



// IMPROVING  
DIGITAL ACCESSIBILITY  
IN HIGHER EDUCATION

***Advantages and legal framework***

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## //01// A GOOD START //

Students think, read, view and navigate through your apps, websites and digital systems in 1,000 different ways. Do you take into consideration students who are overwhelmed by the huge amount of content that is on offer to them or who can't hear sound or see videos? Or students who have language difficulties or a poor Internet connection, or who can't play sound (in the train or the library), for example? Digital accessibility can be a crucial factor in enabling students to study. Every student who is enabled to successfully complete their studies in this way and lead a fulfilling life as a result is a benefit to society.

More and more institutions are looking to improve their policy on digital accessibility. They do so not only to comply with the ever more stringent requirements in this field, but to enable as many students as possible to complete their studies successfully and to ensure that no student drops out of university unnecessarily. The main focus here is digital learning and work environments, registration systems, websites and intranet. This brochure provides an overview of the advantages of digital accessibility, the legal framework associated with it and a multiannual plan. In addition, it gives institutions tools to help them make a start on improving their digital accessibility.

Judith Jansen, ECIO, Expert centre on inclusive education  
Ron Beenen, Accessibility Foundation

### ***WANT TO COMPLY WITH DIGITAL ACCESSIBILITY REQUIREMENTS?***

This brochure provides answers to the following questions:

- What is digital accessibility?
- What's in it for me?
- What is the legal framework?
- How do I get started?
- Who can help me with this?

## /02/ What is digital accessibility?

Digital accessibility means making digital information and services accessible, usable and user friendly for everyone. So, in education, it mainly relates to websites, digital learning environments and study information systems. Nowadays, more and more information and services are (only) accessible via internet, intranet and apps. Often, timetables, marks, news, exam registrations, readers, presentations etc. are only provided in digital format.

All of these systems must be designed, built and configured in such a way that all visitors can use them effectively. In all browsers, on all platforms and on all devices. This has major benefits for students with a disability (special needs). At the same time, digital accessibility is important for everyone. Readily accessible, user-friendly information benefits all students and staff.

▶▶ 'I can't see at a glance which part of a text is relevant to read. So it's helpful to me if I can navigate effectively through my readers, glancing at headings and "learn more" links as I go. That way, I can start at the relevant paragraph.' ▶▶  
Nanne, sanimal sciences student

▶▶ 'If the lines in a graph all have different dots or lines, rather than colours which all look very similar to each other, I will know which line is which. So, for students who are colour blind, it's important that information in tables, keys and graphs is not colour dependent.' ▶▶  
Tim, student

## /03/ Why digital accessibility?

Taking steps to improve digital accessibility calls for a process of change. In the education sector, too. 30% of students have special needs and, for about a third of these students, their disability has an adverse impact on their studies. That means that 10% of all students experience difficulties during their studies as a result of disabilities such as dyslexia, ADHD, mental health issues, hearing or visual impairments or physical disabilities. Accessible websites, learning environments and study information systems would eliminate many of these issues. In other words, 10% of all students would benefit from adequate, accessible educational facilities. According to the latest annual report of the Centre for Higher Education Information (Centrum Hoger Onderwijs Informatie, C.H.O.I.), which is based on the results of the National Student Survey (NSE), students with special needs are either extremely satisfied or extremely dissatisfied with the digital accessibility of their university

(source: C.H.O.I. Annual Report 2018).

- Taking steps to improve digital accessibility has tangible benefits, both for the organisation and for students and staff. Moreover, accessibility is now a legal requirement.
- Under the new accessibility requirements and national regulations, institutions must systematically work on improving the accessibility of their digital products and online systems over the next few years.

▶▶ 'Not all PDFs are the same. If I can select the text from a PDF, I can also have it read out aloud or enlarged a little. This helps me understand the material better.' ▶▶  
Rick, architecture student

// Moving images and crowded pages distract and disrupt concentration. Students with autism, ADHD and other cognitive conditions in particular can be adversely affected by this. Like many other students, they benefit from less crowded webpages, clear texts and an obvious structure. //



// Blind students use their own Braille display or screen reading software to 'read' the content. Anything that is not displayed in the text, they miss. So, diagrams, tables, pictures, videos, buttons, flash animations etc. must have a text equivalent. //

// Visually impaired students often need to enlarge the texts on the screen. For them, a good contrast is also important. Since they also improve the contrast themselves using software, existing contrast may be lost..//

// Many deaf people prefer to use sign language to communicate. Dutch is not their mother tongue. So, just as for other students for whom Dutch is their second language, the readability of texts is very important. //

// Blind students can't see a cursor, so they can't use a mouse either. Consequently, they must be able to navigate around the screen using the keyboard. So, a simple, consistently applied page layout and use of a 'heading structure' in texts is essential. //



// Sometimes, people with a physical disability only use the keyboard, or even advanced tools, to work on their PC or laptop. Just as for blind students, it is important to them that navigation, links and buttons can be operated without a mouse. //

## **/04/ The advantages**



### **1. The user friendliness of your study programmes and the study success rate of your students will increase**

Some 10% of students are limited by special needs. Many of these students would be in a far better position to complete their studies independently if they had access to accessible digital information and learning tasks. That way, your study programmes would be far more user friendly for students and your study success rates would improve significantly. And, ultimately of course, the students concerned would be able to lead an independent life and participate in society.

### **2. Your institution will deliver higher quality**

Digital accessibility means a direct improvement in the quality, accessibility, sustainability and user friendliness of websites, systems and apps for everyone. Contrary to popular opinion, the accessibility guidelines do not hamper creativity, dynamism or interaction. Quite the opposite! Since 2011, the accessibility and user friendliness of education for students with special needs has been included in the accreditation system. By adopting a policy on digital accessibility, you can show that you are complying with the quality requirements and that you are leading the way in this field.

**3. *You show that you are socially engaged***

Developing an accessible website means taking social responsibility. You demonstrate that you take all your users seriously and don't exclude anyone. Accessible education systems and study materials are beneficial from a marketing perspective and help attract new students.

**4. *More students know where to find you***

Websites, digital learning environments and study information systems are only genuinely accessible if students with special needs can use them just as effectively as students without special needs. In addition: an accessible site will be better 'read' and is easier to find through search engines like Google. Accessible websites score more highly in search engines.

**5. *Your students and staff will be more satisfied***

The digital learning environment and the study information systems work well for everyone. This ensures satisfied, loyal 'customers' in both the short and long term. In other words, it's an investment in a long-term relationship.

**6. *You invest and save money***

Accessible systems are futureproof and more easily transferable. Maintenance and management are easier and, as a result, the associated costs are lower. Modifying or expanding the systems is straightforward and relatively cheap. You save money by not having to engage external expertise. Accessibility isn't always immediately visible from the outside. It's all in the underlying technology.

## 7. **Your website is responsive and works for everyone**

On all platforms and on all devices. Not only in Internet Explorer but also in Google Chrome. On an old PC and on the latest smartphone or tablet. The accessibility guidelines optimise accessibility for users who use old web browsers, who have not installed certain plug-ins or who access websites through mobile platforms.

▶▶ 'In my genetics book, the text is regularly broken up by a picture of a formula. My language programme can't read pictures. If the formula is typed out, I know which formula it is and I can access the material.' ▶▶ Nanne, animal sciences student

▶▶ 'I enlarge all the text on my computer. I adjust the colours and the contrast too, to make it easier for me to read. But that means that I can no longer see which part of the original text was "red" or "green", or "right" or "wrong". It is helpful to me if colours are not used in a text, but rather the text simply describes what is "right" or "wrong".' ▶▶ Elma, applied psychology student

▶▶ 'If information, about the timetable for example, is easy to understand and I don't have to click through too much, it really helps. That way, I can see straight away where I have to go for my lecture. So I can plan and get there on time.' ▶▶ Tom, architecture student

## **/05/ The legal framework**

Work on the systematic improvement of digital accessibility is governed by a number of regulations.

### **5.1 EUROPEAN STANDARD**

Digital accessibility is regulated at international level. A standard requires public bodies to comply with accessibility requirements when procuring, building and managing websites and apps. This ensures that content is accessible to people with special needs, such as those with a visual or hearing impairment and, as a result, also ensures digital accessibility for older people and users in general.

In line with this international policy, from now on, reference will no longer be made to 'web guidelines' but rather to 'accessibility requirements'. Accessibility means that websites and apps must be perceivable, operable, understandable and robust for everyone. The requirements relating to these elements will be used as a basis for systematically improving the accessibility of digital products and online systems over the next few years.

#### **■ EUROPEAN STANDARD**

- European standard EN 301 549, which
- was drawn up by the standardisation
- organisations ETSI, CEN and CENELEC,
- ensures that content is accessible
- to people with special needs, such
- as those with a visual or hearing
- impairment and, as a result, also
- ensures digital accessibility for older
- people and users in general.
- Accessibility means that websites and
- apps must be perceivable, operable,
- understandable and robust.

The international standard has been incorporated into an EU directive which requires each member state to incorporate digital accessibility into national regulations and to ensure that digital channels of public sector organisations are accessible. This requirement applies to websites and apps and to the intranet and extranet.

## **5.2 DUTCH REGULATIONS**

The Dutch regulations on digital accessibility for public bodies entered into force in July 2018 in the form of the 'Tijdelijk Besluit digitale toegankelijkheid voor de overheid' (Temporary Decree on digital accessibility for public bodies). This decree clarifies the way in which the public and semi-public sector must take responsibility for and monitor its compliance with digital accessibility requirements, in line with the European guidelines. This temporary decree states that websites and mobile apps of public bodies must comply with the accessibility requirements by 2021 in accordance with a step-by-step plan. This will be achieved in phases: new websites and intranets by 2019, existing websites and intranets by 2020 and all mobile applications by 2021.

This new legislation has resulted in a growing focus on digital accessibility in both the public and the private sector.

- **EU DIRECTIVE**
- EU Directive 2016/2102 develops the
- four elements of the international
- standard (perceivable, operable,
- understandable, robust) further into
- the developed (functional and
- measurable) accessibility requirements
- for ICT products and services in Europe
- (2015-04). This standard contains a
- collection of technical requirements
- and specifications, including the
- Web Content Accessibility Guidelines
- (WCAG 2.1, and ISO/IEC standard
- 40500:2012).

Not only government and other authorities but also companies, such as banks and web shops, are taking concrete steps to ensure their compliance with international accessibility requirements over the next few years and to fulfil their social responsibility in this regard. Educational institutions are also increasingly taking steps in this direction.

### **5.3 EQUAL TREATMENT ACT**

On 14 July 2016, the UN Convention on the Rights of Persons with Disabilities entered into force in the Netherlands. The UN Convention states that people with special needs must be able to participate fully in society. In order to comply with the requirements of the UN Convention on disabilities, on 14 June 2016, the Law on equal treatment for those with a disability or chronic illness (*Wet gelijke behandeling op grond van handicap of chronische ziekte, WGBh/cz*) was expanded to include the supply of goods and services.

Consequently, this law also applies to private suppliers of goods and services. On 1 January 2017, this requirement was expanded further: as well as individual adjustments, suppliers of goods and services must gradually guarantee universal accessibility for people with special needs.

#### **DUTCH REGULATIONS**

As well as the requirements of a step-by-step plan, the Dutch 'Temporary Decree on digital accessibility for public bodies' stipulates that public bodies must publish an up-to-date statement on the compliance of their website or mobile application with this decree, on their website or on downloading of a mobile application, in accordance with an agreed, published template.

Even if they have not been explicitly asked to do so. The only exception to this rule is if it would be disproportionate burden for them to do so. The Netherlands Institute for Human Rights is responsible for monitoring compliance with the Convention.

#### **5.4 IN THE EDUCATION SECTOR**

Educational institutions also must tackle the issue of digital accessibility. Indeed, under the terms of the WGBh/cz, they are forbidden by law from making an unnecessary distinction on the basis of disability or chronic illness when supplying or providing access to goods or services, when concluding, implementing or terminating agreements and when providing careers guidance, advice or information.

The Dutch programme '*Onbeperkt Meedoen*' (Unlimited Participation), which was launched in 2018, sets out clearly the principles of the UN Convention and makes it clear that the government, the Confederation of Netherlands Industry and Employers VNO-NCW and the Association of Netherlands Municipalities VNG plan to take significant steps to improve the accessibility of websites and apps. A number of universities of applied sciences and research universities have signed a declaration of intent which sets out a shared ambition,

▶▶ 'For a deaf student like me, everything that is communicated by sound must also be conveyed in another way. In the case of videos, through subtitling, for example. I've had study materials sent to me, all kinds of videos that I couldn't access. When I asked for a transcript, my lecturer told me there wasn't one. It doesn't make sense: that lecturer has produced and recorded the videos, surely he didn't do that off the top of his head?' ▶▶  
Gerold, student

// Large blocks of text can be difficult for students with dyslexia to access. They sometimes use screen reading software. Also, the use of an effective 'heading structure' and a clear layout is really helpful to them. A PDF document mustn't be an image, it must contain selectable text. For students with dyslexia, supporting text through pictures, tables and videos is recommended. //

process agreements and objectives for implementation of the UN Convention within the institutions.

The Dutch Higher Education and Research Act (WHW) addresses the need for provisions to improve accessibility and study programme feasibility for students with special needs. Since 2011, the accessibility and user friendliness of education for students with special needs has been included in the NVAO's Assessment framework for the accreditation system for higher education in the Netherlands. This framework assesses to what extent the quality assurance system of institutions is sufficient to guarantee the quality of education for their students. Educational institutions are asked to report on their policy on studying with special needs and the facilities that they offer, such as, for example, digital accessibility.

▶▶ 'I can't access the feedback from my lecturers. If I click on the button as I usually do, nothing happens. So now I have to go and see each of my lecturers to get my feedback; that's a bit ridiculous when it's available digitally. It would be good if buttons were actually buttons and could be used by everyone.' ▶▶  
Sam, graphic design student

## ***/06/ Making a good start on accessible higher education***

Taking steps to improve digital accessibility requires awareness, improvements in quality and sustainability. It is a process of change that involves the entire organisation and all staff. Because the policy on digital accessibility applies to the entire organisation, to all digital systems and to all elements within them. Within your organisation, therefore, a large number of professionals, each in their own way, will be confronted with the consequences of making the digital systems accessible. This change process requires the necessary support, both in terms of the process itself and in terms of content and expertise. The Expert centre on inclusive education (ECIO) and the Accessibility Foundation can help you make your institution a digitally accessible institution, with all the benefits that this brings.

### ***DIGITAL ACCESSIBILITY IN HIGHER EDUCATION***



- A 4-year process-based approach, in line with the EU directive.
- As an organisation, you will go through a number of phases, growing and improving as you go.
- Ideally, the process will start with a problem and impact analysis.
- The entire process and each of the phases focuses on awareness and change management and requires concrete actions from staff.
- Each phase calls for specific actions in the short and long term.
- Each phase involves both easy and difficult aspects.

We can help you with each phase and each action in this process.

**DIGITALLY ACCESSIBLE**

**AWARENESS**

**MULTIANNUAL  
APPROACH**

**COMMITMENT**

**START**

**PIT STOP**

**TIMELAPS**



**AWARENESS** → **MULTIANNUAL APPROACH** → **COMMITMENT** → **DIGITALLY ACCESSIBLE**

- ▶ Identifying systems, apps and websites
- ▶ Analysis

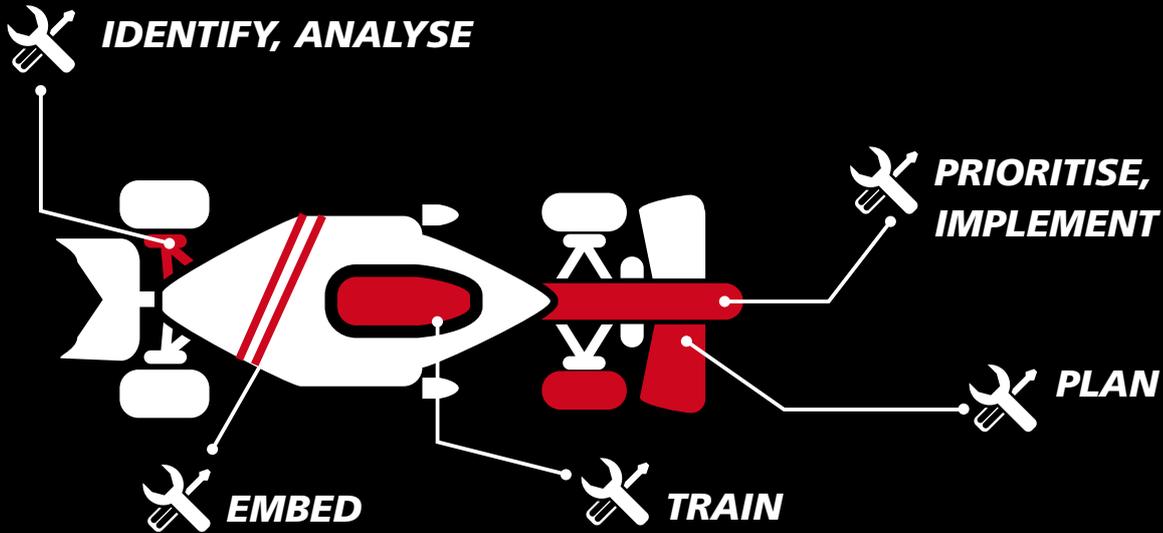
- ▶ Prioritising
- ▶ Making plans with users, suppliers, content and application managers

- ▶ Implementing
- ▶ Embedding and marking
- ▶ Training

- ▶ 'In control'
- ▶ Remaining accessible

**We can help you**

# PIT STOP



**100 %**

**Digital accessibility of higher education**

## **ECIO | EXPERT CENTRE ON INCLUSIVE EDUCATION**

Educational institutions can contact ECIO for advice and training in the field of digital accessibility:

- workshops and study days to raise awareness of digital accessibility
- policy sessions on creating commitment
- advice and support on implementation.

ECIO combines knowledge of higher education (accreditation), disabilities and digital accessibility to provide you with the best possible advice on this subject. The Expert centre on inclusive education is part of CINOP.

**[www.ecio.nl](http://www.ecio.nl)**

See also:

[www.digitoegankelijk.nl/](http://www.digitoegankelijk.nl/)

[www.mensenrechten.nl](http://www.mensenrechten.nl)

## **ACCESSIBILITY FOUNDATION**

The centre of expertise for the quality and accessibility of ICT, the Accessibility Foundation (Stichting Accessibility), provides a wide variety of training on the quality and accessibility of web-sites:

- introductory training and presentations with a wealth of background information and practical examples
- policy-related training for decision-makers
- technical training for web builders and designers
- training for web editors.

The website [www.accessibility.nl](http://www.accessibility.nl) contains a wealth of useful information, tips, toolkits and a list of accessible builders, for example. You can ask Accessibility for the precise survey data on your institution or have your website assessed.

**[www.accessibility.nl](http://www.accessibility.nl)**

This brochure gives institutions tools to help them improve their digital accessibility, describing clearly the advantages and the legal framework.

ECIO and the Accessibility Foundation would be happy to help you develop a multiannual approach.

[www.ecio.nl](http://www.ecio.nl)

[www.accessibility.nl](http://www.accessibility.nl)

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learning without obstacles

 **Accessibility**  
*Digitale toegankelijkheid voor iedereen*