



**Inclusion &
Accessibility
Labs**

Northern Irish Digital Accessibility Index

2022

for ForSight NI

ForSight



Inclusion & Accessibility Labs DAC

Registered in Ireland No. 693460 | +353 (1) 882 1922 | www.ialabs.ie

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Introduction from the Chief Executive Officer of ForSight NI



Figure 1: Chris White, ForSight NI Chief Executive Officer

ForSight NI commissioned this ground-breaking report on developing and adopting digital accessibility in Northern Ireland. This report highlights how far we have come in a short period of time and the distance we need to go to ensure accessibility digitally.

As of December 2022, 100% of government departments have accessible websites that are compliant with the international Web Content Accessibility Guidelines (WCAG) 2.1 AA standard. That is a massive

improvement from where we were five years ago. However, Northern Ireland can and needs to continue to improve further and be a standard bearer for digital accessibility in the UK. We should also not hide from the fact that significant improvements are still required.

The for-profit sector has also embraced digital accessibility, with 30% of Northern Ireland's top employers having made attempts at making their websites accessible, despite no legal requirement to do so. This figure needs to be higher.

Digital accessibility is crucial for creating a truly inclusive world for everyone, especially since today's world is ever more reliant on the internet. That reliance is linked to remote working. Thus, digital accessibility can be a massive step forward in providing greater employment opportunities for people with disabilities.

Nevertheless, although digital accessibility offers people with disabilities the opportunity of equal access to employment, online education, online healthcare, remote work, e-commerce, digital leisure and entertainment, the individual websites run by the related companies, agencies and charities often do not fully facilitate their needs.

Simply put, we believe the world, be it online or offline, will be a better place when people of all abilities are able to participate in and access it. We believe digital accessibility is necessary for creating that world and that Northern Ireland can be at the forefront of the digital accessibility revolution.

What is digital accessibility?

Digital accessibility refers to a situation when a website, an app or any digital experience is accessible to all possible users regardless of their abilities.

For example, if a person cannot access the content of a web page because they cannot use a mouse to hover and click on a link, that page is inaccessible. However, if that same web page offers other ways to consume the content — perhaps the ability to press a key to sift through and click the links without a mouse — it becomes more accessible.

Overall, accessibility is a spectrum. Users have many varying needs and preferences when it comes to using digital products, so there is no one-size-fits-all accessibility definition. Nonetheless, best practices for web developers have been established and are regularly updated.

What is the legislation?

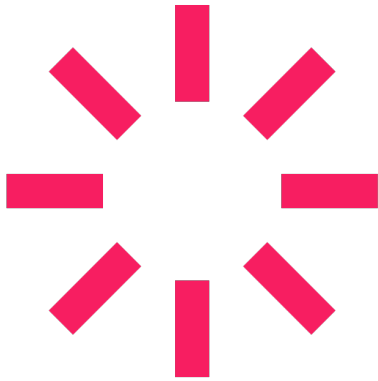
The Public Sector Bodies (Websites and Mobile Applications) (No. 2) Accessibility Regulations have been in force since 2018 and require all websites and applications of public sector bodies to meet specific accessibility standards; exceptions include public broadcasters and live streaming.

The Regulations require

- An accessibility statement for each website and mobile application.
- A feedback mechanism so users can flag accessibility problems or request information published as non-accessible content.
- Regular monitoring of public sector websites and applications by the Minister for the Cabinet Office as well as reporting on the results.

As mentioned, the public sector is already obliged to adopt accessibility measures; internationally, any company wishing to sell or operate in jurisdictions such as the United States of America will have to conform with their accessibility legislation (Americans with Disabilities Act [1]) so they will soon have to implement them as well. This leads us to the conclusion that sooner or later we all will have to develop and provide services and products with inclusive design in mind.

Why is accessibility important?



One in five people in Northern Ireland has some type of disability according to the Department for Communities. Further research from the Northern Ireland Statistics and Research Agency (NISRA) goes on to say that 21.7% of people of working age in Northern Ireland have a disability, and that number would be higher if children and the retired were included [2].

If we don't work diligently to improve digital accessibility, we risk blocking a significant part of society from participating in everyday activities, including tasks such as taking classes online, keeping in contact with friends and family through social media or accessing important information about their own healthcare or financial management.

Simply put, digital accessibility is important since numerous people rely on the web for critical day-to-day activities.

Where does digital accessibility show up?

It's easy to think of digital accessibility as something that exists just on websites and mobile apps. In reality, it pops up everywhere.

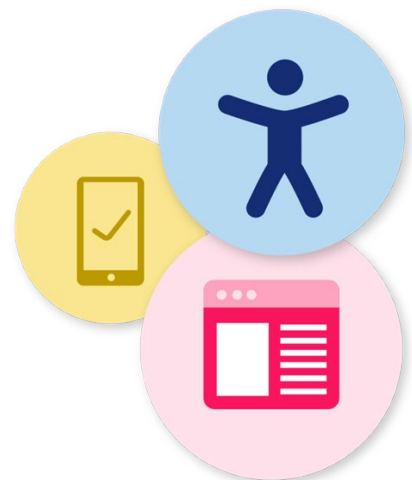
Digital accessibility also helps people who are not disabled. For instance, if you have ever enlarged the text on your smartphone, you have enjoyed the fruits of digital accessibility.

Basically, if it's digital, it should be accessible.

Digital accessibility is a huge boost for business

According to Purple, a user-led disability organisation which provides a range of support for disabled people, businesses lost approximately £2 billion a month by ignoring the needs of disabled people. It goes on to say the online spending power of disabled people is estimated at over £16 billion. It adds that 73% of potential disabled customers experienced barriers on more than a quarter of the websites they visited [3].

There are 135 million people living with disabilities in Europe and 375,000 in Northern Ireland alone [4]. Those 375,000 people with

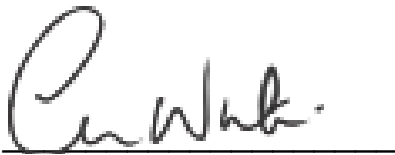


disabilities have significant spending power but given many websites trade within multiple jurisdictions, it should be noted the spending power is so much higher. In the US, for example, people with disabilities of working age control nearly \$500 billion (£414.5 billion) worth of disposable income [5]. Those people are much more likely to spend their hard-earned money on businesses with easily accessible platforms. The same is true in Northern Ireland and the rest of the UK.

It is not just consumers with disabilities either. A total of 70% of millennials actively consider a company's valued when making a purchase.

Therefore, digital accessibility is not only good for the world but makes a business smart, thereby benefiting it.

ForSight NI and Inclusion and Accessibility (IA) Labs will continue to review the progress Northern Ireland Inc is making on its journey to full digital inclusion and will publish this Digital Accessibility Index annually.

A handwritten signature in black ink, appearing to read 'Chris White', is positioned above a solid horizontal line.

Chris White

Chief Executive Officer

ForSight NI

Introduction to IA Labs

IA Labs was established in 2021 with the aim of pushing digital inclusion and accessibility all across Ireland.

Developed under the umbrella of the National Council for the Blind of Ireland (NCBI), the staff of IA Labs have training and experience in the various ways the internet has failed to consider people with disabilities as well as the ways it can improve. They specialise in auditing websites, mobile applications, and digital documents against the WCAG and providing useful feedback on fixing issues. A completed audit done by IA Labs is a guarantee that a website or an app is an inclusive space for everyone and can be used regardless of a person's disability.

IA Labs believes wholeheartedly in giving people equal access to the digital world and all the opportunities it provides. With this report, IA Labs hopes to highlight how important it is for Northern Ireland to continue to strive towards full digital accessibility.

The IA Labs Team

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Abstract

The purpose of this document is to showcase how accessible the technological world is for someone with disabilities in Northern Ireland. It has eight sections: the digital accessibility of (i) Northern Ireland's top employers, (ii) government departments, (iii) local authorities, (iv) housing associations, (v) primary and secondary schools, (vi) health and social care trusts, (vii) state agencies, and (viii) utilities.

The websites included in this report have been tested for their compatibility with Job Access With Speech (JAWS) and Non-Visual Desktop Access (NVDA) screen readers. Screen readers are text-to-speech engines that translate information on webpages and applications to speech output. They are one of the main technologies used by people with disabilities, particularly allowing users who are blind or have visual impairments to navigate the internet.

Websites audited for this report have been tested against the WCAG 2.1 AA standard, which is the most up-to-date version of the Web Content Accessibility Guidelines. These have been named by the United Kingdom as the accessibility standard that should be followed by all public sector bodies [6].

The websites have also been checked against Google Lighthouse, an automated accessibility auditing tool. The results of Google Lighthouse tests have been compared to manual IA Labs testing to discern whether the tool can find as many issues as an expert accessibility tester.

This report has been designed according to NCBI and ForSight NI's clear print guidelines.

Assumptions

It has been assumed that the people using the websites audited in this report have received basic training in screen readers and assistive technologies.

Only a section of each website was tested since this was deemed sufficient in making comparisons with Google Lighthouse and in determining whether a website was accessible or not. The section tested always included the navigation menu, header, home page, and footer in order to adhere to a standard testing procedure across the websites and allow a fair comparison to be drawn. Tests were carried out in accordance with the WCAG 2.1 standard.

Every website in this report has been allocated a pass or fail mark based on how accessible it is. The passing criterion was that a user with a disability should be able to access every part of the section tested. In this scenario, a 'pass' does not mean that a website is perfectly accessible, but that it is usable. If a website failed, it did so on two factors. It was either completely inaccessible to someone using only a keyboard or a lack of contextual labelling made it impossible for a user to interact with it.

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Executive Summary

This special report was compiled by ForSight NI, who commissioned Inclusion and Accessibility (IA) Labs to undertake the work. IA Labs is an entity under the umbrella of the National Council for the Blind of Ireland.

The report compares and contrasts some of the highest-profile private and public sector websites in Northern Ireland, revealing how accessible they are to those living with disabilities. This could be a person who is blind, has impaired vision, decreased dexterity, or hearing difficulties, but it is not limited to the latter disabilities.

IA Labs audits digital systems against the WCAG, the Web Content Accessibility Guidelines. They then provide useful feedback on fixing issues in ways that adhere to the WCAG 2.1 AA standard.

From health services to schools and the province's top-performing businesses, this report commissioned by ForSight NI lays bare the work that is being done, but more importantly what still must be done by organisations to improve accessibility online.

Without digital accessibility, organisations risk blocking a significant part of society from participating in everyday digital activities such as taking classes online, shopping, keeping in contact with friends and family through social media, or accessing important information about their own healthcare or financial management.

This report also highlights the specific difficulties that people with disabilities face every day when accessing technology, including confusing carousels of content, images without text descriptions, missing descriptive links, and more.

It outlines the specific parts of websites that are not compatible with assistive technology, and therefore excludes the user with a disability from accessing and digesting information online.

To quantify the impact digital inclusion could have on our society, one in five people in Northern Ireland are living with a disability according to the Department for Communities. That amounts to approximately 336,000 people.

It is clear from this report that whether firms or organisations are bound by legislation to offer a digitally accessible service, many fail to do so, and even those who have passed IA Labs' audits still have discrepancies that pose challenges for users with disabilities.

ForSight NI commissioned this report to educate and guide businesses and public sector bodies on their journey to create an accessible digital future that nurtures societal equality and also benefits businesses.

Key Findings

Among the important findings in this report was that of all sectors covered, only one sector — government department websites, which do have to meet WCAG standards — has a 100% audit pass rate.

Although all nine departments passed the IA Labs audit, this doesn't necessarily mean the websites were free from accessibility issues. The nine departments had several issues each, with the Department for the Economy performing best.

The private sector fared worst in the report: of Northern Ireland's top 10 businesses, just three passed IA Labs' accessibility audit.

Moy Park, which is Northern Ireland's second largest employer, had 41 issues. While not legally obliged to meet accessibility standards, these private firms' performances in terms of digital accessibility were well below par given their turnovers, global reach, and customer base.

Meanwhile of Northern Ireland's 11 local authorities (councils), just nine passed the audit, despite an obligation to meet the accessibility standards outlined in the Public Sector Bodies Accessibility Regulations 2018. The two authorities that did not attain the standard were Derry City and Strabane District and Newry, Mourne and Down District. The best performer was Lisburn and Castlereagh City Council with zero accessibility issues.

Northern Ireland's housing organisations also fell short of the standards, with only one (Clanmil Housing) of five passing the audit. Highlighting the importance of this shortfall in this sector, the report reads: "The ability to look for housing options online is as important as being given equal access to housing in the first place."

In education, of the small section of schools that were assessed within the primary and secondary levels, five out of 12 secondary schools and four out of 12 primary schools passed an accessibility audit.

Five of our six health and social care trusts passed IA's accessibility review.

Meanwhile of our four state agencies including the likes of Libraries NI and the NI Housing Executive, only one agency — NI Housing Executive — passed IA Labs' application of the WCAG 2.1 AA standard. Libraries NI and Invest NI surprisingly had the most accessibility issues.

The final element of the report showed that out of our three utility providers — Northern Ireland Water, NIE Networks and SSE — just NIE Networks passed the IA Labs accessibility review. This is despite Northern Ireland Water being government-owned, which means it falls under the Public Sector Bodies Accessibility Regulations 2018.

A full breakdown of the findings can be found within this report, alongside findings from Google Lighthouse, which is an automated tool used for improving the quality of web pages. It should be noted that IA Labs' audit process is a more manual and comprehensive inspection.

ForSight NI wishes to assert its commitment to a digitally inclusive society thereby ensuring equity and accessibility to critical information.



**Inclusion &
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Northern Ireland's Top Employers



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Northern Ireland's Top Employers

The first section of the report focuses on Northern Ireland's 10 largest employers according to the Belfast Telegraph [7]. Over 3% of Northern Ireland's working population are employed in the below-mentioned companies.

A section of each company's website was tested for accessibility; the exact section is detailed in the Assumptions of this document.

Although none of these websites are run by public sector companies and therefore are not required to meet the WCAG 2.1 AA standard, it is very likely that the 2018 Regulations will expand to include private sector bodies in the future.



The top 10 employers are listed as follows:

- Tesco
- Moy Park
- ASDA
- Spirit AeroSystems
- Four Seasons
- Henderson Group
- Teleperformance
- BT
- Marks & Spencer
- Almac

Accessibility Review: Pass or Fail

Out of the 10 companies, three (30%) passed an IA Labs accessibility review: ASDA, Spirit AeroSystems, and BT. The average number of accessibility problems found across the top employers was 24, with the most common issues including:

- Carousels of content that move automatically
- Images missing alt text descriptions
- Links missing descriptive labels
- Focus and reading order issues
- Low colour contrast
- Many infographics or images of text

Figure 2 below shows the total number of accessibility issues found on the homepage of each employer website.

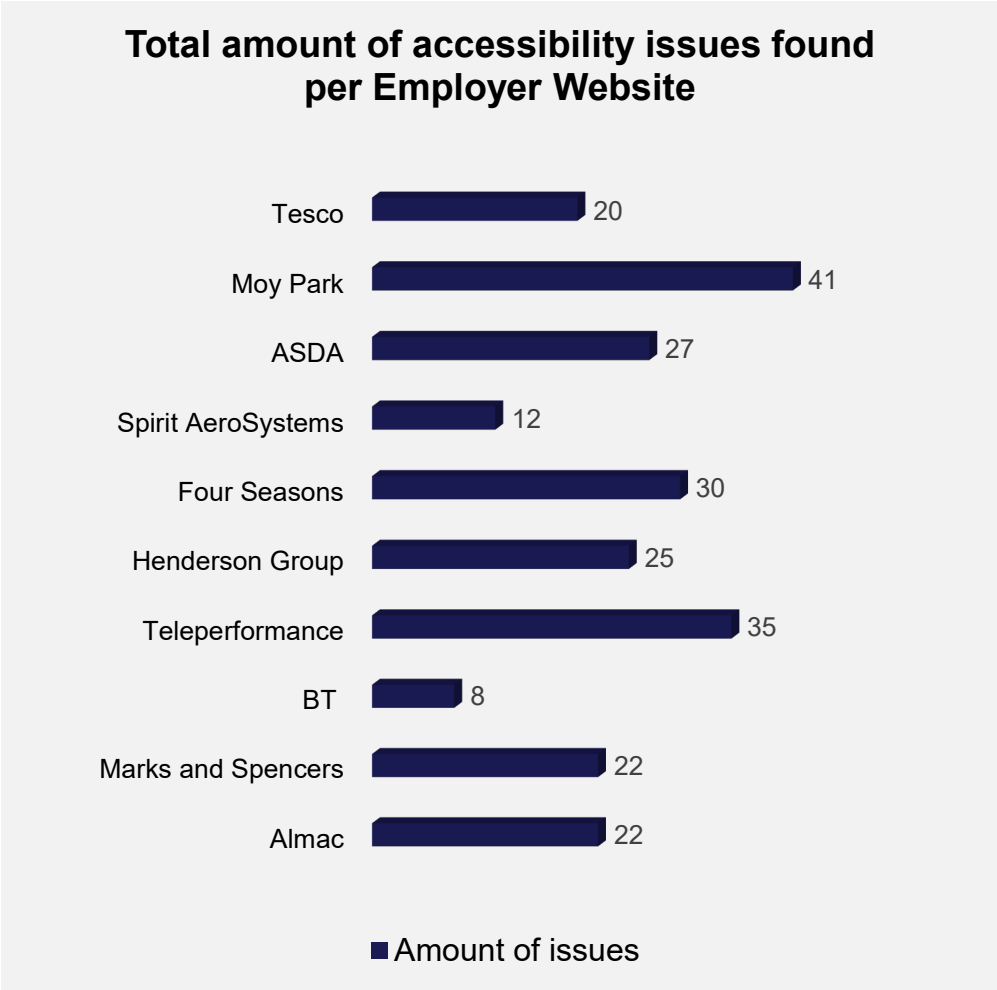


Figure 2: Total Amount of Accessibility Issues Found per Top Employer

Accessibility Statement

- Four (40%) had no accessibility statement on their site
- Three (30%) had a statement but referenced an outdated standard or no standard at all (Moy Park, Henderson Group, Marks & Spencer)
- Three (30%) referenced the current WCAG 2.1 standard (Tesco, Spirit AeroSystems, BT)

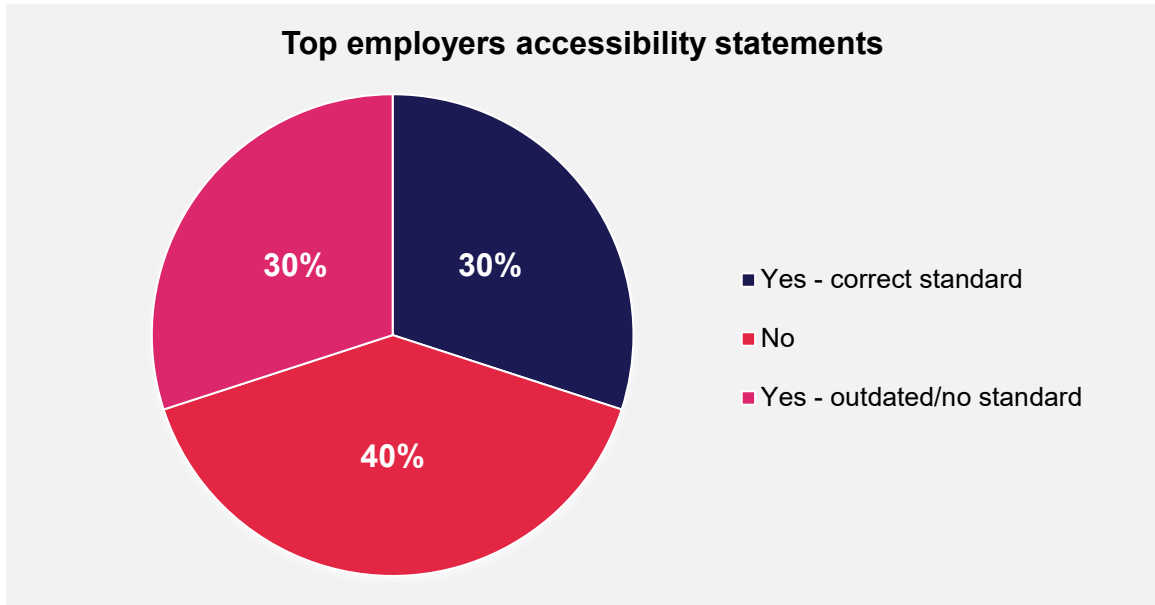


Figure 3: Top Employers Accessibility Statements

Google Lighthouse vs IA Labs

Google Lighthouse found a total of 149 issues across Northern Ireland’s largest employers, compared to a total of 242 found by IA Labs. IA Labs discovered 62% more issues than Google Lighthouse.

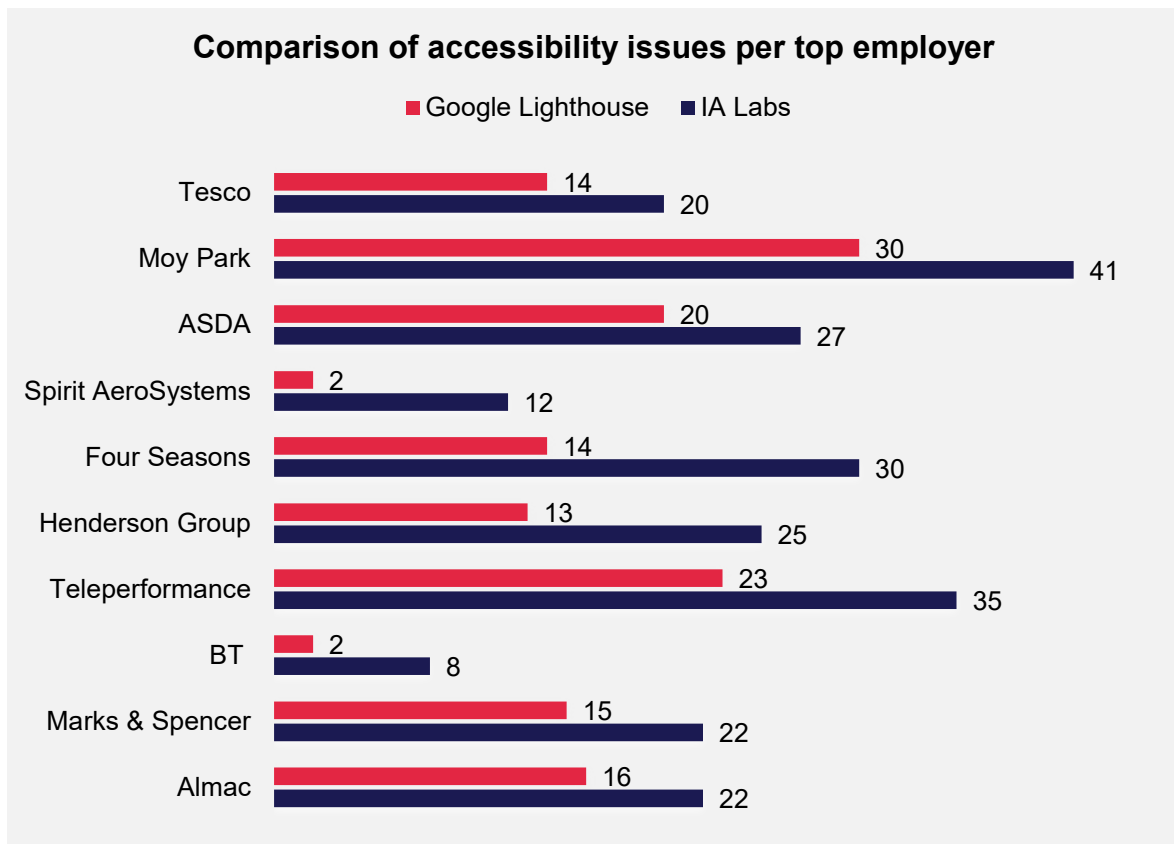


Figure 4: Comparison of Accessibility Issues found by Google Lighthouse vs. IA Labs per Top Employer

Critical User Journeys

The main accessibility issues found on the websites of Northern Ireland's largest employers were to do with carousels and screen reader and keyboard focus. Any content that moves, blinks, or scrolls automatically can disorientate people with disabilities. If there is no way to pause moving content, it can also cause problems with how assistive technologies present a website to users, which makes it more difficult to interact with a site.

Incorrect screen reader or keyboard focus order will also cause problems for people using assistive technologies. These users rely on correct focus order to be able to find the information they need. If websites are missing this, their content becomes harder to navigate and users may miss out on important information entirely.



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Government Departments



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Government Departments

The second section of the report focuses on government department websites. These websites are an important interface between government departments and the wider public, providing valuable information on policy formation, funding, and sectoral interests.



**Northern Ireland
Executive**

Moreover, all of the digital content on these websites must comply with Public Sector Bodies (Websites and Mobile Applications)

(No. 2) Accessibility Regulations 2018. They must meet the WCAG 2.1 AA standard and be accessible to everyone [6].

A total of nine Northern Irish government department websites were tested for accessibility.

The departments are listed as follows:

1. Dept. of the Executive Office
2. Dept. of Agriculture, Environment and Rural Affairs
3. Dept. of Communities
4. Dept. of Education
5. Dept. of Economy
6. Dept. of Finance
7. Dept. of Infrastructure
8. Dept. of Health
9. Dept. of Justice

Accessibility Review: Pass or Fail

The average number of accessibility issues found per government department was five.

Figure 5 below shows the total number of accessibility issues found on the homepage of each department website.

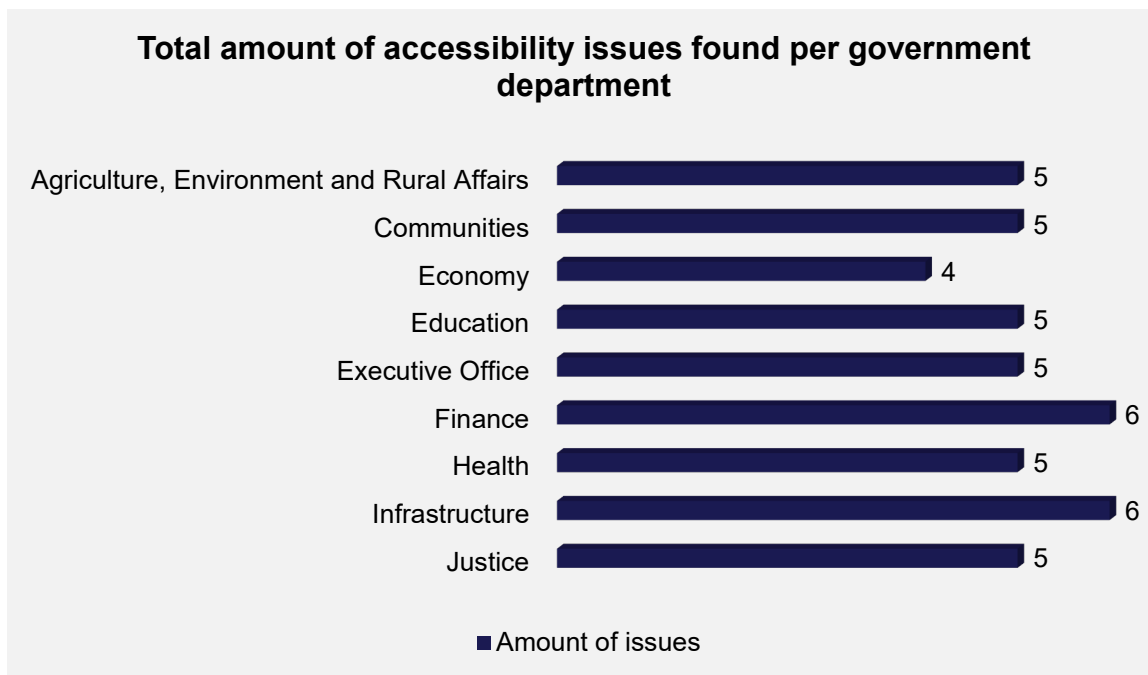


Figure 5: Total Amount of Accessibility Issues Found per Government Department

All nine department websites passed IA Labs' application of the WCAG 2.1 AA standard. Although they each had a few accessibility issues, these issues did not prevent someone with a disability from navigating and interacting with the site.

The websites that were considered overall accessible had the following issues:

- Broken skip to content link
- Low colour contrast ratio

Whilst these issues did not stop users from accessing information, they made the website more difficult to use for people with low vision or colour blindness.

Accessibility Statement

All of the government department websites had an accessibility statement and referenced the correct WCAG 2.1 AA standard.

Google Lighthouse vs IA Labs

Google Lighthouse found a total of eight issues across the nine government department websites, compared to a total of 46 found by IA Labs. IA Labs discovered 475% more issues than Google Lighthouse.

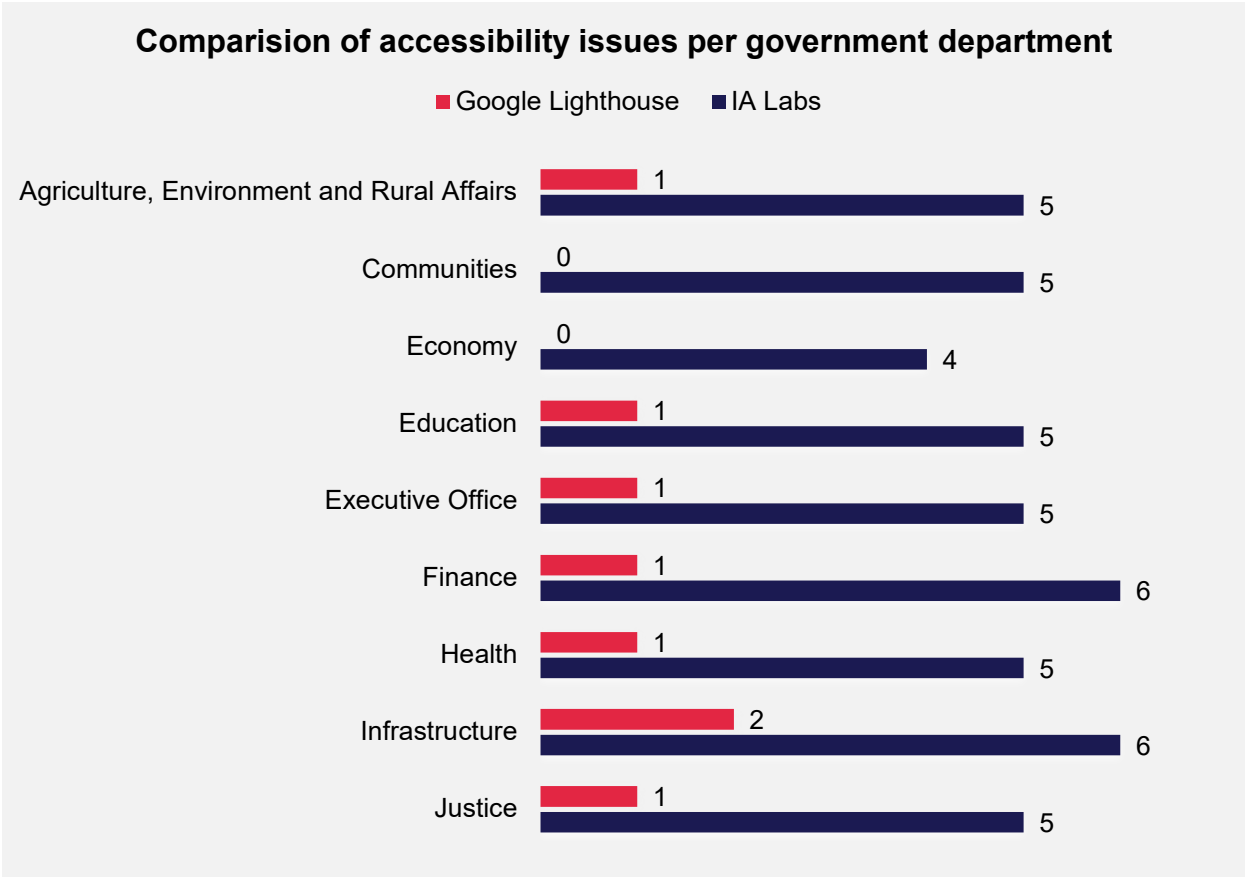


Figure 6: Comparison of Accessibility Issues Found by Google Lighthouse vs. IA Labs per Government Department



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Local Authorities



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Local Authorities

The third section of the report focuses on the websites of the Northern Irish local authorities. These councils are in charge of providing public services and facilities to their respective communities. As public sector bodies, their websites and other digital content must meet the accessibility standards outlined in the Public Sector Bodies Accessibility Regulations 2018 [6].



The 11 local authorities in Northern Ireland are listed as follows:

- Antrim and Newtownabbey Borough Council
- Ards and North Down Borough Council
- Armagh City, Banbridge and Craigavon Borough Council
- Belfast City Council
- Causeway Coast and Glens Borough Council
- Derry City and Strabane District Council
- Fermanagh and Omagh District Council
- Lisburn and Castlereagh City Council
- Mid and East Antrim Borough Council
- Mid Ulster District Council - Dungannon
- Newry, Mourne and Down District Council

Accessibility Review: Pass or Fail

Of the 11 local authorities, nine (82%) passed IA Labs' application of the WCAG 2.1 AA standard. The two that failed were Derry City and Strabane District and Newry, Mourne and Down District. The average number of accessibility issues found across the local authorities was 13, with the most common issues including:

- No skip to content links
- Unlabelled links or buttons
- Links and buttons that need more descriptive labels
- Carousels of content that move automatically
- Low colour contrast

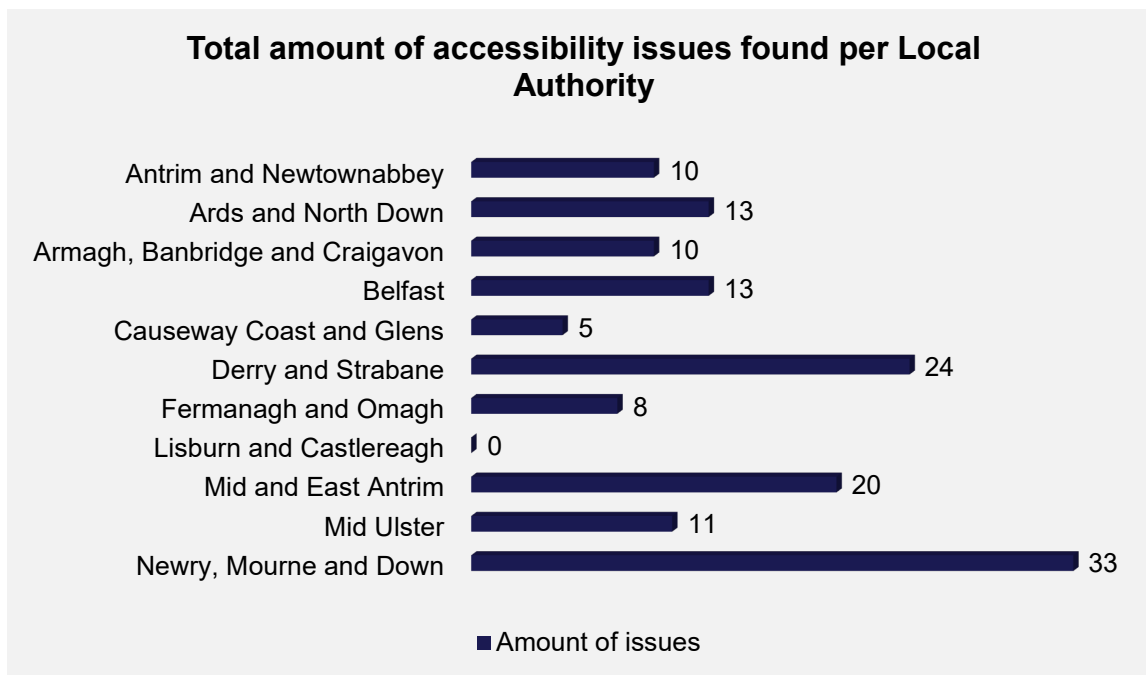


Figure 7: Total Amount of Accessibility Issues Found per Local Authority

Accessibility Statement

- Three (27%) had no accessibility statement on their website
- One (9%) had a statement but did not fully reference the correct standard (Mid and East Antrim)
- Seven (64%) referenced the current WCAG 2.1 standard (Ards and North Down Borough; Armagh City, Banbridge and Craigavon Borough; Belfast City; Causeway Coast and Glens Borough; Fermanagh and Omagh District; Lisburn and Castlereagh City; Mid Ulster District)

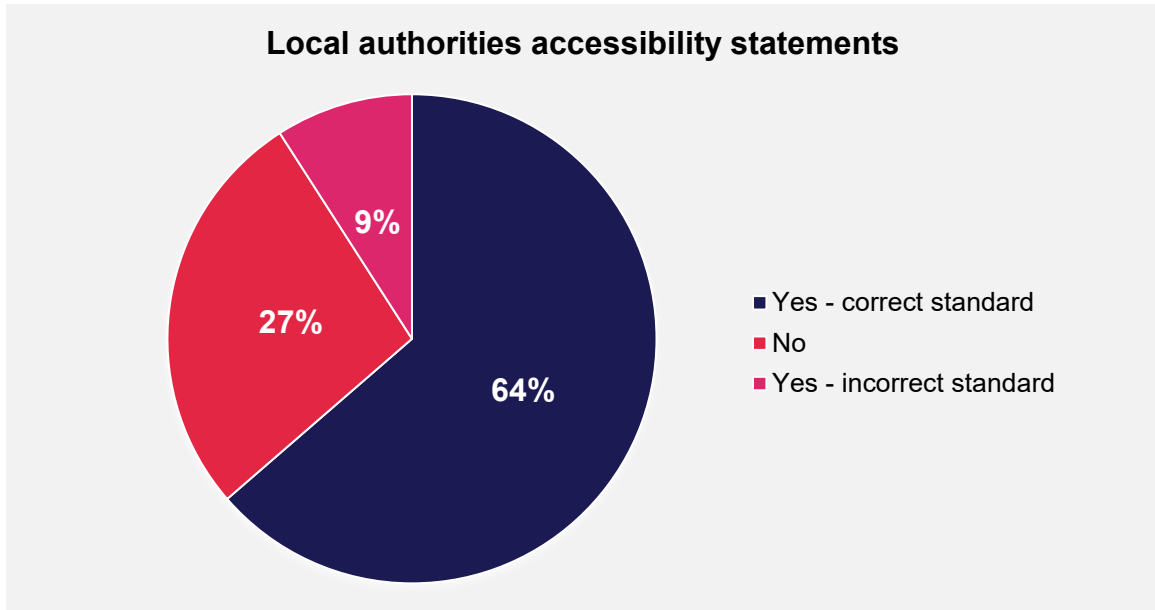


Figure 8: Local Authorities Accessibility Statements

Google Lighthouse vs IA Labs

Google Lighthouse found a total of 56 issues across the local authorities, compared to a total of 147 found by IA Labs. IA Labs discovered 162% more issues than Google Lighthouse.

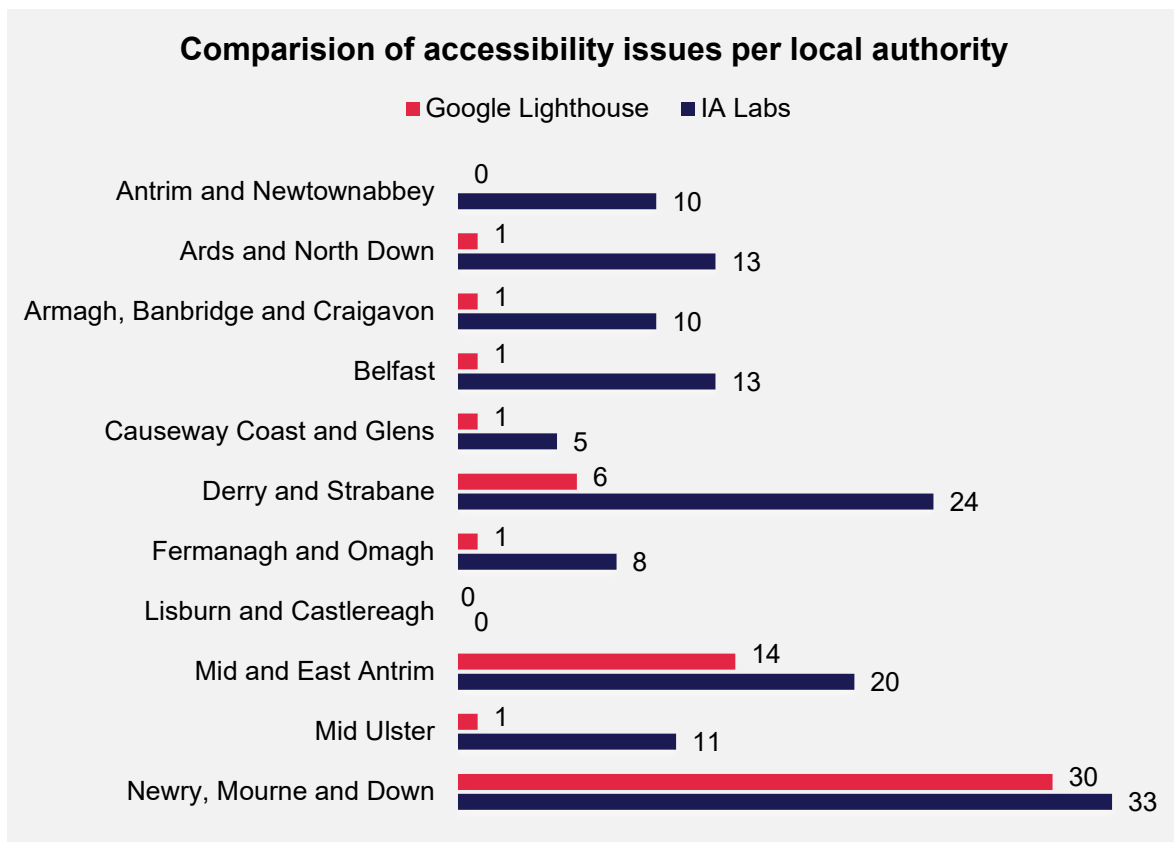


Figure 9: Comparison of Accessibility Issues Found by Google Lighthouse vs. IA Labs per Local Authority

Critical User Journeys

The first major accessibility issue on local authority websites was buttons and links needing more descriptive labels. If interactive elements like these do not have labels that clearly inform users what they do, some people with disabilities might avoid following a link or using a button entirely. Poor labelling can slow them down and make it more difficult to navigate a website.

The second accessibility issue on local authority sites was low colour contrast. If the colour of text is too similar to the colour of its background, people with low vision, colour blindness, or a learning difficulty like dyslexia will struggle to read text.



**Inclusion &
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Housing Associations



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Housing Associations



This section focuses on the websites of the top housing associations in Northern Ireland. The ability to look for housing options online is as important as being given equal access to housing in the first place, and people with disabilities will not be able to make the most of these opportunities if housing websites aren't accessible. The associations running these websites do not yet need to meet the digital accessibility standards outlined in the 2018

Regulations, but it would greatly benefit the people who use them if they did so.

The housing websites audited for this report are as follows:

- Radius Housing
- Co-Ownership
- Choice Housing
- Clanmil Housing
- Apex Housing Association

Accessibility Review: Pass or Fail

Of the five housing associations, only one (20%) passed an IA Labs accessibility review, Clanmil Housing. The average number of accessibility issues found across the housing associations was 36. The most common issues found included:

- Low colour contrast
- Unlabelled links or buttons
- Images missing alt text descriptions
- Images that need more descriptive alt text
- Links or buttons that don't work using only a keyboard
- Carousels of content that move automatically

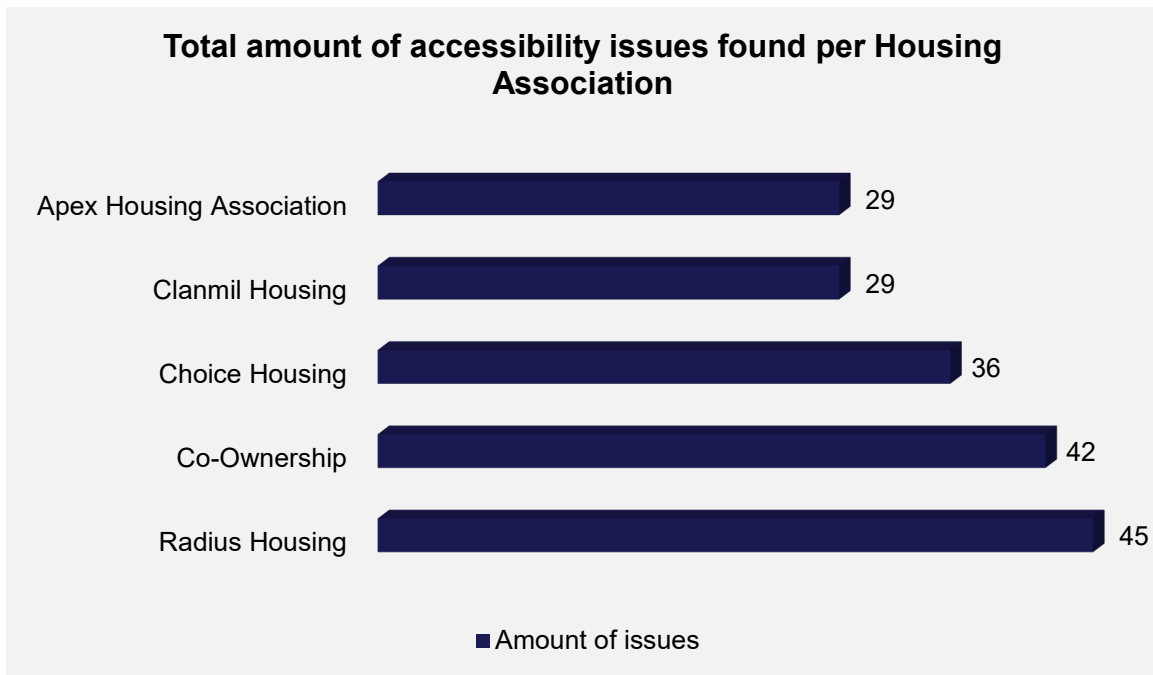


Figure 10: Total Amount of Accessibility Issues Found per Housing Association

Accessibility Statement

- Two (40%) had no accessibility statement on their website
- Three (60%) had a statement but did not reference the correct standard or referenced no standard at all (Co-Ownership, Choice Housing, Apex Housing Association)
- None (0%) had a statement that referenced the current WCAG 2.1 standard

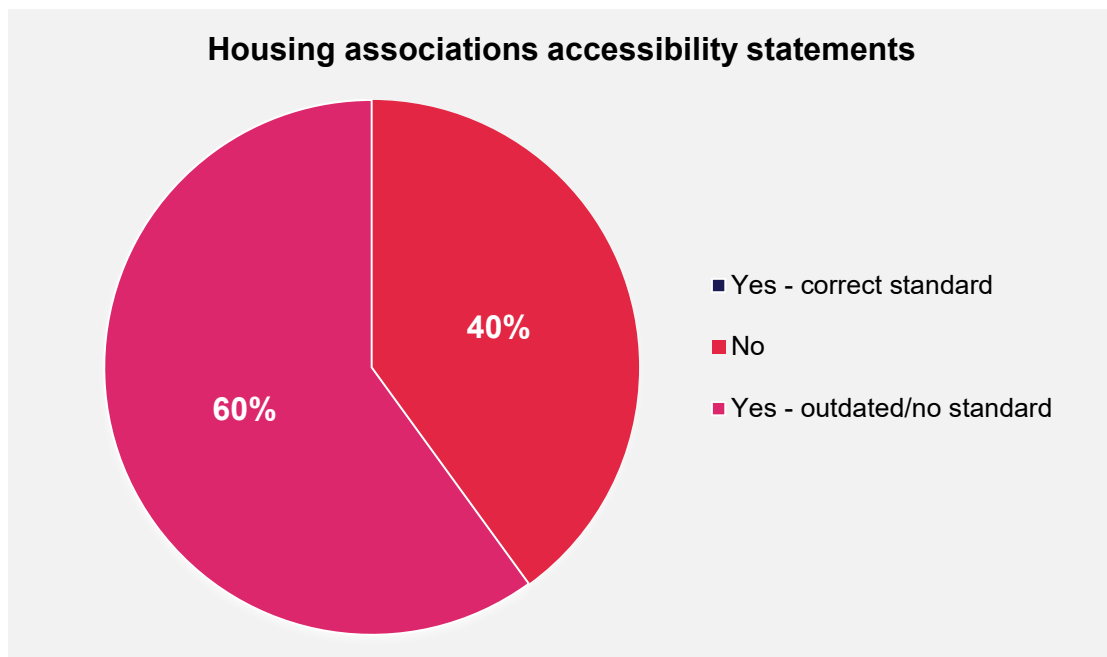


Figure 11: Housing Associations Accessibility Statements

Google Lighthouse vs IA Labs

Google Lighthouse found a total of 110 issues across the local authorities, compared to a total of 181 found by IA Labs. IA Labs discovered 65% more issues than Google Lighthouse.

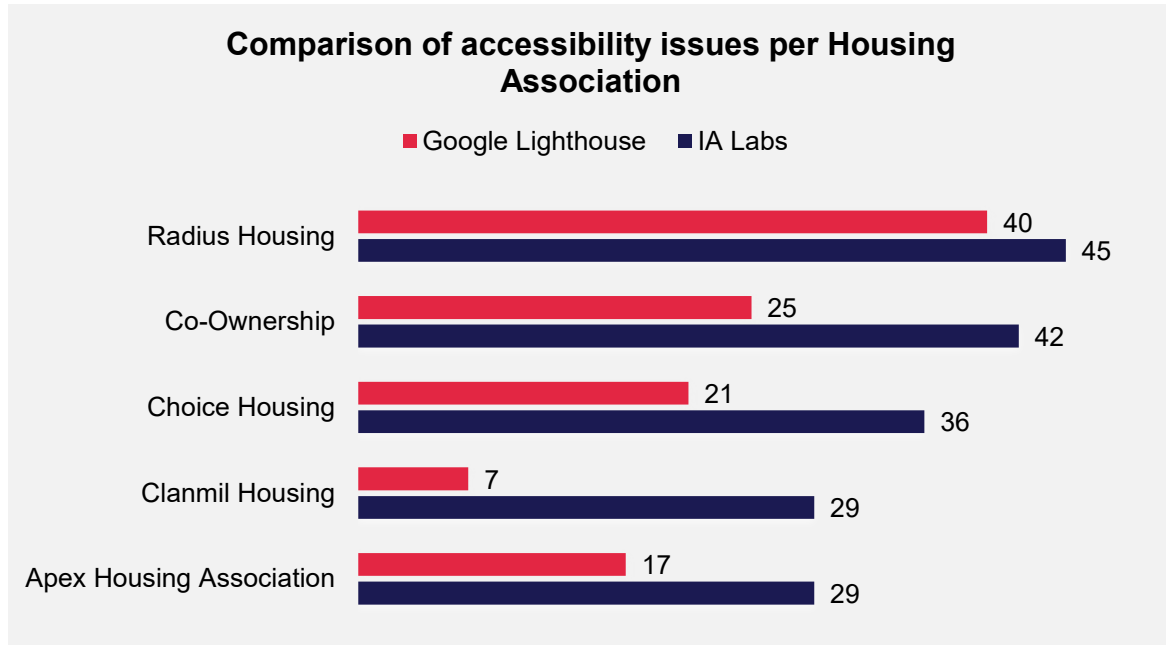


Figure 12: Comparison of Accessibility Issues Found by Google Lighthouse vs. IA Labs per Housing Association

Critical User Journeys

The most critical accessibility problems on housing association sites were to do with keyboard accessibility and image alt text. If a website's links or buttons cannot be activated using a keyboard only, anyone who does not use a standard mouse to browse the website would find it impossible to interact with it.

If images are missing descriptions or have alt text that is incorrect or is not descriptive enough, users who are blind or have visual impairments will be confused and find it difficult to navigate a site. They will not be able to receive the same information from these images as other sighted users without alt text.



**Inclusion &
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Education



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Education

Access to education is a fundamental right for every child in Northern Ireland. Due to the significance of this sector, the accessibility of the websites of two secondary and primary schools from each county was analysed for this report. Schools and nurseries are exempt from the Public Sector Bodies Accessibility Regulations 2018 except for digital content that relates to essential services [6].

The secondary schools:

- Antrim – Friends’ School Lisburn
- Antrim – St Joseph’s College Belfast
- Armagh – Portadown College
- Armagh – St Patrick’s High School
- Derry/Londonderry – Lumen Christi College
- Derry/Londonderry – Rainey Endowed School
- Down – Our Lady and St Patrick’s College, Knock
- Down – Down High School
- Fermanagh – Enniskillen Royal Grammar School
- Fermanagh – St Michael’s College
- Tyrone – Omagh Academy
- Tyrone – Holy Trinity College

The primary schools:

- Antrim – Brownlee Primary School
- Antrim – St Joseph’s Crumlin
- Armagh – Dickson Primary School
- Armagh – Lurgan Model Primary School
- Derry/Londonderry – Damhead Primary School
- Derry/Londonderry – St Anne’s Primary School
- Down – Bridge Integrated Primary School
- Down – St Clare’s Abbey Primary School
- Fermanagh – St Mary’s Tempo
- Fermanagh – Enniskillen Model Primary School
- Tyrone – Edendork Primary School
- Tyrone – Queen Elizabeth II Primary School

Secondary Schools

Accessibility Review: Pass or Fail

Five (42%) out of 12 total secondary schools passed IA Labs' application of the WCAG 2.1 AA standard. These five schools were Our Lady and St Patrick's College Knock, Omagh Academy, St Patrick's High School, Down High School, and St Michael's College. The average number of accessibility issues found across the secondary schools was 32, with the most common issues including:



St. Patrick's High School, Keady

• Many infographics or images of text
• Low colour contrast
• Carousels of content that move automatically
• Images missing alt text descriptions
• Inaccessible videos
• Focus order issues
• Submenus that appear on mouse hover only
• Links or buttons that need more descriptive labels

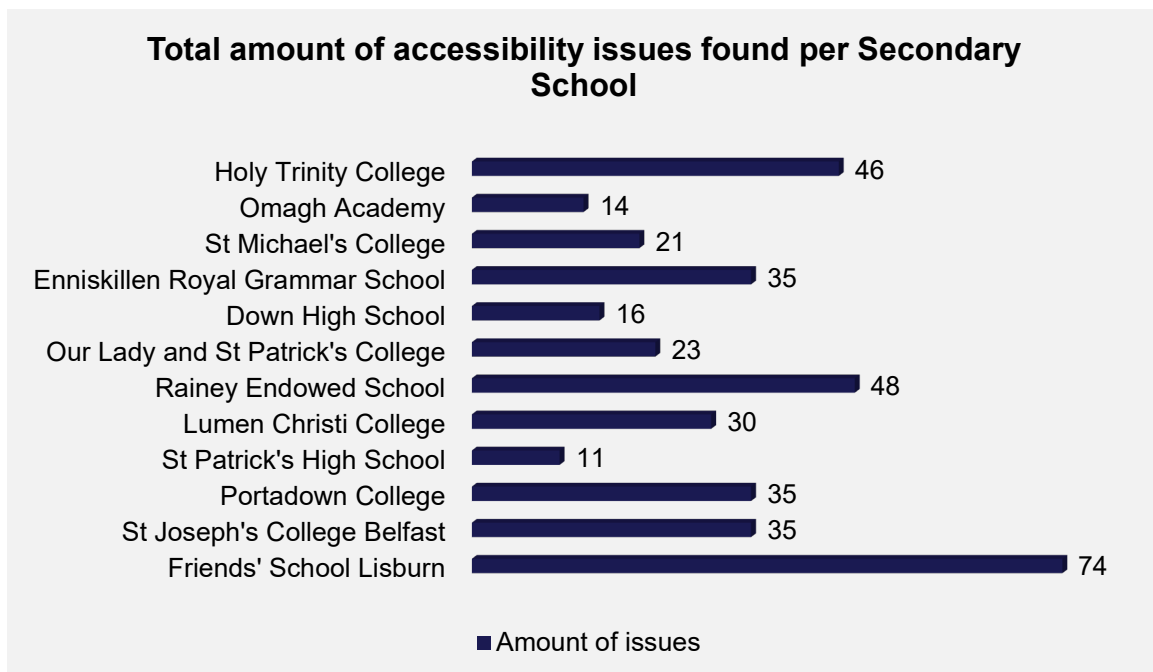


Figure 13: Total Amount of Accessibility Issues Found per Secondary School

Accessibility Statement

None (0%) of the secondary schools audited for this report had an accessibility statement on their website.

Google Lighthouse vs IA Labs

Google Lighthouse found a total of 253 issues across the secondary schools, compared to a total of 388 found by IA Labs. IA Labs discovered 53% more issues than Google Lighthouse.

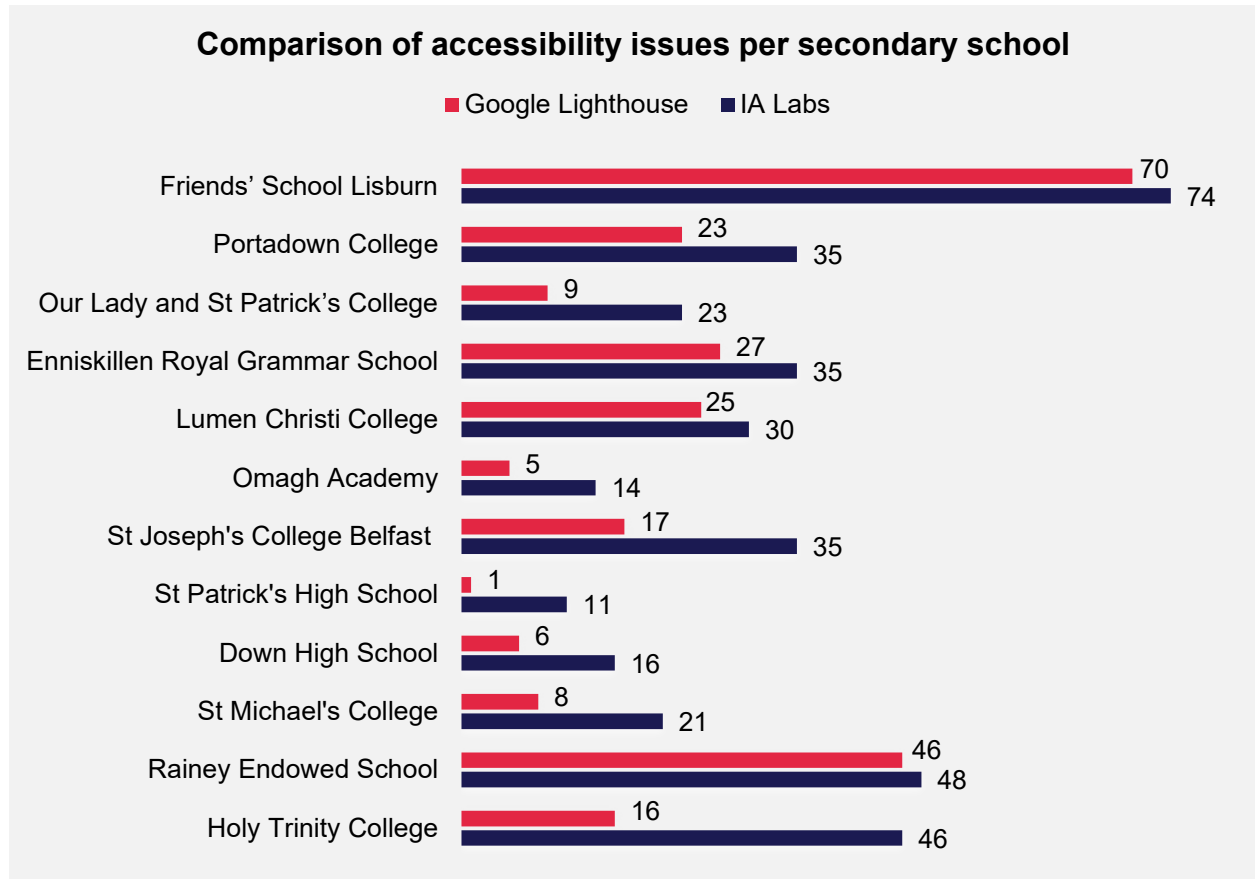


Figure 14: Comparison of Accessibility Issues Found by Google Lighthouse vs. IA Labs per Secondary School

Critical User Journeys

The first and most critical accessibility problem on secondary school websites was the use of images of text or infographics. Unlike regular text, text inside images can't be resized and their colour and font can't be changed. Users with low vision, colour blindness, or learning disabilities who usually customise text to suit their needs will find it difficult to read images of text. Screen readers also can't access text information inside images.

The second accessibility problem on secondary school sites was inaccessible videos. Videos that do not have subtitles block people who are deaf or hard of hearing from accessing information. People who are

blind or have a visual impairment also can't receive information from a video if it does not have audio descriptions or a text transcript.

Primary Schools

Accessibility Review: Pass or Fail

Four (33%) out of 12 total primary schools passed IA Labs' application of the WCAG 2.1 AA standard. These four schools were Damhead Primary, St Anne's Derry, St Mary's Tempo, and Enniskillen Model Primary. The average number of accessibility issues found across the primary schools was 26. The most common accessibility problems that we found included:



- Many infographics or images of text
- Low colour contrast
- Animations that move automatically
- Carousels of content that move automatically
- Images missing alt text descriptions
- Focus order issues
- Submenus that appear on mouse hover only

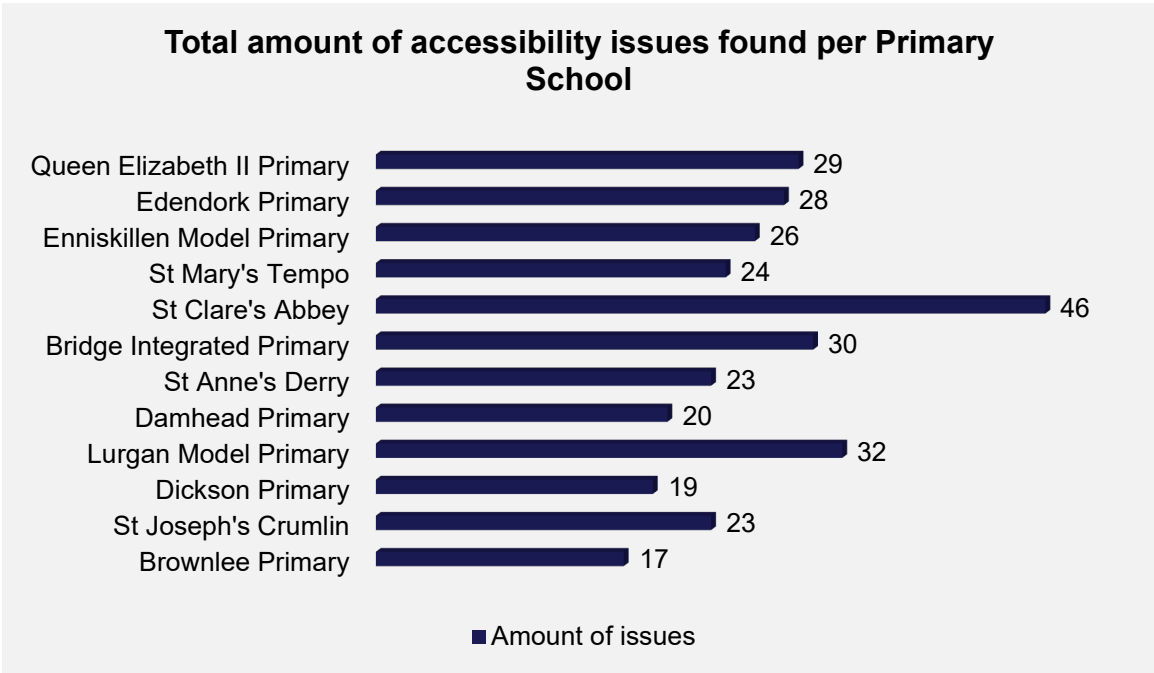


Figure 15: Total Amount of Accessibility Issues Found per Primary School

Accessibility Statement

None (0%) of the primary schools audited for this report had an accessibility statement on their website.

Google Lighthouse vs IA Labs

Google Lighthouse found a total of 159 issues across the primary schools, compared to a total of 317 found by IA Labs. IA Labs discovered 99% more issues than Google Lighthouse.

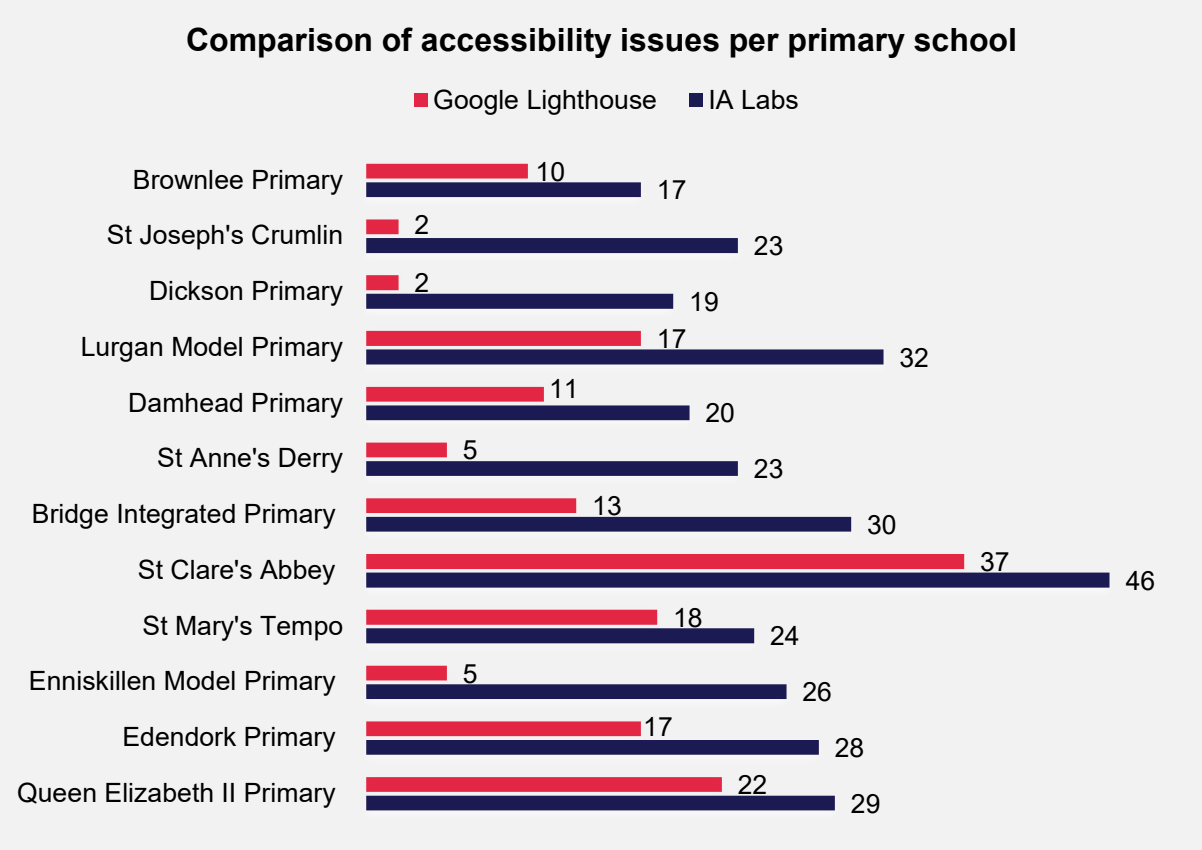


Figure 16: Comparison of Accessibility Issues Found by Google Lighthouse vs. IA Labs per Primary School

Critical User Journeys

Users with low vision, colour blindness, or learning disabilities will struggle to read text that has a low colour contrast ratio against its background, which was an issue many primary school websites had. Another accessibility issue found on these sites was the use of animations. Content that moves, blinks, or scrolls automatically can disorientate people with disabilities or cause problems with assistive technology, therefore making it more difficult to use a website.



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Health and Social Care Trusts



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Health and Social Care Trusts

Similar to the case of education, the healthcare sector plays an important



Northern Health and Social Care Trust

role in society. Being able to access information about the health and social care services these trusts provide is crucial for people with disabilities. There are six health and social care trusts in Northern Ireland, all of which are publicly funded by the Department of Health in the Northern Ireland Executive [8]. This means they are required to have digital content that complies with the Public Sector Bodies Accessibility Regulations 2018 [6].

The health and social care trusts are listed as follows:

- Belfast HSC Trust
- South Eastern HSC Trust
- Western HSC Trust
- Southern HSC Trust
- Northern HSC Trust
- NI Ambulance Service HSC Trust

Accessibility Review: Pass or Fail

Out of the six health and social trusts, five (83%) passed an IA Labs accessibility review: Belfast, South Eastern, Western, Southern, and NI Ambulance Service. Although these still had a number of accessibility issues each, they could be used by people with disabilities. The average number of issues found across the health and social care trusts was 14, with the most common including:

- Low colour contrast
- Focus order issues
- Submenus that appear on mouse hover only
- Carousels of content that move automatically
- Unlabelled links or buttons

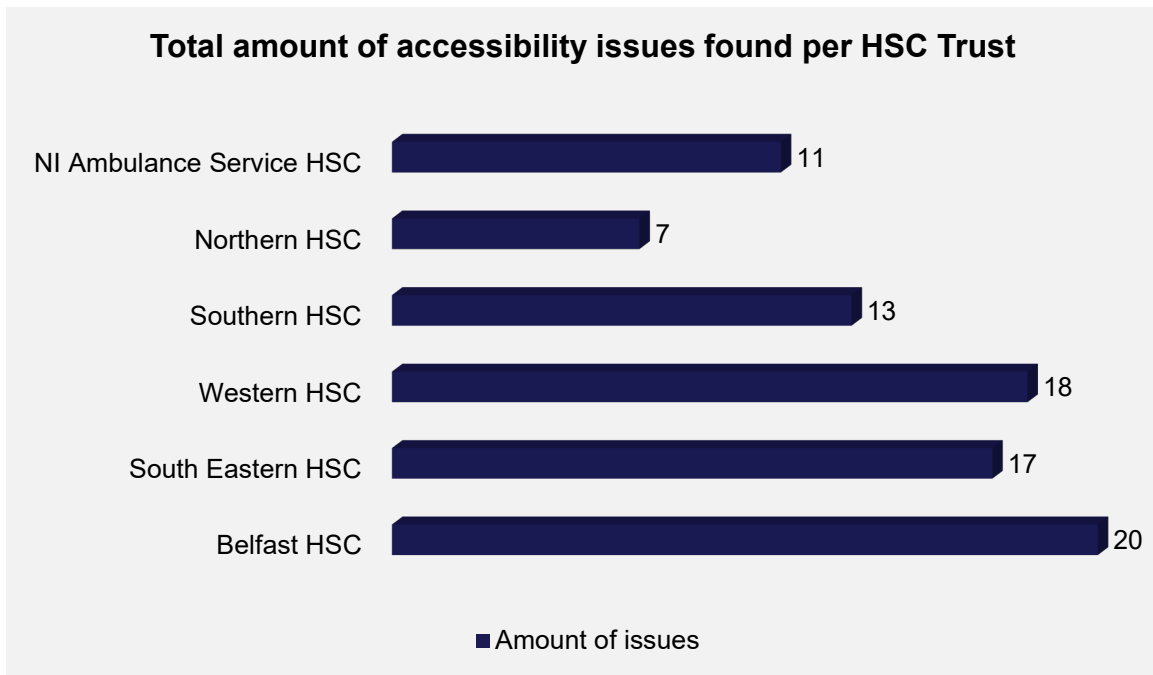


Figure 17: Total Amount of Accessibility Issues Found per Health and Social Care Trust

Accessibility Statement

- Two (33%) had an accessibility statement but did not reference a standard (South Eastern, Southern)
- Four (67%) had a statement that referenced the current WCAG 2.1 standard (Belfast, Western, Northern, NI Ambulance Service)

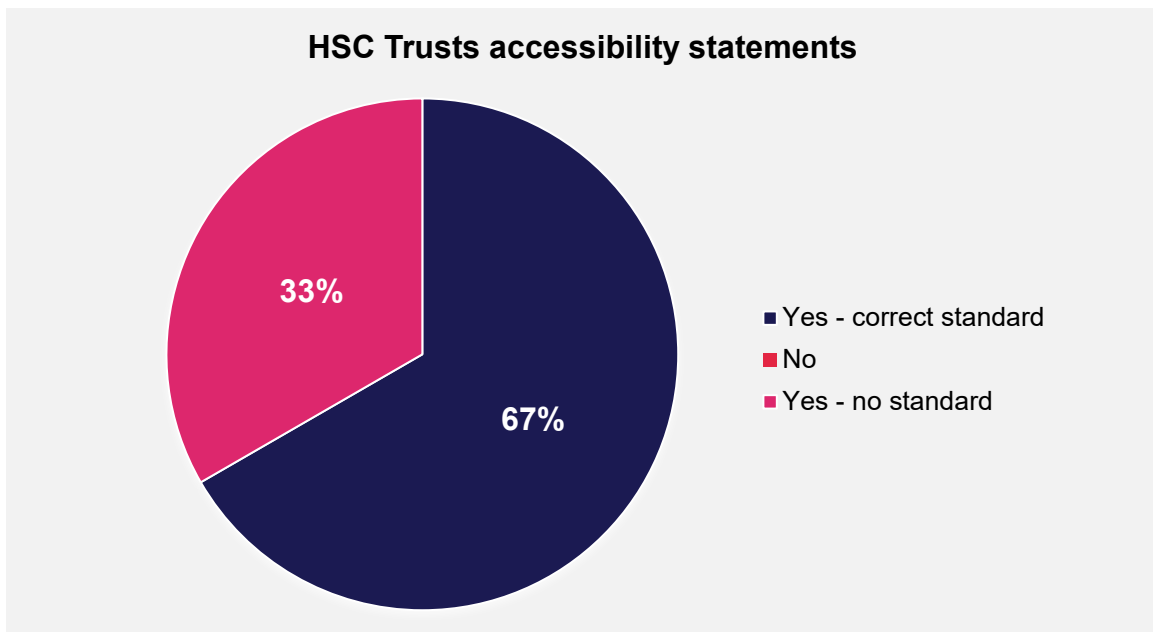


Figure 18: Health and Social Care Trusts Accessibility Statements

Google Lighthouse vs IA Labs

Google Lighthouse found a total of 31 issues across the health and social care trusts, compared to a total of 86 found by IA Labs. IA Labs discovered 177% more issues than Google Lighthouse.

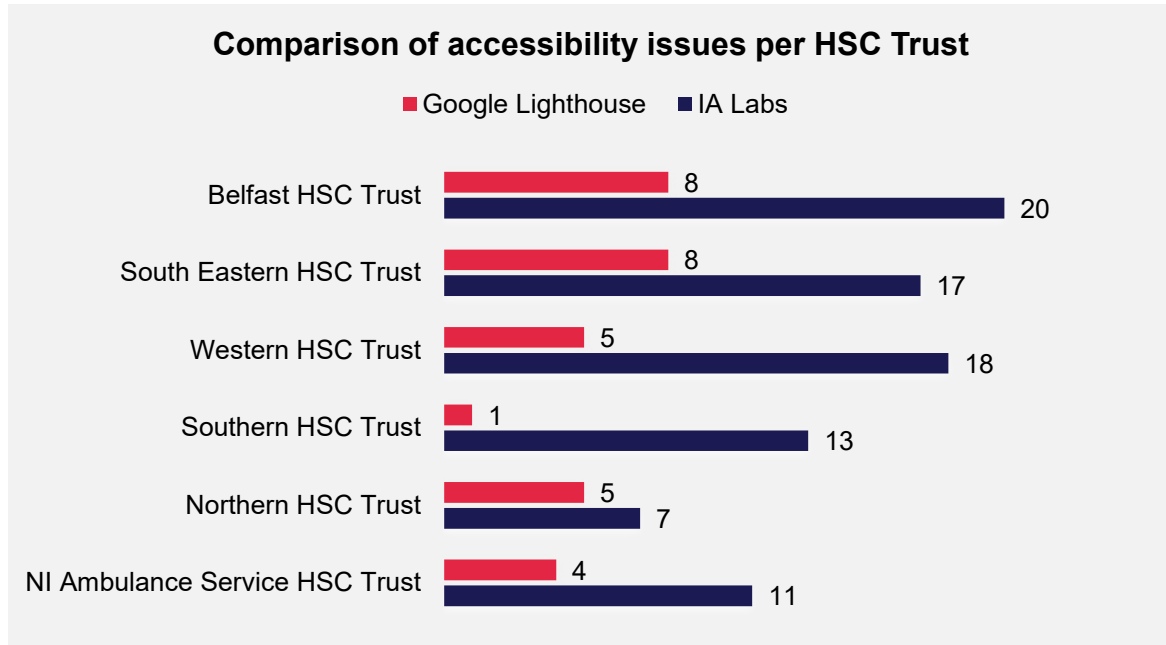


Figure 19: Comparison of Accessibility Issues Found by Google Lighthouse vs. IA Labs per Health and Social Care Trust

Critical User Journeys

The main accessibility issues on health and social care trust websites were to do with unlabelled links and buttons and navigation submenus that only appeared on mouse hover. If interactive elements like links or buttons are not labelled, users will have no idea what they do or where they lead to. This will make them hesitate to use a site and they may even miss out on important health information.

Navigation submenus that appear to users only on mouse hover are completely inaccessible to people with disabilities. Many people do not use a standard mouse to navigate a website, so they would be blocked from information and webpages that other people have easy access to.



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State Agencies



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State Agencies



This section of the report focuses on Northern Irish state agencies, which oversee and perform specific tasks on behalf of the government. In this case, the Dept. for Communities appoints Libraries NI and the NI Housing Executive Board; the Dept. of Health

appoints the NI Social Care Council; the Dept. for the Economy appoints Invest NI.

All state agencies are public sector bodies and are therefore required to comply with digital accessibility legislation and meet WCAG 2.1 standards [6]. They are listed as follows:

- Libraries NI
- NI Social Care Council
- NI Housing Executive Board
- Invest NI

Accessibility Review: Pass or Fail

Only one state agency (25%) out of four passed IA Labs' application of the WCAG 2.1 AA standard, the NI Housing Executive Board. We found an average of 20 issues across the state agencies. The most common accessibility issues found included:

- Broken or missing skip to content links
- Images that need more descriptive alt text
- Links and buttons that need more descriptive labels
- Links or buttons that don't work using only a keyboard

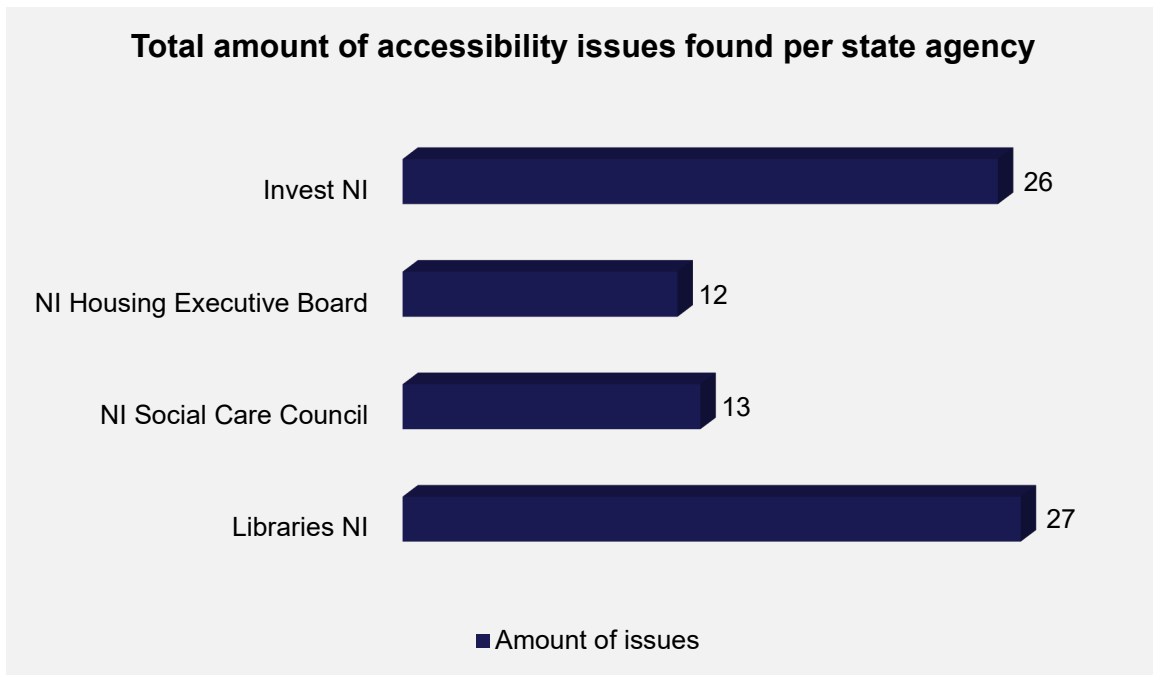


Figure 20: Total Amount of Accessibility Issues Found per State Agency

Accessibility Statement

- Two (50%) had no accessibility statement on their website
- Two (50%) had a statement which referenced the current WCAG 2.1 standard (Libraries NI, NI Housing Executive Board)

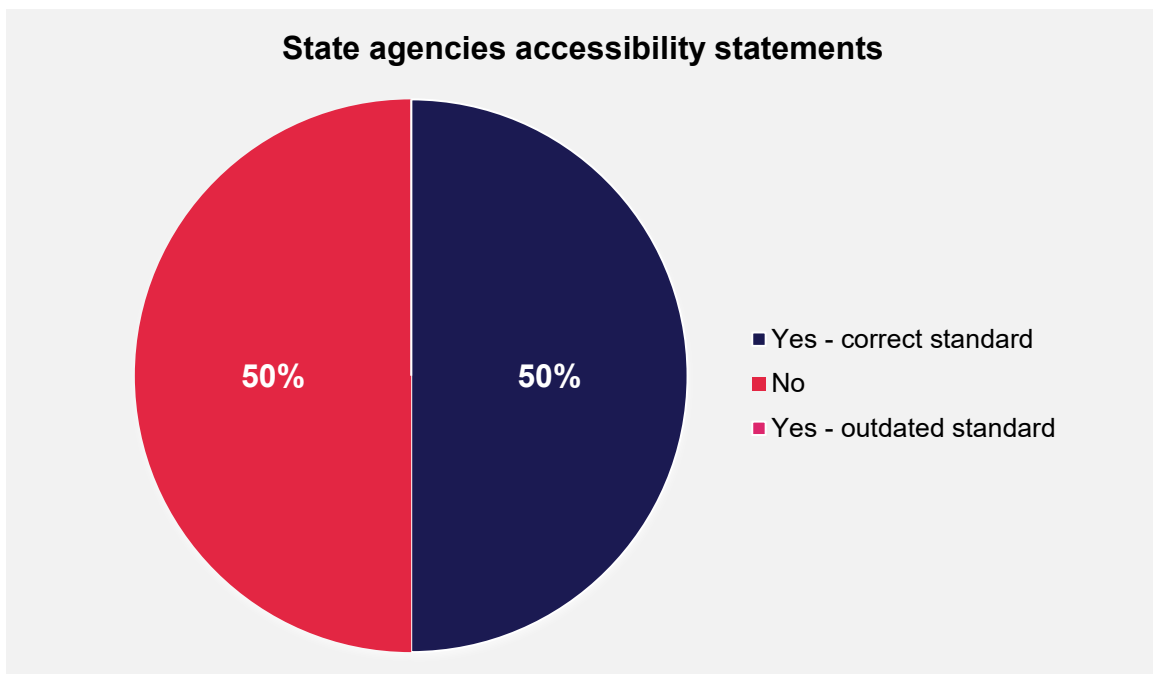


Figure 21: State Agencies Accessibility Statements

Google Lighthouse vs IA Labs

Google Lighthouse found a total of 7 issues across the state agencies, compared to a total of 78 found by IA Labs. IA Labs discovered 1014% more issues than Google Lighthouse.

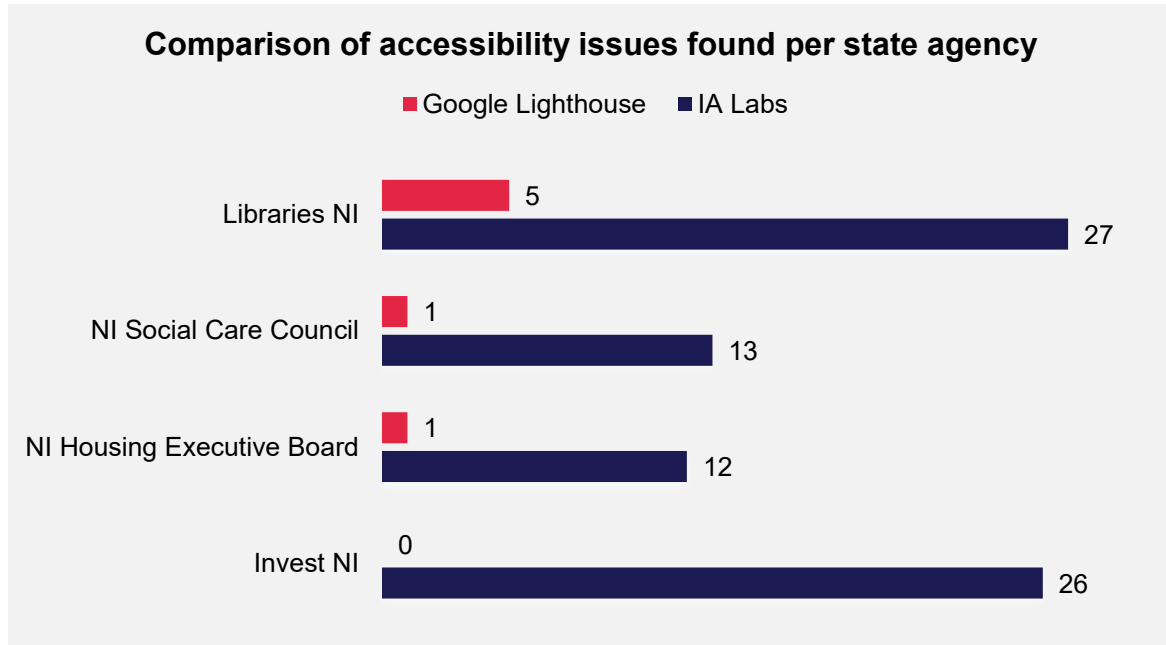


Figure 22: Comparison of Accessibility Issues Found by Google Lighthouse vs. IA Labs per State Agency

Critical User Journeys

Users who are blind or have a visual impairment will find it difficult to interact with a website that has no alt text on its images. This was one of the main accessibility problems with state agency sites, where images either had no alt text at all or had alt text that was incorrect or not descriptive enough.

Another accessibility problem found on state agency sites was the inability to activate links or buttons using only a keyboard. It would be impossible for anyone who doesn't use a standard mouse to navigate a site and complete a user journey.



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Utilities



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Utilities

The final section of this report focuses on utility providers. These organisations supply Northern Ireland with three important resources, electricity, water, and gas, and are listed as follows:

- Water – Northern Ireland Water
- Electricity – NIE Networks
- Gas – SSE

Northern Ireland Water is government-owned, which means it falls under the Public Sector Bodies Accessibility Regulations 2018 [6]. NIE Networks and SSE are considered part of the private sector, but since they provide an essential service to the public, it would be ideal for them to meet current digital accessibility standards even before it is required by law.



Accessibility Review: Pass or Fail

Only one utility provider (33%) out of three passed an IA Labs accessibility review, NIE Networks. We found an average of 21 issues across the utility providers. The most common accessibility issues found included:

- Low colour contrast
- Links that need more descriptive labels
- Focus and reading order issues

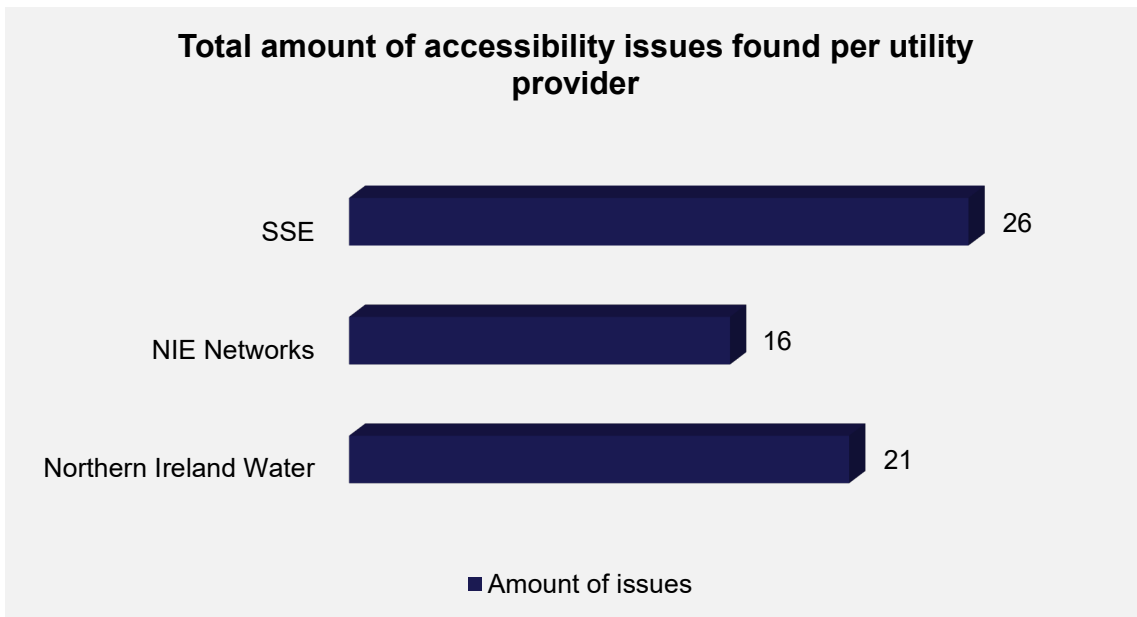


Figure 23: Total Amount of Accessibility Issues Found per Utility Provider

Accessibility Statement

- Two (67%) had no accessibility statement on the website
- One (33%) had a statement but did not reference any accessibility standard (NIE Networks)
- None (0%) had a statement that referenced the current WCAG 2.1 standard

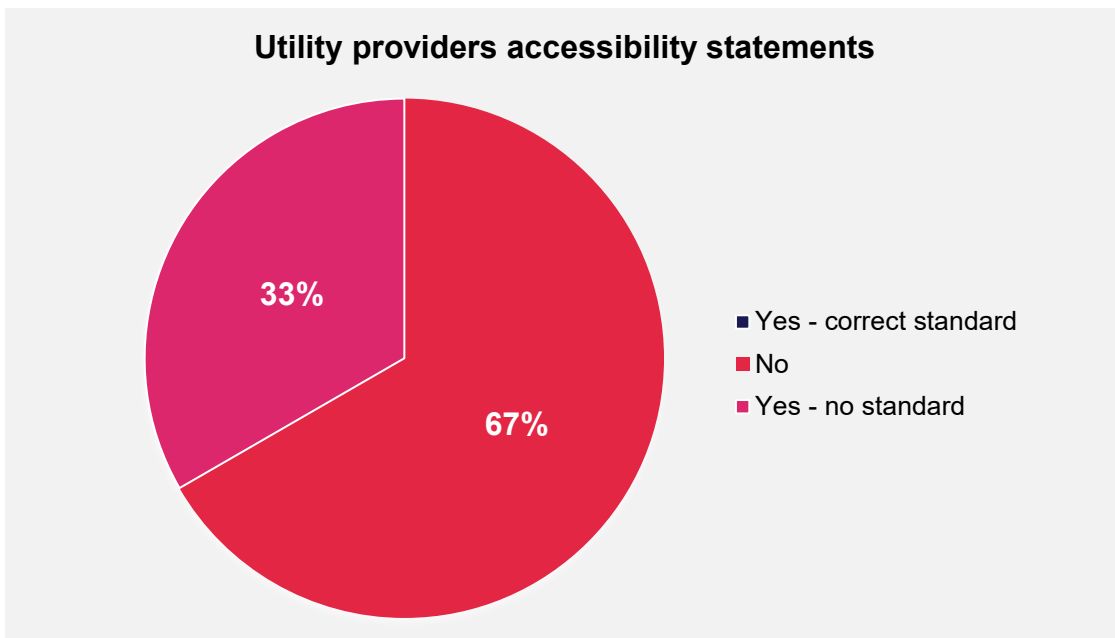


Figure 24: Utility Providers Accessibility Statements

Google Lighthouse vs IA Labs

Google Lighthouse found a total of 39 issues across the utility providers, compared to a total of 63 found by IA Labs. IA Labs discovered 62% more issues than Google Lighthouse.

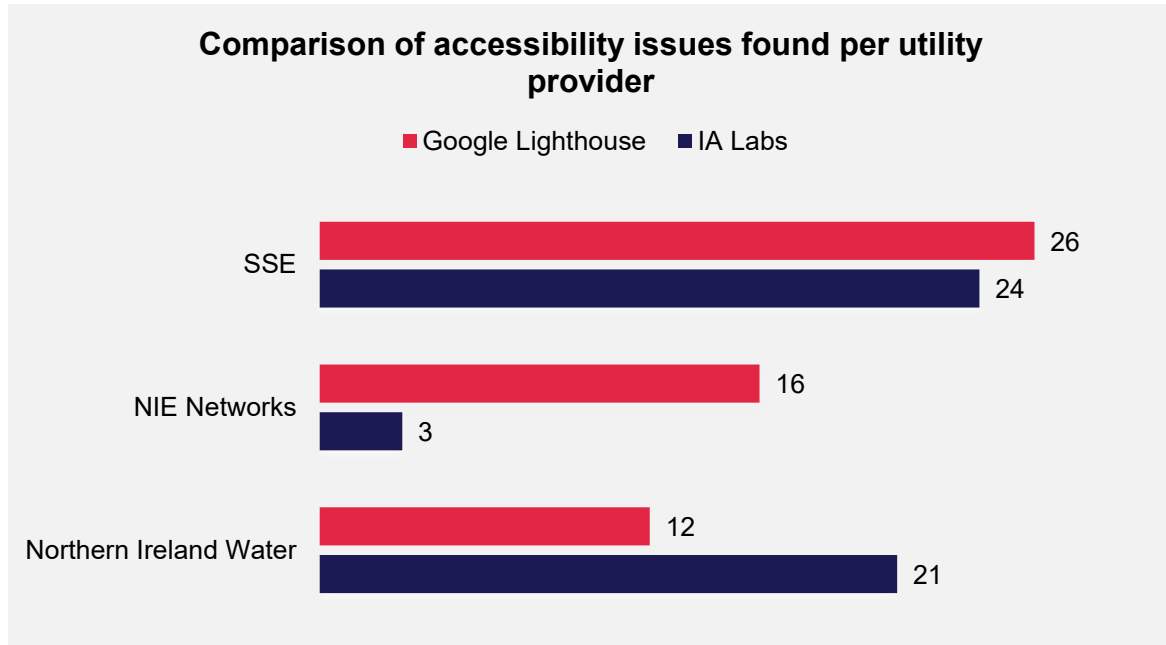


Figure 25: Comparison of Accessibility Issues Found by Google Lighthouse vs. IA Labs per Utility Provider

Critical User Journeys

Critical accessibility problems on utility websites included inaccessible content and poor labelling. The first problem arises when a website's focus order is incorrect and not logical. This causes people with disabilities to have a difficult time navigating a website and finding the information that they need. They will also struggle to interact with a site if link labels and button labels are not descriptive enough and provide no context as to what they do.



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Conclusions



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Conclusions

This report was compiled for ForSight NI as an awareness project, to inform and educate the most prominent organisations in the Northern Irish public and private sectors on digital accessibility issues.

Its objective is to illustrate where we are failing users with disabilities and show exactly how they are excluded from a world that is more prominent than ever. In many cases, it is they who need the digital world most, whether that be online shopping to sourcing important information about healthcare or local facilities.

The Digital Accessibility Index is not a name-and-shame exercise, but a project that has been launched in good faith to give the 20% of our society who live and work with a disability equal access to digital material.

No one-size approach fits all when it comes to making your digital presence accessible, but best practice and awareness of digital accessibility is a start.

While there are regulations in place for public sector bodies to ensure they meet WCAG 2.1 AA standards, even on inspection, there are flaws in the integration of digital accessibility within the public sector.

Take for example Stormont's nine government departments. While all passed an IA Labs accessibility audit, these departments still had an average of five accessibility issues each despite their obligations to adhere to WCAG standards and the Public Sector Bodies (Websites and Mobile Applications) (No. 2) Accessibility Regulations 2018.

Accessibility standards dropped further within state agencies and even local councils.

Within the private sector, of the cohort that was examined within the top 10 companies here, only three were deemed digitally accessible.

While private organisations are not held accountable by the Accessibility Regulations 2018, they do have a legal obligation to make reasonable adjustments under the Equality Act 2010 and the Disability Discrimination Act 1995.

Private organisations who want to operate in jurisdictions where digital accessibility is required by law must adopt measures or they can become vulnerable to legal repercussions, especially in the United States of

America and the European Union. The European Accessibility Act (EAA) will come into play in the latter in 2025.

But digital accessibility is more than a legal and moral obligation, it's an opportunity and a testament that an organisation promotes equality in all its endeavours.

As well as showing you have admirable environmental, social, and governance (ESG) standards, being digitally accessible opens your business and/or online service to a new audience or indeed a new customer, making it a profitable move.

ForSight NI has a mission in Northern Ireland to create equal access to the digital world and all the opportunities it provides.

IA Labs, who compiled this report, offers a level of expertise unlike any other in the digital accessibility domain. Its service includes a complete audit of a website, recommendations and remedies to ensure accessibility compliance, and follow-up retesting.

Being aware of the digital barriers facing users with disabilities is the first step to an inclusive society, the second is taking action, and the third is maintaining that action-focused mindset.



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Appendix



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Appendix

Definition of Disability

The **Disability Discrimination Act 1995 (DDA)** aims to end the discrimination faced by disabled people. It defines disability as ‘a physical or mental impairment which has a substantial and long-term adverse effect on a person's ability to carry out normal day-to-day activities’, where:

- (1) Impairment – covers physical and mental impairments including those affecting the senses such as sight and hearing, heart disease, diabetes, epilepsy, learning disabilities and mental ill health;
- (2) Substantial – more than minor effect, for example an inability to see moving traffic clearly enough to cross a road safely, to turn taps or knobs, or to remember and relay a simple message correctly;
- (3) Long-term – lasted at least 12 months, or likely to last at least 12 months, or likely to last for the rest of the life of the person affected, or likely to recur at least once beyond the 12-month period following the first occurrence.

Census 2021 and other official surveys have used the following definitions of disability:

- (1) Answered ‘yes’ to the question ‘Do you have any physical or mental conditions or illnesses lasting or expecting to last 12 months or more?’ and answered either ‘yes, a lot’ or ‘yes, a little’ to the question ‘Does your condition or illness reduce your ability to carry out day-to-day activities’.
- (2) A person with one or more of the following long-lasting conditions or difficulties:
 - Deafness or partial hearing loss
 - Blindness or partial sight loss
 - Mobility or dexterity difficulty that requires the use of a wheelchair or that limits basic physical activities
 - Intellectual or learning disability or learning difficulty
 - Emotional, psychological, or mental health condition
 - Frequent periods of confusion or memory loss
 - Long-term pain or discomfort
 - Shortness of breath or difficulty breathing, or any other chronic illness or condition

Dates on which the websites were tested

The dates are stated in the DD/MM/YYYY format.

Top Employers in Northern Ireland

Index	Employer	Date of Audit
1	Tesco	24/08/2022
2	Moy Park	24/08/2022
3	ASDA	24/08/2022
4	Spirit AeroSystems	24/08/2022
5	Four Seasons	24/08/2022
6	Henderson Group	24/08/2022
7	Teleperformance	24/08/2022
8	BT	26/08/2022
9	Marks & Spencer	26/08/2022
10	Almac	26/08/2022

Government Departments

Index	Department	Date of Audit
1	Agriculture, Environment and Rural Affairs	5/07/2022
2	Communities	5/07/2022
3	Economy	5/07/2022
4	Education	5/07/2022
5	Executive Office	5/07/2022
6	Finance	5/07/2022
7	Health	5/07/2022
8	Infrastructure	5/07/2022
9	Justice	5/07/2022

Local Authorities

Index	Local Authority	Date of Audit
1	Antrim and Newtownabbey Borough	7/07/2022
2	Ards and North Down Borough	7/07/2022
3	Armagh City, Banbridge and Craigavon Borough	7/07/2022
4	Belfast City	7/07/2022

5	Causeway Coast and Glens Borough	7/07/2022
6	Derry City and Strabane District	7/07/2022
7	Fermanagh and Omagh District	7/07/2022
8	Lisburn and Castlereagh City	7/07/2022
9	Mid and East Antrim Borough	29/11/2022
10	Mid Ulster District	7/07/2022
11	Newry, Mourne and Down District	29/11/2022

Education

Index	Secondary School	Date of Audit
1	Friends' School Lisburn	7/07/2022
2	Portadown College	7/07/2022
3	Our Lady and St Patrick's College, Knock	8/07/2022
4	Enniskillen Royal Grammar School	8/07/2022
5	Lumen Christi College	8/07/2022
6	Omagh Academy	8/07/2022
7	St Joseph's College Belfast	25/11/2022
8	St Patrick's High School, Keady	25/11/2022
9	Down High School	25/11/2022
10	St Michael's College Enniskillen	25/11/2022
11	Rainey Endowed School	25/11/2022
12	Holy Trinity College, Cookstown	25/11/2022
	Primary School	
13	Brownlee Primary School, Lisburn	29/11/2022
14	St Joseph's Primary School, Crumlin	30/11/2022
15	Dickson Primary School	30/11/2022
16	Lurgan Model Primary School	1/12/2022
17	Damhead Primary School	1/12/2022
18	St Anne's Primary School Derry	1/12/2022
19	Bridge Integrated Primary School	1/12/2022
20	St Clare's Abbey Primary School	1/12/2022

21	St Mary's Primary School, Tempo	1/12/2022
22	Enniskillen Model Primary School	1/12/2022
23	Edendork Primary School	1/12/2022
24	Queen Elizabeth II Primary School, Pomeroy	1/12/2022

Health and Social Care Trusts

Index	Trust	Date of Audit
1	Belfast HSC Trust	8/07/2022
2	South Eastern HSC Trust	8/07/2022
3	Western HSC Trust	8/07/2022
4	Southern HSC Trust	8/07/2022
5	Northern HSC Trust	8/07/2022
6	NI Ambulance Service HSC Trust	8/07/2022

Housing Associations

Index	Housing Association	Date of Audit
1	Radius Housing	18/08/2022
2	Co-Ownership	30/09/2022
3	Choice Housing	3/10/2022
4	Clanmil Housing	3/10/2022
5	Apex Housing Association	3/10/2022

State Agencies

Index	Agency	Date of Audit
1	Libraries NI	29/09/2022
2	NI Social Care Council	29/09/2022
3	NI Housing Executive Board	29/09/2022
4	Invest NI	29/09/2022

Utilities

Index	Utility	Date of Audit
1	Northern Ireland Water	29/11/2022
2	NIE Networks	29/11/2022
3	SSE	30/11/2022

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