FONDAZIONE LIA
LIBRI ITALIANI ACCESSIBILI

Accessibility QA for eBooks: Are Automatic Tools Enough?

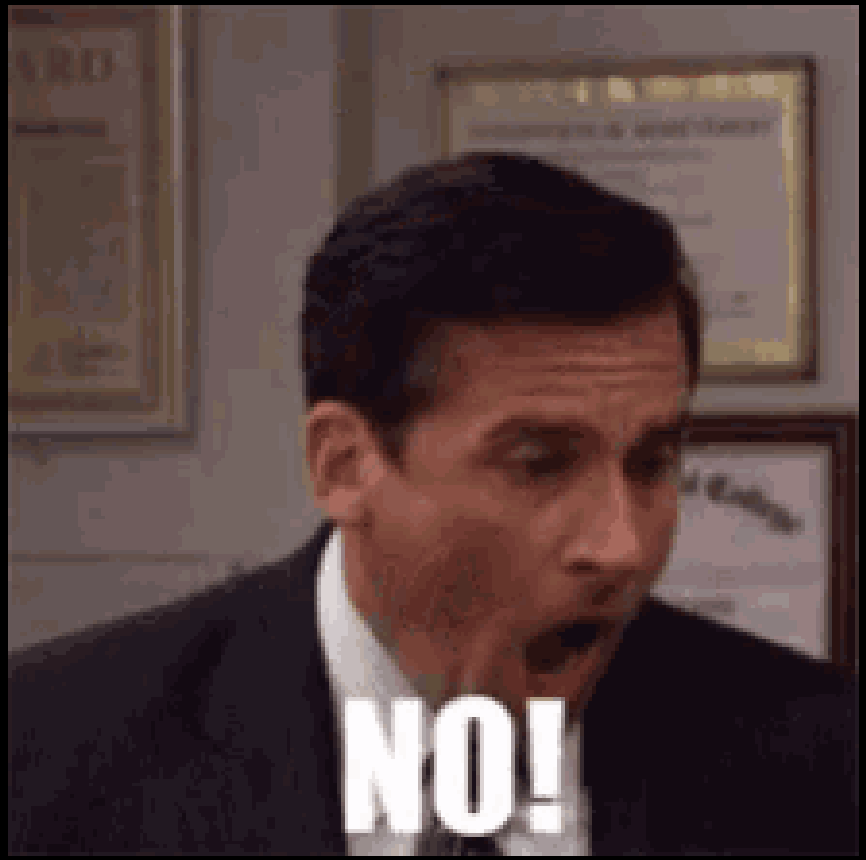
Gregorio Pellegrino

Chief Accessibility Officer @Fondazione LIA

Co-editor of:

W3C EPUB Accessibility 1.1 and User Experience Guide for Displaying Accessibility Metadata 1.0

EPUB Accessibility - EU Accessibility Act Mapping


NO!

But don’t worry: LIA is here to help!

A bit of background

My name is Pellegrino, Gregorio Pellegrino

- **First time at CSUN**!
- Italian **software engineer**
- Chief Accessibility Officer @ **Fondazione LIA**
- strong expertise in **accessible digital publishing**
- part of **working groups** on the accessibility of publications and format standards
- **Co-editor** of:
  - W3C EPUB Accessibility 1.1
  - User Experience Guide for Displaying Accessibility Metadata 1.0
  - EPUB Accessibility - EU Accessibility Act Mapping

© Fondazione LIA

Fondazione LIA:
pioneer in ebook accessibility QA since 2014

Fondazione LIA

Fondazione LIA is a non-profit foundation set up in 2014 by **Associazione Italiana Editori** (AIE) with **Unione Italiana dei Ciechi e degli Ipovedenti** (UICI), the Italian blind union.

In 2019 **Associazione Italiana Dislessia** (Italian Dyslexia Association) and the **Italian Library for the Blind "Regina Margherita"** of Monza joined the Foundation as institutional members.

17 publishing companies (with **76 publishing imprints**) and **MLOL**, the leading digital lending platform in Italy, are also members of the Foundation.

Our mission is **promoting books and reading** in all its forms through education, information, awareness and research in this area and **expanding access for print impaired people** to publishing products through research and technological innovation.

© Fondazione LIA

FONDAZIONE LIA
LIBRI ITALIANI ACCESSIBILI

LIA is an active part of an international network

World Wide Web Consortium

NGO which aims to develop all the potential of the Internet and manages its standards

- Digital Publishing Business Group
- EPUB3 Community Group:
  - Accessibility Taskforce
  - Accessible EPUB Fixed Layout Taskforce
- Publishing Maintenance Working Group

Daisy Consortium

International consortium of organizations whose purpose is to promote accessibility

- European Inclusive Publishing Forum
- EPUB Test Evaluation of reading apps and devices
- Transition to accessible EPUB
- Better EPUB from InDesign

European Digital Reading Laboratory

Financed among others by the Ministry of Culture and the French Ministry of Development, aims to develop reading and DRM solutions that take into account accessibility

- Accessibility Working Group

International Organization for Standardization

The most important organization for the definition of technical standards

- OT UNI/CT 014/SC 04 "Automazione e documentazione"

EDItEUR

The organization that sets the standards used in the global book, ebook, audiobook and magazine supply chain

- Onix code list 196"

Schema.org

The organization that creates and maintains structured data schemas for online use

- Schema.org

An accessible digital ecosystem

© Fondazione LIA

The LIA catalogue: Born Accessible ebooks certified by LIA system

Fondazione LIA works side by side with 78 publishing imprints to create and maintain a catalogue of born accessible books updated every day

+ 35.000

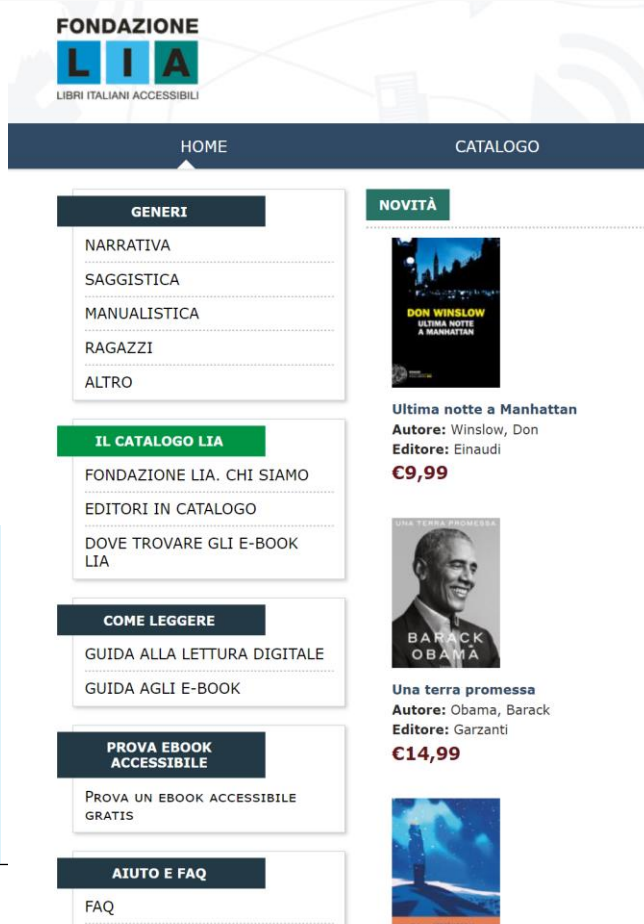
born and mainstream accessible Fiction and non-fictions ebooks

Quality control title by title

guarantees publishers, retailers and users

Mainstream Distribution channels

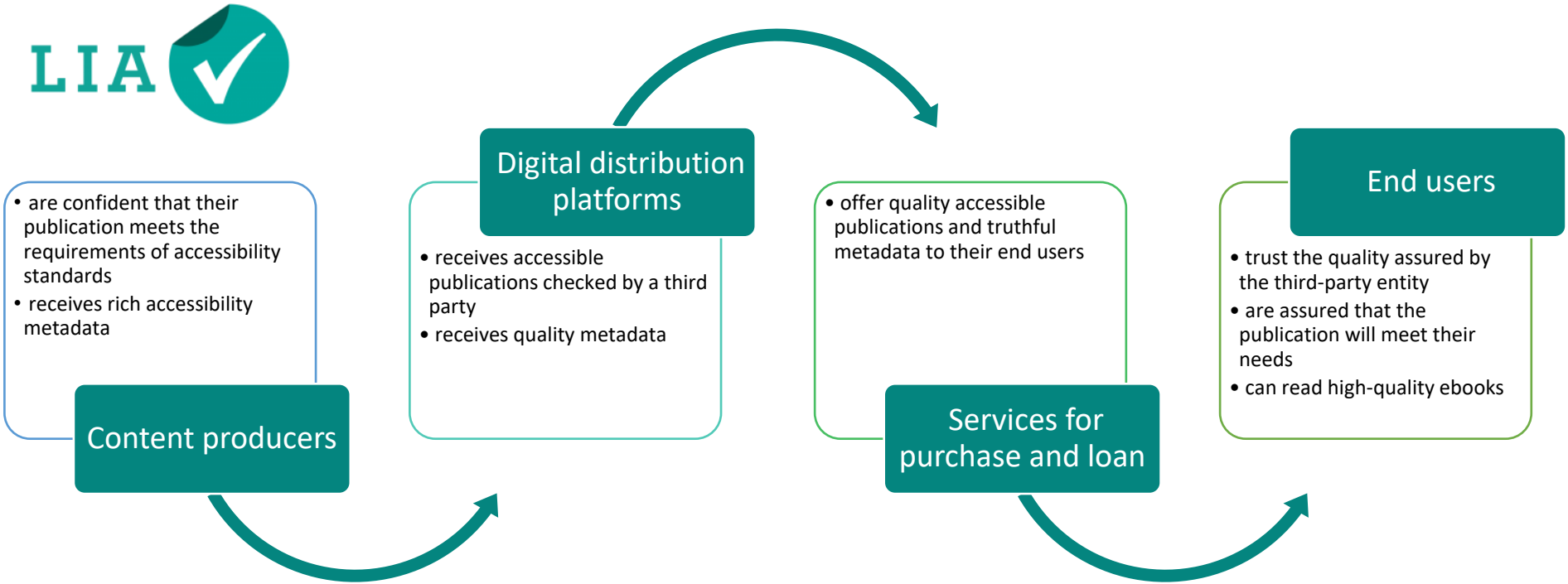
Online store, libraries Aggregators
Books in Print Catalogue
+ information to Authorized Entities



© Fondazione LIA

FONDAZIONE LIA
LIBRI ITALIANI ACCESSIBILI

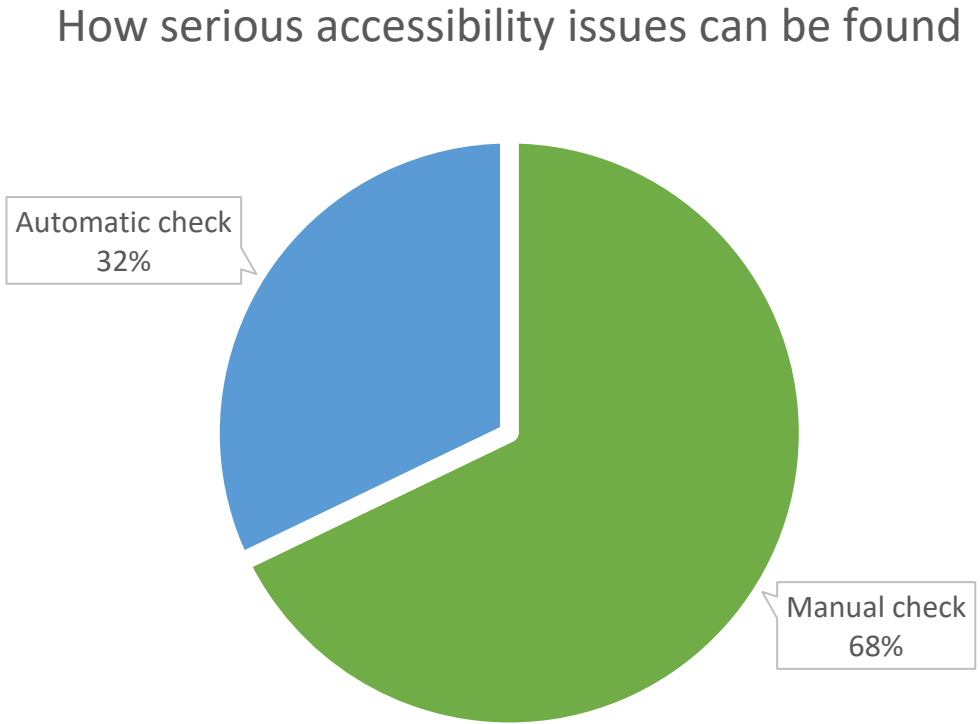
Title by title certification as a seal of approval for the whole ecosystem



© Fondazione LIA

Challenges in automated accessibility checks

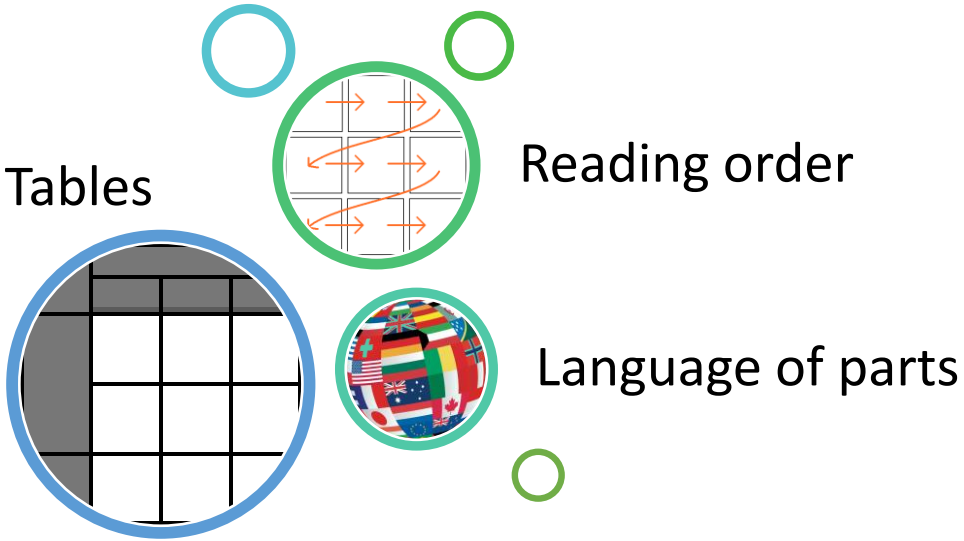
Not all accessibility requirements can be programmatically checked



© Fondazione LIA

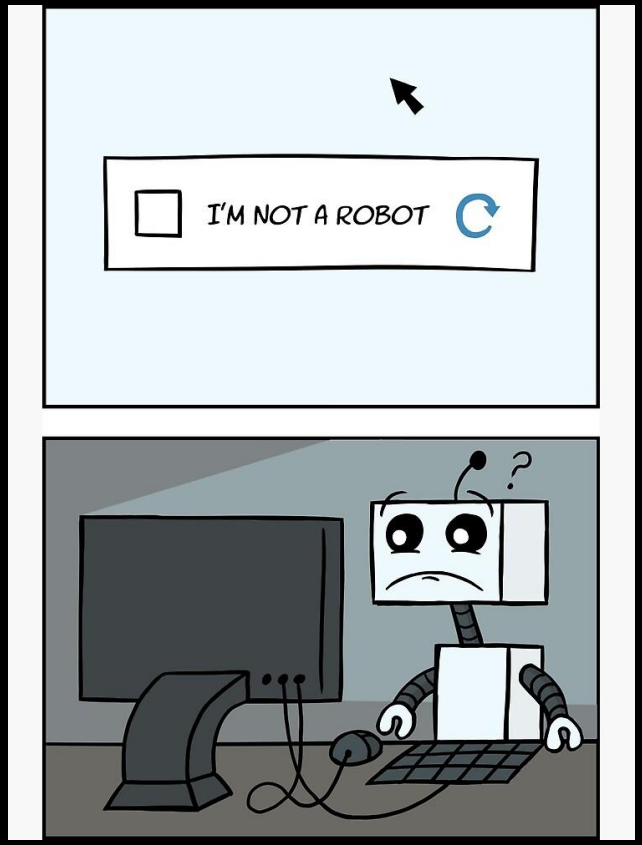
Limitations of automatic tools in assessing accessibility

Automated accessibility testing tools cannot assess all the requirements of EPUB Accessibility and WCAG because some criteria require human judgment or context understanding.



© Fondazione LIA

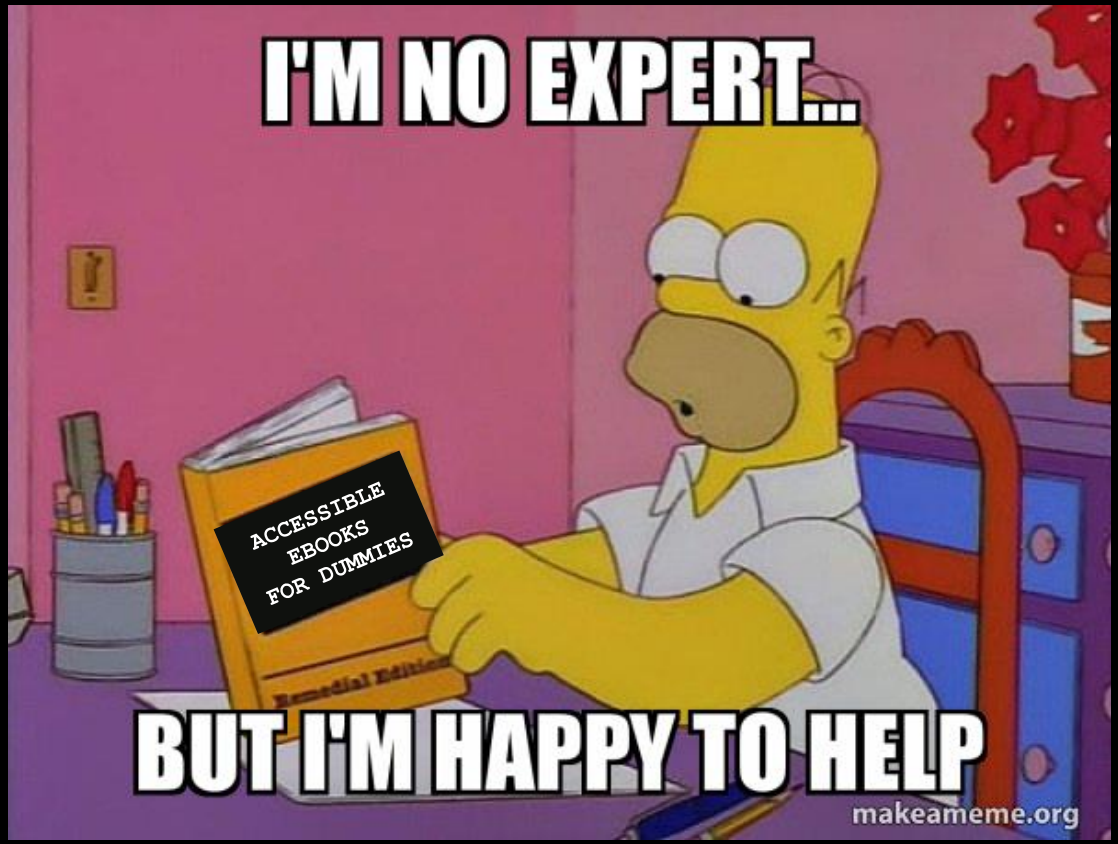
To be 100% compliant a human in the loop in needed!



They don’t know
automatic checkers
are not enough

LIA receipt for ebook Quality Assurance

There is probably a need for an expert



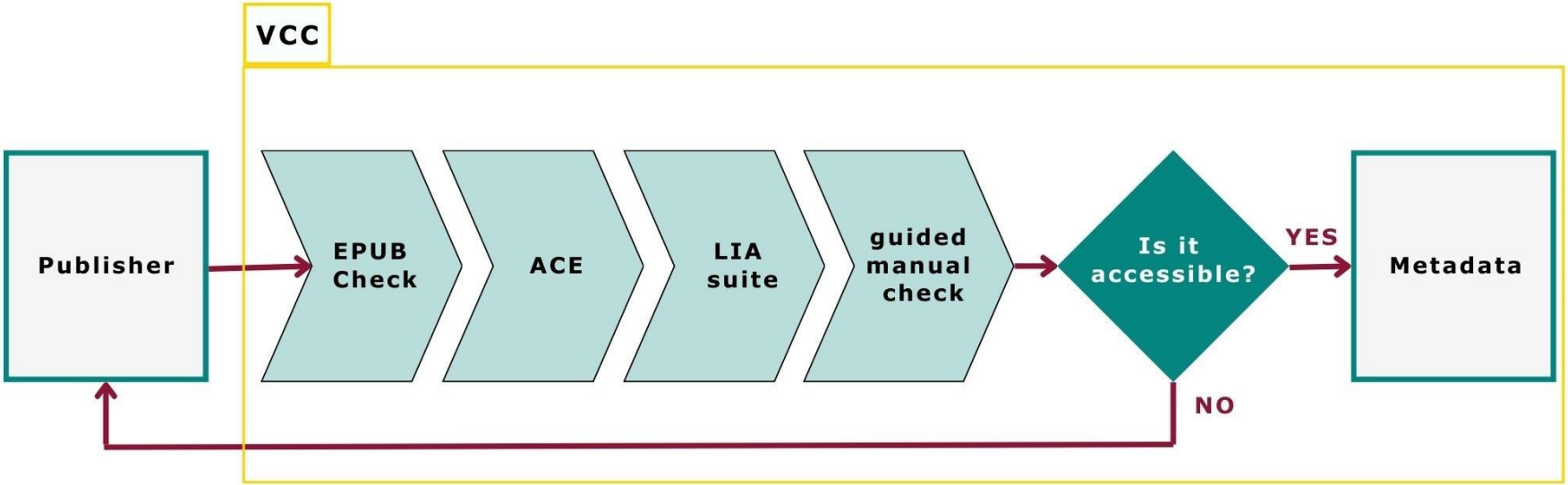
LIA receipt: human + machine

- We have developed a **system for ebook Quality Assurance title-by-title** that benefits from the best of machines and the best of humans:
  - **Methodology +** internally developed **tools +** IT **infrastructure**
- At the end of the checking process, **accessibility metadata are automatically generated**
- We have very **qualified in-house staff** who specialize in accessible digital publishing (not easy to find!)
- We stay **constantly up-to-date** on new standards and evolving technologies (thanks to work in Working Groups)
- We offer **support to content producers** who don't know how to make their content accessible

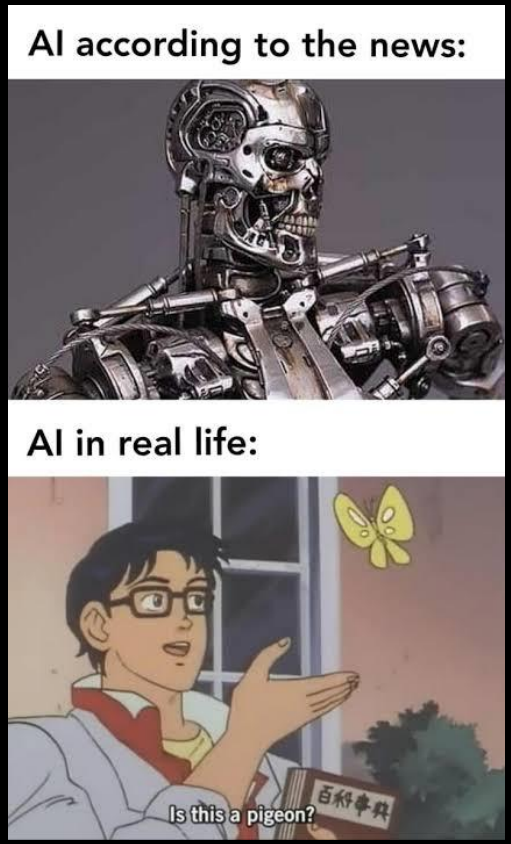
© Fondazione LIA

In union there is strength: human + machine

An IT infrastructure to provide a high level of Quality Assurance title-by-title based on standards



What about AI?

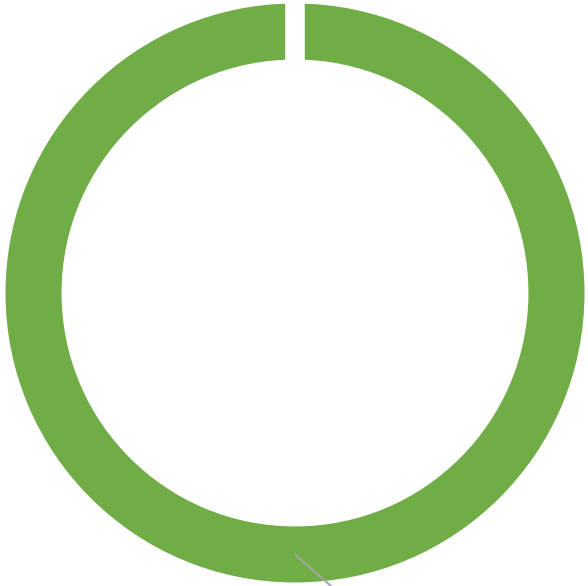


Common accessibility issues found in ebooks

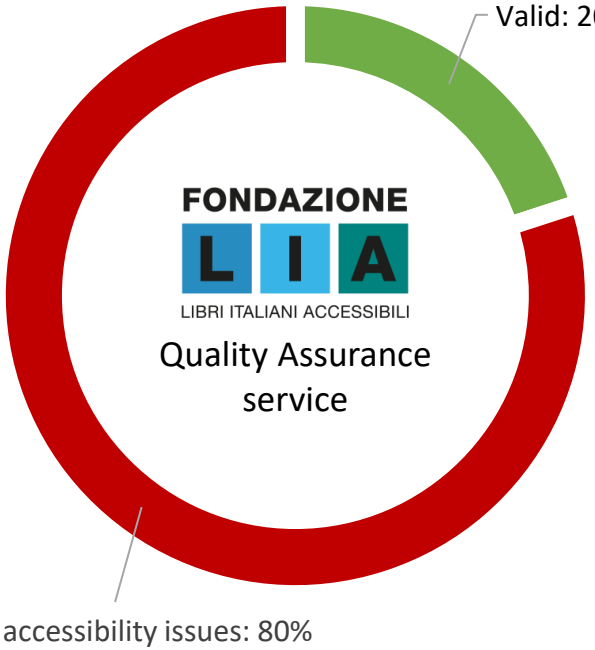
LIA experts have analyzed more than 400 ebooks declared as ”accessible”

automatic tools

Major accessibility issues: 0%



LIA QA



© Fondazione LIA

FONDAZIONE LIA
LIBRI ITALIANI ACCESSIBILI

Most frequently accessibility issues in ebooks declared as “accessible”

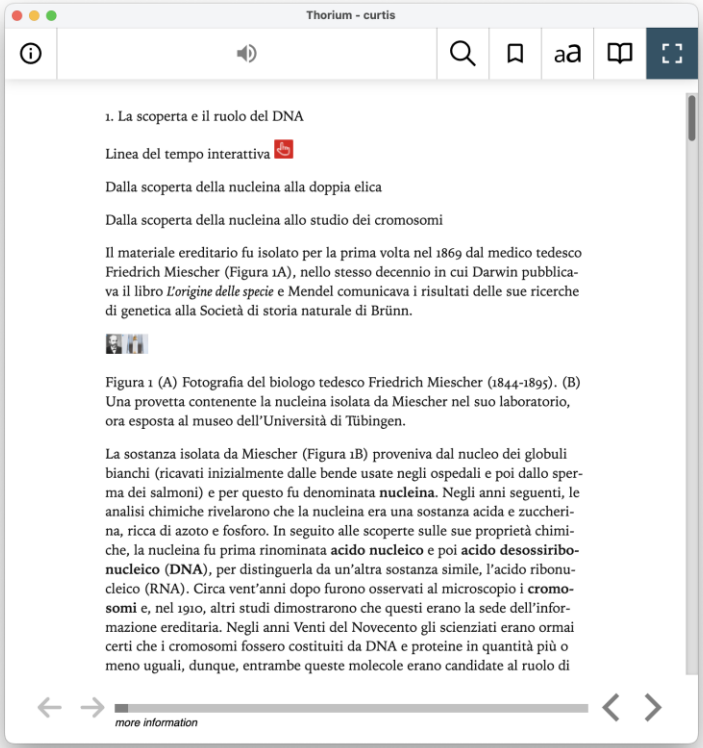
- Alternative text for images not meaningful
- Images of text with wrong description
- Words of indeterminate language
- Missing semantic tagging
- Semantic tagging used for visual effect
- Content identified only by color
- Accessibility metadata that does not reflect the actual content

© Fondazione LIA

Best practices for content producers

FONDAZIONE LIA
LIBRI ITALIANI ACCESSIBILI

An accessible ebook is a high-quality ebook for everyone



Recommendations for content producers

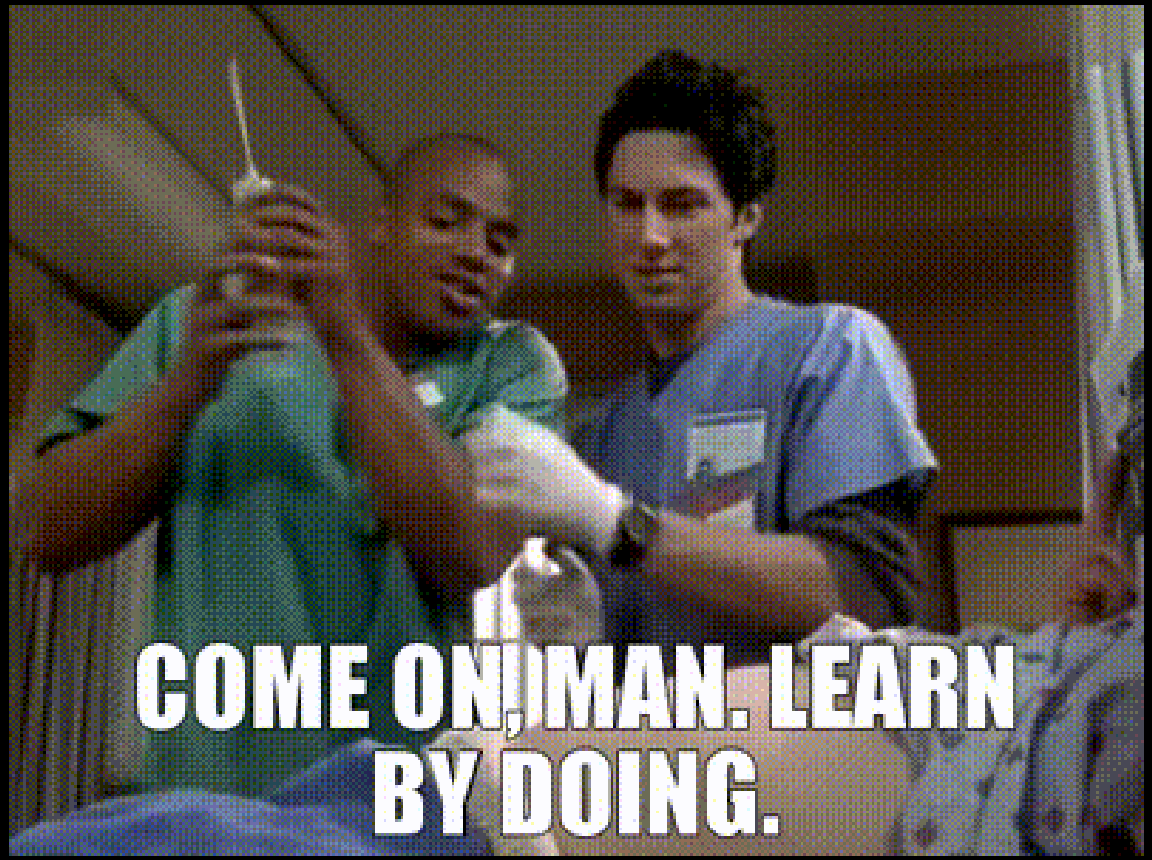
- **Study** accessibility specifications
- Understand how to use **authoring tools** in an accessible way
- **Plan** your work with accessibility in mind from the beginning
- **Ask an expert** when you don’t know

© Fondazione LIA

And then… test!

© Fondazione LIA

You may also get a side effect...



To recap...

FONDAZIONE LIA
LIBRI ITALIANI ACCESSIBILI

How to assure that publications are accessible

© Fondazione LIA

As for web accessibility...

- Best to rely on third-party experts
- Avoid "simple" solutions
- To avoid nasty surprises

© Giacinto Gaudenzi, Pinocchio, il Gatto e la Volpe

© Fondazione LIA

To measure the gap between how accessible you think a document is and how accessible it really is...

Q&A

ANY QUESTION?
NO HARD QUESTIONS PLEASE..
memegenerator.net

FONDAZIONE LIA
LIBRI ITALIANI ACCESSIBILI

Thanks for your attention

To stay updated,
subscribe to our newsletter!

Fondazione LIA
Corso di Porta Romana 108
20122 Milano
Tel. (+39) 02 89280808
segreteria@fondazionelia.org
www.fondazionelia.org