also inaccessible to many users. Moreover, most agree that sans serif fonts, such as Helvetica and Arial are more readable than serif fonts, such as Times New Roman. Avoiding italics, underlining, and bold text (other than when used in headings) will also improve accessibility for most users. Font size also influences accessibility. Generally the smallest font that should be used is 14 point font. Larger font sizes should be used for items that will be seen from a distance, such as posters and presentations. A good rule is to avoid making the text overly decorative. Many decorative font possibilities, such as mimicking cursive or using all capital letters, will make the font more difficult to read.

In recent years, work has been done to develop fonts that aim to be more accessible for those with dyslexia. Several different fonts have emerged from this work, including EasyReading (EasyReading Font, [n.d.](#)), OpenDyslexic (OpenDyslexic, [n.d.](#)), and Dyslexie (Dyslexie Font, [n.d.](#)). Some libraries have even experimented with using these fonts for outreach materials, such as the use of OpenDyslexic for exhibit materials at Texas A&M University’s Cushing Memorial Library and Archives (Laddusaw & Brett, [2019](#)). However, the efficacy of these fonts has been controversial at best, with several studies finding that fonts designed specifically for those with dyslexia do not increase either reading speed or accuracy, particularly when inter-letter (kerning) and inter-word (tracking) spacing are controlled (Galliussi et al., [2020](#); Kuster et al., [2018](#); Marinus et al., [2016](#); Wery & Diliberto, [2017](#)). Even in a study that reported some reader preference for this type of font, no statistical impact on reading speed or accuracy was found (Zikl et al., [2015](#)). For this reason, it is not clear that adopting one of these fonts will have a meaningful impact on the accessibility of online or printed materials.

Color and contrast

Color and contrast are two important aspects of visual accessibility for both print and online content. Though color can add a lot of visual interest to a design, it is important not to use it as the sole means of communicating information because this will make the design inaccessible to anyone who is color blind. It can be easy to assume that not many people who are color blind will encounter a design, but in reality, it is relatively common. Color blindness, also known as color vision deficiency, actually refers to several conditions that each have different impacts on how color is perceived. According to the National Library of Medicine, the most common condition makes it difficult to perceive the difference between shades of red, yellow, and green (U.S. National Library of Medicine, 2020a), which is why it is particularly important not to use those colors as the only means of conveying information. In total, approximately one in every ten men and approximately one in every two hundred women (U.S. National Library of Medicine, 2020b) have some type of color perception condition. This means that all information that is conveyed with color should also be conveyed with text, symbols, or textures. Common examples of this are the way that many depictions of positive and negative use a green checkmark and a red X so that the meaning is conveyed both with the color and the symbol or the way that data visualizations often have both a different color and a unique texture for each element. One way to check this before finalizing a design is to review a grayscale version of the design (for example, by printing it in black and white) to confirm that all the information is clear without reliance on color.

Contrast is another key aspect of accessible design. Contrast frequently is the most important element for improving clarity and legibility; the higher contrast a design has, the clearer and more legible it will be, particularly under less than ideal circumstances. Increasing the contrast between elements of a design, and particularly between text and the background, makes the design understandable at greater distance and in lower lit environments. Even more importantly, increasing contrast can significantly improve accessibility since many people with low vision or who have naturally declining vision due to age may struggle to read low contrast materials. Using complementary colors is one way to ensure contrast. When that is not possible, color contrast checkers that are used for web design work can also be used to select colors for print projects, though it may be necessary to convert the color code to another format for use in graphic design software. Fortunately, there are free tools for this available online.

Selecting materials for physical items

Another important aspect of accessibility for physical marketing materials is the material on which the design is printed. The goal should be minimizing glare, which means that the paper or other surface should ideally be matte rather than glossy. It can also be helpful to use an off-white paper, particularly for designs with a significant amount of white space as this will also reduce glare. If the design will be placed behind glass, such as in an exhibit case or frame, the glare of that surface should also be considered and minimized as much as possible. For double-sided items, it is also important to select a weight of paper that prevents the text on one side of the page from being seen on the

other side as this will make the item less accessible for those with both visual and cognitive disabilities.

Whether a design lends itself to many of the techniques discussed above or only one of them, considering accessibility throughout the design process and evaluating whether these approaches apply to a particular design can lead to designs that are usable for a wider range of patrons, including those with disabilities. Because these elements vary greatly between designs, the best approach to this work is to integrate these accessibility considerations into all design workflows. Doing so can ensure marketing and promotional materials that are accessible and foster greater inclusion.

Notes on contributor

Carli Spina is an Associate Professor and the Head of Research & Instructional Services at the FIT Library. She has extensive experience teaching, publishing, and working on projects related to copyright, Open Access, accessibility, inclusion, Universal Design, and user experience.

References

- Cornish, K., Goodman-Deane, J., Ruggeri, K., & Clarkson, P. J. (2015). Visual accessibility in graphic design: A client–designer communication failure. *Design Studies*, 40, 176–195. <https://doi.org/10.1016/j.destud.2015.07.003>
- Disability Inclusion. (2020, April 1). *The World Bank*. <https://www.worldbank.org/en/topic/disability>.
- Dyslexie Font. (n.d). *Read, learn and work with more ease*. <https://www.dyslexiefont.com/>.
- EasyReading Font. (n.d). EasyReading font: High-legibility typeface. <http://www.easyreading.it/en/>.
- Galliusi, J., Perondi, L., Chia, G., Gerbino, W., & Bernardis, P. (2020). Inter-letter spacing, inter-word spacing, and font with dyslexia-friendly features: Testing text readability in people with and without dyslexia. *Annals of Dyslexia*, 70(1), 112–141.
- Henry, S. L. (2018, June 22). *Web content accessibility guidelines (WCAG) overview*. <https://www.w3.org/WAI/standards-guidelines/wcag/>.
- Kuster, S. M., van Weerdenburg, M., Gompel, M., & Bosman, A. M. (2018). Dyslexie font does not benefit reading in children with or without dyslexia. *Annals of Dyslexia*, 68(1), 25–42. <https://doi.org/10.1007/s11881-017-0154-6>
- Laddusaw, S., & Brett, J. (2019). Dyslexia-friendly fonts: Using open dyslexic to increase exhibit access. *College & Research Libraries News*, 80(1), 33–36. <https://doi.org/10.5860/crln.80.1.33>
- Marinus, E., Mostard, M., Segers, E., Schubert, T. M., Madelaine, A., & Wheldall, K. (2016). A special font for people with dyslexia: Does it work and, if so, why? *Dyslexia (Chichester, England)*, 22(3), 233–244. <https://doi.org/10.1002/dys.1527>
- OpenDyslexic. (n.d.). A typeface for dyslexia. <https://opendyslexic.org/>.
- U.S. National Library of Medicine. (2020a, April 9). *Color blindness*. MedlinePlus. <https://medlineplus.gov/ency/article/001002.htm>.
- U.S. National Library of Medicine (2020b). April 28). *Color vision deficiency*. Genetics Home Reference. <https://ghr.nlm.nih.gov/condition/color-vision-deficiency>.
- Wery, J. J., & Diliberto, J. A. (2017). The effect of a specialized dyslexia font, OpenDyslexic, on reading rate and accuracy. *Annals of Dyslexia*, 67(2), 114–127. <https://doi.org/10.1007/s11881-016-0127-1>
- Zikl, P., Bartošová, I. K., Víšková, K. J., Havlíčková, K., Kučírková, A., Navrátilová, J., & Zetková, B. (2015). The possibilities of ICT use for compensation of difficulties with reading in pupils with dyslexia. *Procedia-Social and Behavioral Sciences*, 176, 915–922. <https://doi.org/10.1016/j.sbspro.2015.01.558>