

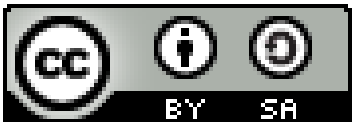
Classification of Software Accessibility Evaluation Tools: A Statistical Analysis

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1. Introduction

- The concept of **software** includes web pages, desktop applications, mobile applications or electronic documents.
- Software must be **accessible**, that is, it must be able to be used by anyone, including those with disabilities.
- It is required by the **legislation** of many countries, including all of the European Union that must meet the requirements of **EN301549** standard
- To verify that a software meets accessibility requirements, evaluators can use “software accessibility **evaluation tools**”.

2. Classification criteria

CRITERIA	VALUES
CATEGORY According to the functionality of the tool	Assistive Technology, Automatic Evaluation Tool , Checklist, Monitoring Service, Remediation Tool, User Simulator, Visualization Tool.
TYPE According to how the tool is used or installed	Application Plugin, Authoring Tool Plugin, Browser Plugin, Command Line Tool, Desktop Application, Document, Mobile Application, On Demand service, Online Tool , Testing Library, Web API, Web Application, Web Form, Web Page Plugin (widget).
SCOPE Object or property whose accessibility is to be evaluated	Color Contrast, Desktop Application, Document, Javascript Code, Mobile Application, Software, Text Readability, User Interface, Web Page , Web Site.
LICENCE Conditions of use of the tool	Commercial, Free , Open Source, Trial.

3. Classification of tools

TOOL	CATEGORY	TYPE	SCOPE	LICENCE
Accessibility scanner	Automatic Evaluation Tool	Mobile Application	Mobile Application	Free
WAVE	Automatic Evaluation Tool	Online Tool	Web Site	Free
PDF Accessibility Checker (PAC)	Automatic Evaluation Tool	Desktop Application	Document	Free
JAWS	Assistive technology	Desktop Application	User Interface	Commercial
No Coffee -- Vision Simulator for Chrome	User Simulator	Browser Plugin	Web Page	Free
WCAG-EM Report Tool	Checklist	Web Form	Web Site	Open Source

..... (484 tools)

Full list in <https://josehilera.github.io/a11y-lists/a11y-evaluation-tools.html>

4. Statistical analysis (Type and Scope by Category)

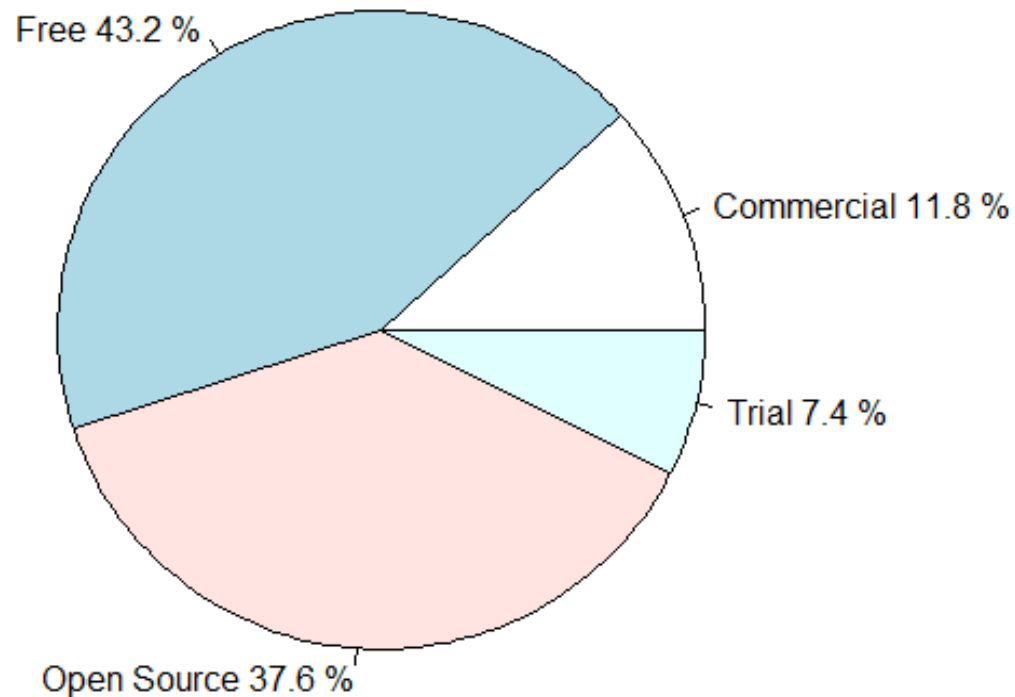
TYPE/CATEGORY	AT	AET	CK	MS	US	VT	TOTAL
On line tool	1	121	1	1	8	1	133
Browser plugin	11	68	0	0	4	30	113
.....							
TOTAL	43	342	33	9	20	37	484

SCOPE/CATEGORY	AT	AET	CK	MS	US	VT	TOTAL
Web Page	10	157	20	0	5	33	225
Web Site	0	71	7	9	0	0	87
Mobile App	15	28	4	0	0	0	47
.....							
TOTAL	43	342	33	9	20	37	484

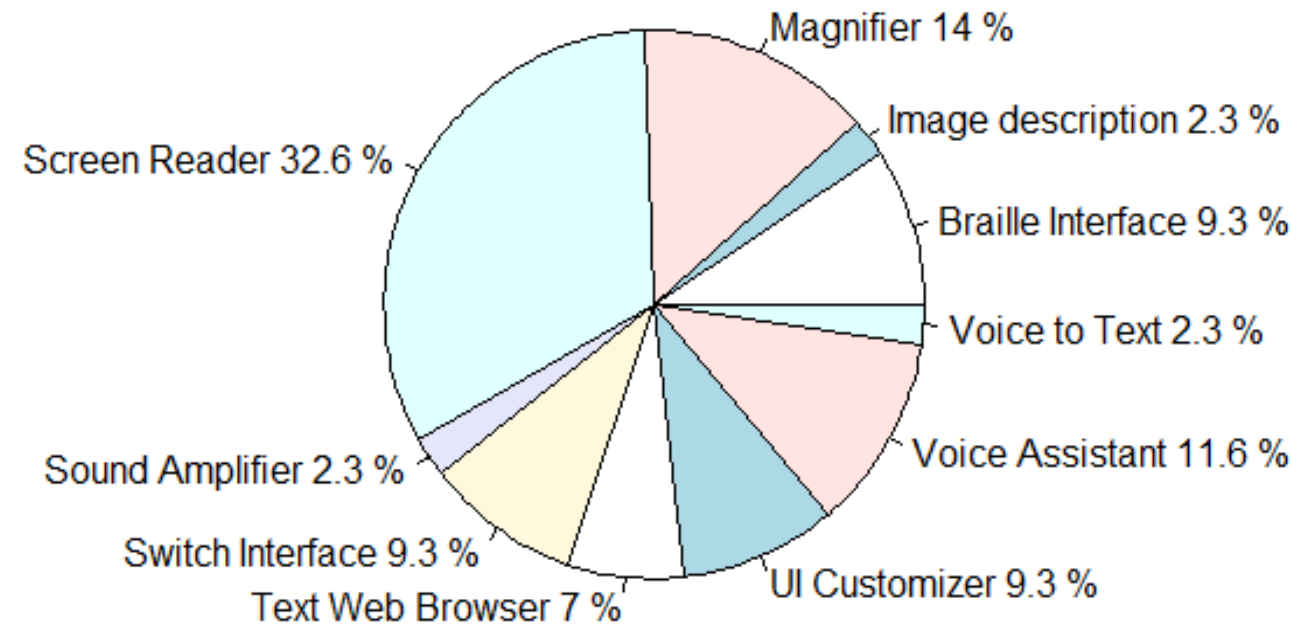
AT=Assistive Technology, AET=Automatic Evaluation Tool, CK=Checklist,
MS=Monitoring Service, US=User Simulator, VT=Visualization Tool

4. Statistical analysis (Licence and Assistive technology)

- **Distribution of the types of licence of all tools**



- **Distribution of the different subcategories in the assistive technology category**



5. Conclusions

- Most of the existing tools are currently focused on the automatic evaluation of the accessibility of web pages and websites, and these are tools available for use online.
 - Although it can also be found automatic evaluation tools of mobile applications or electronic documents.
- Unfortunately, none of these tools can fully assess the accessibility of the software.
- It is necessary for the evaluator to perform manual checks in order to determine if the software is really accessible.
 - Using other tools such as assistive technologies, disability simulators or visualization tools, that can be used to verify if evaluated software presents barriers to users with different types of disabilities.

<https://josehilera.github.io/a11y-lists/a11y-evaluation-tools.html>



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