Email Accessibility Guide

DMA
Data &
Marketing
Association

/ Contents

/ Introduction

There was a time when accessibility meant a flashing light on a telephone and a Windows setting that allowed the Microsoft paperclip to read out loud a word document.

Thankfully, nowadays we're much more aware of accessibility, and it covers a lot more than a screen reader and giant fonts. It's now a design consideration for more than just software architects and developers, but part of a marketer's toolkit too.

As technology advances, accessibility becomes more and more apparent. Not necessarily because this demographic is growing – although 15% of the population are living with a disability – but because tech has been developed to become more inclusive.

If technology is now available to more people, the media it distributes needs to be available in the required formats as well. However, from a disability standpoint, it's not always the format of the media that makes the difference, but the design and layout considerations that make it accessible to all.

Well-structured emails are something we have all been looking to create, and many of us think we're doing that reasonably well. Nevertheless, a well-structured email for a screen reader may not necessarily be the same as the well-structured funky layout your agency sent through that everyone seems to love, even though it's responsive and above-the-fold.

The point I'm making is that most email campaigns are designed with best practice in mind, but now, including accessibility into your strategy, should be part of those best practice measures. Though it's not just about technology. Accessible email design covers much more than that. In fact, it probably covers things you hadn't even thought about.

For example, did you know that the colours you use can affect how your CTA performs – and I don't mean red for danger or blue for calm. I mean that three million people in the UK are colour blind and can't see your green button on your grey background. Or that seven million people in the UK can't tell where the link is in your snazzy copy because they are dyslexic.

When we think of accessibility, we are drawn to the more serious end of the spectrum. For example, screen readers for those with limited or no eyesight, or removing animations that can trigger epilepsy. While those are hugely important considerations, rarely do we consider the spectrum of disabled persons that prevent engagement in our campaigns.

As marketers, the more accessible our campaigns become, the more inclusive we become – and our chance of success grows. Our accessibility blueprint should allow us to consider many disabilities when creating our emails, and conforming to certain standards can help us achieve this.

Whether it be structured content or special web protocols, there are tools and methodologies to follow that make accessible email design easy to accomplish. When implemented successfully, we can reap the benefits of engaging with our whole audience, not just those able to access it.

Whilst email as a medium has traditionally lagged behind on the technology front, with reasons ranging from the number of hoops an email has to jump through for itself to be displayed correctly in the inbox to the number of providers that make up that chain, from an accessibility standpoint, it's allowed us as marketers to transition more easily.

Not only is there is less to pair back, but email campaigns follow a fairly unchanged structure in terms of what can be done and, as an industry, we have had to adapt and reorganise our designs to suit. In fact, email provides one of the strongest opportunities for delivering accessible marketing, and this guide explains why and how.

Daniel Lack
Head of Digital at Growth Track and Chair of the Email in Practice Hub

/ Why is Accessibility So Important to Marketers and How Can We Best Approach It?

Like any other element of the planning process of a successful campaign, including accessibility in your email strategy starts with the consideration of your audience. Placing accessibility at the beginning of the campaign development process ensures all aspects of the general accessibility spectrum find their way into your email campaign, without compromising on impact and brand messaging.

Treating accessibility like an inconvenient afterthought can jeopardise the integrity of your entire campaign.

The good news is everything that works well for people with special requirements also works better for everyone else. Compare your email campaign to a new building that you're mapping out and briefing your architects on design. To enable as many people as possible to visit and use the new building, the design would take great care integrating ramps and use clearly legible signage.

Visitors of all abilities and demographics will benefit from your supportive features and appreciate the way you're succeeding in inviting the broadest possible audience, without compromising and cutting corners. Integrating this level of inclusivity into the email development process relies on the exact same methodology:

- Establish the key factors of applicable accessibility standards for email and how your brand presents itself within this framework. This should find its way into your brand guidelines
- Train key stakeholders, creatives and campaign delivery teams on the value of achieving maximum accessibility
- Introduce a clear accessibility workflow, incorporating
    - Copywriting
    - Design
    - HTML build
- Revise your existing QA and UAT processes to incorporate a trackable accessibility checklist for all business and consumer-facing email output
- Apply available tools to simulate your emails' compatibility with assistive technology (i.e. screen readers, magnifiers, joysticks and eye-tracking devices)
- Be transparent about your ambition to constantly improve on inclusivity, and invite audiences to feedback on your accessibility standards

Acknowledging the Spectrum of Human Diversity

Working with a focus on device compatibility and responsive design already brings us a few steps closer towards achieving accessibility.

For decades, web and email developers have been planning and testing campaigns with cross-compatibility in mind to overcome limitations of diverse technology: screen sizes, email client versions, operating systems and internet speeds.

In addition, experts in UX (user experience) have been working wonders to lift email marketing into a place of interactivity and offer inspiring personalised splash pages with story-telling potential.

Creative Framework

Device compatibility

User experience

Accessibility

Accessibility, therefore, makes the third vital ingredient of the creative framework that underpins the conception of a successful email campaign. It deals with the human being.
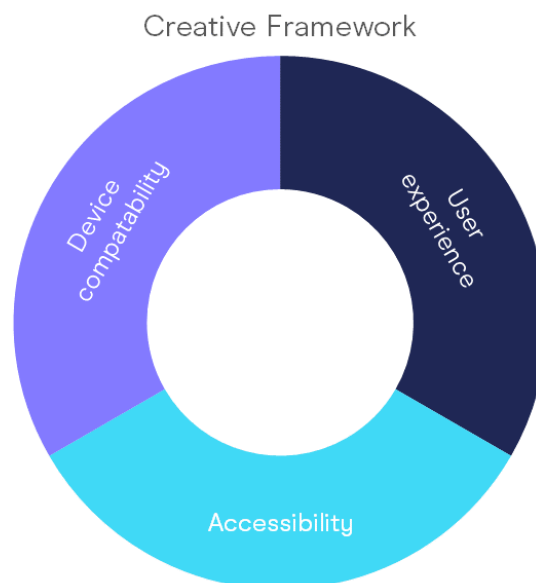
Benefits to your brand's reputation

In recent years, the concept of an inclusive experience has steadily gained momentum across all industries and, in particular, has affected the marketing sector and digital marketing.

A brand that shows heightened awareness of the approximately 80 million people in Europe and one billion people worldwide who are living with some form of disability, and takes them seriously as customers, can expect long-term benefits in positive emotional acceptance and reputation amongst all its customers.

An ethically sound approach that is reflected in a brand's policies, visual appearance, tone of voice, customer service, and direct communications by email has a measurable impact on consumer acceptance and loyalty.

And doesn't it make sense that a personalised email campaign showing respect for the diversity of human characteristics enhances the potential for a deeper connection with a product or brand?

/ How It Works: Accessible Design and Key Things to Consider When Making Campaigns Accessible

Email marketing is continually pushing the boundaries of what's possible in the inbox. As a result, amazing emails are sent full of enhancements, beautiful design and witty copy. The content is all the more relevant because personalisation is still riding the wave of popularity. But not everyone is able to enjoy it.

A World Health Organisation (WHO) report showed that 2.2 billion people across the world suffer from a vision impairment. These are people who can't consume emails as originally intended – whether they struggle with the chosen colours, fonts, and design or must improvise with the use of assistive technologies. No doubt they make up a percentage of every mailing list, which is why it's critical to do accessibility right.

Everyone should get equal benefit from their emails. However, it's easier said than done. One of the biggest obstacles email marketers face is a lack of accessibility guidelines. The same rules that apply to websites can't apply to email, because the two are used differently.

Web browsers have standards they follow to display a website, yet email clients do not, and this is why they use different software to render their emails. Microsoft Outlook, for example, uses Word, while Thunderbird, Apple Mail, and other webmail clients use the same rendering engine used for websites.

Even though email clients aren't standardised, it's the responsibility of email marketers to get accessibility right. And to do that, it's important to understand how assistive technologies work.

Why is it important?

In 2019, there was a ruling against Domino's Pizza in America, who were told to make their website and app accessible to blind people. This ruling was welcomed in the UK by the RNIB, who stated that under the Equality Act 2010, all organisations must make sure blind and partially sighted people can use their digital products.

Email and assistive technology

There are many tools out there to help people with vision impairments access their emails. Whether it's specialist third-party software or extra hardware, such as braille readers or electronic pointing devices, every recipient must get the same value from their email.

Screen readers

This software reads out anything normally viewed on display. It picks out any type of content in the same way human eyes might skim content. They read from left to right, then drop down to the next line until they've read the whole email.

Voice, in-built and other assistants

Nowadays we're surrounded by devices with in-built assistants. These are helpful for people with vision impairments as they read out loud. There are also many people without vision impairments who find it convenient to use these assistants whilst completing other tasks.

At the time of writing, Alexa and Cortana can read out the body of the email, as well as allowing recipients to reply to emails. Currently, this feature is only available in America. Siri, meanwhile, reads out a list of subject lines, and Google Assistant shows recently received emails.

What does this mean for email?

It's easy to go with a design because it looks nice or use copy that's short and sweet. Now, it's time to start thinking about functionality.

Image versus live text

Imagine you're somewhere where your internet isn't working properly and you're trying to open an image-heavy email. None of the images are downloading and the email doesn't make sense to you without them, so you delete it. With nothing for their assistive technology to read, a recipient with a vision impairment is likely to do the same. Not only is it a bad user experience, but it's also a missed opportunity.

An email must always make sense without the images. This means making sure all the important information, such as the subject line, headings and the body copy itself, is included in the live text. Furthermore, for any images that do appear, repeat whatever copy is included in the alt text.

Layout and design

As mentioned above, screen readers go from left to right then onto the next line, so where possible the order of the email content must follow suit. This ensures recipients with vision impairments get the content as intended, without causing any confusion.

Here are a few more layout and design tips:

○ Get the colour contrast right - make sure the text colour is easy to read against the background colour

○ Make better descriptions an essential part of your dynamic content

○ Left align any and all large sections of copy (usually defined as two or more lines) to make it easier to read

○ Avoid justified text, if possible. As with centre-aligned copy this can make it difficult for people with dyslexia to read content

○ Make the action areas of emails large enough, so as not to cause issues for someone with motor difficulties

Copy

An email received by someone with a vision impairment will be read differently to the majority of the mailing list. As a result, it's important to be thoughtful when it comes to the copy. Instead of sending someone to a link by saying 'click here', briefly describe the content on the linked web page. For example, 'for more information about accessibility in email, click here.'

If there's more to come in an email, or it's important to draw attention to something that's already occurred, say 'coming up' instead of 'below' and say 'before' instead of 'above'. Phasing out directional copy creates a better customer experience.

Aforementioned, in-built assistants are capable of reading out the subject lines of emails in an inbox. Recipients are given the choice to mark the email as read, archive or delete, so it's important to do a lot of heavy lifting with the subject line. While there's a lot of debate about the different approaches to take with a subject line to boost the open rate, the more informative it is, the better it is for those with vision impairments.

Coding

Code the email in a way that doesn't just make the email look attractive, but makes it read well for assistive technologies. This means taking care with the mark-up and how it's structured, as this plays a huge role in how those technologies 'present' the content. However, it's worth noting it may be presented differently to how it looks.

Another benefit this often leads to is a cleaner code base. This, in turn, cuts down file sizes and saves bandwidth.

Here are a few more coding tips:

- Use tables sparingly, if possible, and try to avoid unnecessary nesting
- If a table is used to present content, remember the email is read from left to right, top to bottom. Don't split up content across different tables, otherwise it won't make sense when read back
- Use semantic code throughout to provide structure for the content
- Provide structure through headings, paragraphs and tags
- Change fixed-sized text to resizable

Dark mode in email

Dark mode is an important consideration when looking at accessibility in email. When done correctly, it can improve the experience for those with photo sensitivity, as well as reduce eye strain.

However, dark mode can also create challenges that we need to overcome. For example, people with astigmatism can suffer from the halation effect, where light text on a dark background can appear blurrier and harder to read.

First let's recap what the email dark mode landscape looks like. Typically there are three things that can happen:

○ The formatting of an email can be fully adapted if the user has dark mode set, using a media query. If you have worked with responsive email, this is a similar concept. The media query, by the way, looks like this: @media (prefers-color-scheme:dark) — although as with all email code, there are nuances, so read up first!

○ With a media query, you have the ability to change colours and formatting of text, and show/hide content based on dark mode preference. This approach is supported by iOS mail apps, Outlook.com webmail and mobile apps and most web browsers (for users viewing in a browser). Find out more about media queries, here.

○ Gmail apps tried automatically optimising email for dark mode, but it did not give the user any control over how their email looked. This can be a challenge and we've seen things like background colour, images and text colour be inverted automatically.

○ Fortunately, there are some design tweaks you can make to minimise this impact. For example, adding a semi-transparent layer behind text so there is enough contrast over light and dark backgrounds.

○ Nothing! For several webmail environments and older email clients, our existing "light" version will be shown no matter what. We should continue to monitor these email clients, so we can add improvements when functionality is added.

Consequently, marketers can take a few approaches:

○ Try to stop dark mode from happening at all – although you should try to avoid this because we want to give users the choice, so they can pick which is best for them.

○ Assume that most people are not using dark mode, but add some improvements to ensure the email is legible for those who do. This might include ensuring text and images remain legible if the background is changed from light to dark.

○ Fully optimise for both light and dark mode, per the user's preference. This is the optimal approach but takes more time and effort to get right.

○ When we look at dark mode in relation to accessibility in email, our considerations should include:

　　○ Where email clients automatically adapt the colours of our email, does this happen in a predictable way? And can we ensure that text has enough contrast with background colours?

　　○ Does the dark mode experience trigger correctly for those who have indicated they want to see it?

　　○ When we test our email for accessibility, do any of the additional considerations that we have made for dark mode impact our accessibility improvements?

　　○ Does any of the improvement that we make for dark mode spill over into light mode and cause accessibility challenges there?

Final thoughts

There is a lot to consider when it comes to making email campaigns accessible. As email marketers, we're so used to creating something that appeals to the human eye, yet it's now more important than ever to remember assistive devices will also be reading content.

Accessibility should no longer be an afterthought, but rather something that needs to be considered from the very beginning of a project. Standardise your approach to accessibility and keep it consistent to make sure all your customers are happy with the content they receive from you.

/ Tools, Technologies or Providers to Look At

HTML & Text versions – what's best for accessibility?

From a technology perspective, the coding of an email is usually composed of two main components: the Text version and HTML version.

Most ESPs (email service providers) will allow you to send either, or both (albeit usually both are sent), although the email client determines what to display, either the Text or the HTML version (usually the HTML version).

As such, to make an email accessible, it needs to be read by a device that interprets the content - often referred to as a screen reader.

Text versions

The main job of a screen reader is to find content that is readable by humans – so it's looking to avoid code as much as possible. If the screen reader only has a text email (plain text with links), this is easier for it to read as it has very little code to navigate and decipher.

You can also predict the flow of content more easily with text emails, predominantly top to bottom, so putting a CTA (call to action) after the content will more likely achieve the desired result of the email message.

It's worth bearing in mind with text emails to keep content as succinct as possible, as this will aid response in the screen reader.

HTML versions

If you don't code the email with HTML versions in mind it will make the life of a screen reader much more difficult, resulting in the message being lost. It is, therefore, important to help make it as easy as possible for the screen reader to find the content.

We still rely on HTML tables to construct the majority of the visual structure of an email. HTML tables are meant for holding tabular data and not, presenting information, images, links, spacing, etc.

The screen reader needs to be helped to navigate the underlying HTML code so it can find the content that is to be converted from a human visual sense to a different human sense i.e. normal sound (voice). The best way to achieve this is to mark structural elements, such as tables, for presentational use only. This is so the screen reader ignores the table holding the content and reads out the actual content instead.

The screen reader has a difficult job on its hands as HTML emails contain a lot of code to deal with (hence text-only emails being far easier to navigate). As has been said for many years, it would be better to remove the reliance on tables completely.

However, doing so would affect many email clients and their ability to display content at its best (including mobile responsiveness and positioning elements in a reliable manner), so tables are here to stay for the foreseeable future.

Tools for checking accessibility

Once we have coded our email, testing it is where the fun begins. To do this across multiple email clients, when combined with layout, styling and content, as well as making sure it's accessible, is not an easy job to balance.

To do this as best as we can, virtual email rendering platforms should be used, such as litmus.com or emailonacid.com. Primarily, these tools address render checking across email clients, quickly and effectively, enabling the coding of the emails to be quality controlled.

These two tools also offer additional tools to provide automated accessibility pre-checking on an email before its deployed, which should be run once the rendering testing is complete. This allows you to make coding tweaks that won't interfere with hard-fought and won rendering issues out of the way.

These tools are even more powerful when used by designers and coders in conjunction. This achieves the most efficient results, as most issues can be removed at the design stage, rather than the coding stage. This is especially true for producing accessible emails.
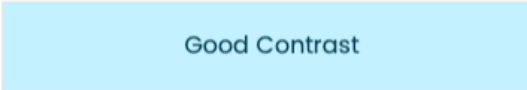
From an accessibility perspective, these virtual rendering tools can highlight some accessibility issues and also automate some code fixes. However, they shouldn't be relied upon to produce an entirely accessible email.

Instead, common sense and physical testing should be performed, ideally with target audiences. Some of the common areas they cover, once you have loaded the email code into them, are these aspects of accessibility:

- **Language:** This is critical for screen readers. It's the language the reader will use to speak in i.e. English or French.

- **Content type:** Setting the content type ensures that every email client and screen reader knows how to interpret the HTML and any special characters it contains. Special characters can include foreign characters or characters specific to certain applications or devices, such as curly quotes in Microsoft Word.

- **Title:** Including a title adds more context to the email when subscribers use a screen reader. This tag also sets a title of the web page tab when viewing the email in a browser.

- **Table roles:** Adding presentation to tables to allow the reader to ignore structural elements and only describe the human readable text.

- **Title attributes:** A title attribute gives more information about elements in the email, such as a tool tip that shows when a user hovers over part of an email. To improve accessibility, you should avoid using title attributes. They will disrupt the order in which screen readers read content. Instead, try to use alt text to describe an element.

- **Alt text:** This allows you to describe images to users with visual impairments; screen readers can read the alt text to give details about the campaign. For images that don't need text, simply add a blank alt attribute to ensure screen readers do not read the image's URL path.

○ **Links:** Links help highlight improvements, such as underlining links for visual impairment. Links should be obvious to the user and stand out.

It's possible to make a link without any visual clue that there is a link present (sometimes this is done for aesthetic or technical reasons, i.e. hiding preheaders), but that's not helpful to see.

Therefore, underlining your link and boldening helps greatly. It's also good practice to show you are respectful and thoughtful with your content to include relevant links.

○ **Fonts:** Font should be a minimum of 14 pixels in size. Avoid using thin font weights, condensed fonts and obscure fonts such as handwriting styles. Line height is helpful to read text and a common rule of thumb in typography helps - a 1.5x the size of the font should be the minimum line height for easier legibility.

○ **Contrast ratio:** This helps highlight poor colour contrast ratios. Web Content Accessibility Guidelines (WCAG) 2.0 recommends a contrast ratio of 4.5:1 between colours for body content and 3:1 ratio for bolded text larger than 18px or 23px for not bolded text.

Example colour contrast:

👎 Bad for accessibility	👍 Good for accessiblity
Bad Contrast	Good Contrast
Contrast Ratio: 1.19 : 1	Contrast Ratio: 4.71 : 1
Bad Contrast	Good Contrast
Contrast Ratio: 2.39 : 1	Contrast Ratio: 9.46 : 1
Bad Contrast	Good Contrast
Contrast Ratio: 4.22 : 1	Contrast Ratio: 15.04 : 1

Source: Email on Acid

/ Conclusion

Producing a good-quality email is a fine balance between psychology, marketing, design, user experience, coding and accessibility. It's certainly not a simple task, and in the real world compromises have to be made, but accessibility should not be one of them. At the end of the day, an email's job is to deliver a single message to a human.

As you can see from the rich and detailed advice offered above, accessibility is not a simple topic. Also, as it's a legal matter, we thought a mention of the implications there might be helpful too.

So let's wrap up by summarising current frameworks used today to help people achieve realistic and desirable accessibility plans.

'Accessibility' is defined as 'the quality of being easy to obtain or use." (Oxford English Dictionary) and has its roots in the Latin word 'accessus,' meaning 'an entrance' or 'an approach.' Beyond that, its meaning for businesses dates back to equality laws, which in some countries in 1980s/1990s extended to computer interfaces, and has been updated ever since.

Beyond the letter of the law comes individual ethics where we want to give equality of opportunity, whenever we are able to. Guided by law and personal ethics we want to aspire to do the most we can, and ensure we do more than the minimum as understood by law.

Legal systems differ by country and in UK case law the nuances, and our understanding of them, are updated every time a judge records a new and relevant legal verdict. Wider EU law operates somewhat differently, but we'll leave the legal experts, which we are not, to explain the differences in more detail.

No matter where you reside, the advice to businesses around relevant laws is usually summarised simply as:

1. Try to understand the law so that you are clear on what is required to be addressed by your company (industry bodies often help us here, e.g. ICO for GDPR)
2. Identify action plans to address those legal issues that your legal advisers have deduced as 'probably essential'
3. Identify the resources required and ensure they are commensurate with your business size
4. Take a risk-balanced approach where periodic risk reviews identify big vs small risks and apply realistic resources accordingly
5. Ensure company staff are suitably aware, trained and reminded at a realistic cadence

On a practice level, the staff handbook, should one exist, or similar company policy documents is a good place to store plans and evidential records of completion for future audits should those ever become necessary.

/ References

Email building tools:

- [Litmus: Accessible email made easy](#)
- [Email on Acid: How do I use the campaign precheck accessibility check?](#)

Screen readers:

- JAWS from Freedom Scientific
- NVDA from NV Access
- Window-Eyes from GW Micro, Inc.
- VoiceOver on Apple devices
- Narrator on Windows devices
- TalkBack on Android devices

Technical code checkers:

- www.accessible-email.org/
- www.emailonacid.com/
- www.litmus.com

Design & Contrast tools:

- www.a11yproject.com/
- www.contrastchecker.com/
- www.coolors.co/contrast-checker/
- www.webaim.org/resources/contrastchecker/

Other useful links:

- https://cm.engineering/how-to-test-accessibility-of-emails-b68fed03f5f4

/ Acknowledgements

Authored by the members and contributors to the DMA Email Council Best Practice Hub:

- Ben Barton, Altaire
- Daniel Lack, Growth Track
- Elliot Ross, Taxi for Email
- Maurice Flynn, BreatheAgency.com
- Nadja von Massow, Nad.works
- Chris Barnett, 1973 Ltd.

/ About the DMA

The Data & Marketing Association (DMA) comprises the DMA, Institute of Data & Marketing (IDM) and DMA Talent.

We seek to guide and inspire industry leaders; to advance careers; and to nurture the next generation of aspiring marketers.

We champion the way things should done, through a rich fusion of technology, diverse talent, creativity, insight – underpinned by our customer-focused principles.

We set the standards marketers must meet in order to thrive, representing over 1,000 members drawn from the UK's data and marketing landscape.

By working responsibly, sustainably and creatively, together we will drive the data and marketing industry forward to meet the needs of people today and tomorrow.

www.dma.org.uk

/ Copyright and Disclaimer