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How Multilingual are my tools?

TEIC 2021, 25 October 2021

Persistent Identifier: [urn:nbn:de:kobv:b4-opus4-37762](https://nbn-resolving.org/urn:nbn:de:kobv:b4-opus4-37762)

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How Multilingual are my Tools?

Dr. Antonio Rojas Castro

BBAW / UNIR

TEIC 2021, 25 October 2021

Multilingualism is a complex phenomenon

- Tower of Babel → Linguistic Diversity as a Problem
- The emergency of the Modern State and the idea of Unity → One Nation-One Language
- Elite multilingualism vs. minorities, immigrants and powerless people languages, “endangered languages” ...



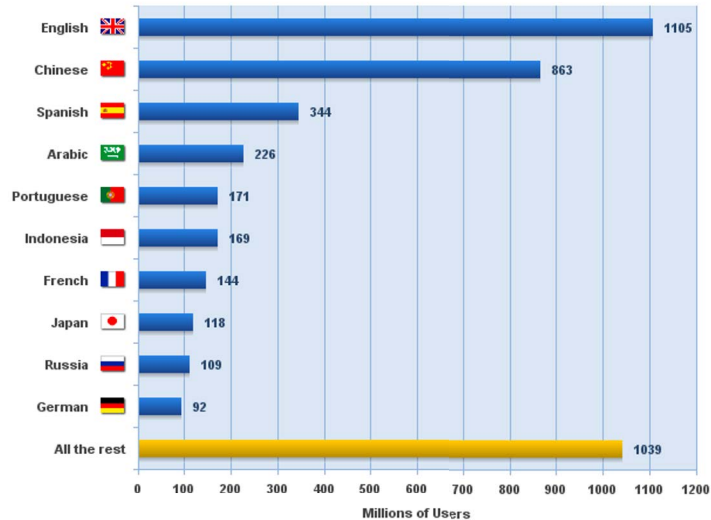
Babel, by
Cildo
Mereiles
(2001)

Some definitions

- “The word ‘multilingualism’ means ‘many languages’ (Latin *multus* = many) and is a term applied by some scholars to two languages and by others to three or more” (Cenoz, 2013: 2).
- “The ability of societies, institutions, groups and individuals to engage, on a regular basis, with more than one language in their day-to-day lives” (European Commission, 2007, p. 6).

Multilingualism and Internet Studies

Top Ten Languages in the Internet
in Millions of users - April 2019

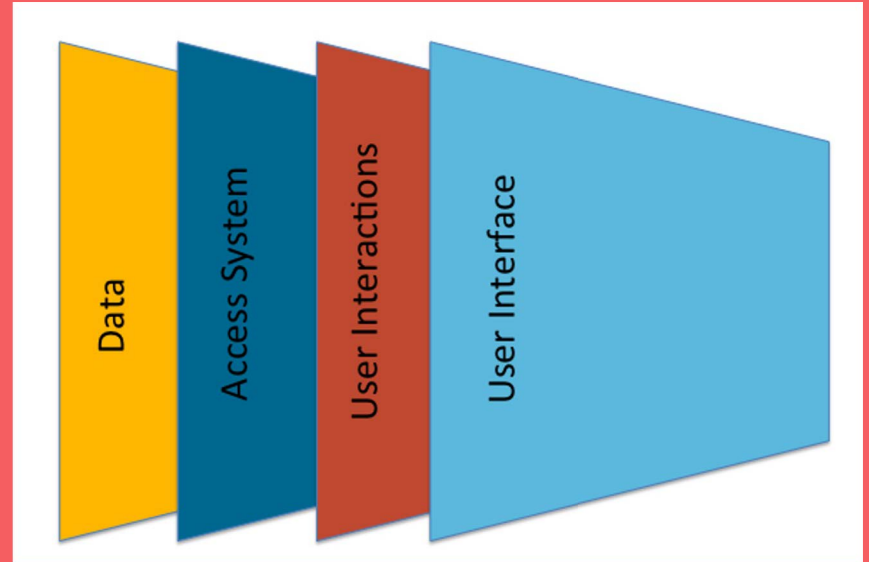


Source: Internet World Stats - www.internetworldstats.com/stats7.htm
Estimated total Internet users are 4,386,485,541 in April 30, 2019
Copyright © 2019, Miniwatts Marketing Group

- 2003: UNESCO Recommendation concerning the promotion and use of multilingualism and universal access to cyberspace (UNESCO, 2018)
- 2010: W3C Internationalization Initiative (i18n) aims to “make it possible to use Web technologies with different languages, scripts, and cultures.”

Multilingualism and the Digital Humanities

- 2014: “Geographical and linguistic diversity in the Digital Humanities” by Isabel Galina
- 2015: *The Digital Humanist. A Critical Inquiry* by Domenico Fiormonte, Teresa Numerico & Francesca Tomasi
- 2019: “The Switchover: Teaching and Learning the Text Encoding Initiative in Spanish” by Susanna Allés-Torrent & Gimena del Rio Riande



The different layers of accessing information in cultural heritage information systems in “White Paper on Best Practices for Multilingual Access to Digital Libraries” (Stiller, 2016)

Multilingualism and Software

Usability	
Understandability	Is the software easily understood?
Documentation	Comprehensive well-structured documentation?
Buildability	Straightforward to build from source on a supported system?
Installability	Straightforward to install and deploy on a supported system?
Learnability	Easy/intuitive to learn how to use its functions?

Sustainability & Manageability	
Identity	Project/software identity is clear and unique?
Copyright	Easy to see who owns the project/software?
Licencing	Adoption of appropriate license?
Governance	Easy to understand how the project is run and the development managed?
Community	Evidence of current/future community?
Accessibility	Evidence of good facilities to obtain versions of the software?
Testability	Easy to verify if the software functions correctly?
Portability	Usable on multiple platforms?
Supportability	Evidence of current/future developer support?
Analysability	Easy to understand at the source-code level?
Changeability	Easy to modify and contribute changes?
Evolvability	Evidence of current/future development?
Interoperability	Interoperable with other required/related software?

“Software is usually not appropriate for all audiences. Gearing software at multiple audiences however, through for instance offering multiple interfaces (command line interface (CLI), graphical user interface (GUI), web-user interface (WUI), web service) is good practice.” (CLARIAH, 2016: 18).

“With regards to multilingual audience, mention whether the tool is compatible with textual resources using non-Latin alphabet/scripts and/or multiple languages.” (Sichani & Spadini, 2018).

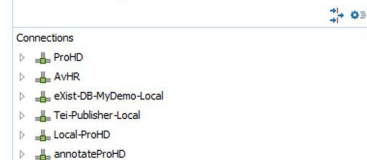
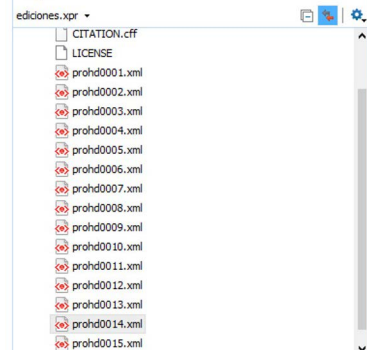
A Preliminary Analysis

	Oxygen XML Editor (v. 23.0)	Visual Studio Code (v. 1.59.1)	FairCopy (v. 0.11.0)
Unicode	✓	✓	✓
Multilingual Graphical User Interface (GUI) by Default	✓	✗	✗
Plugins or extensions for Multilingual GUI	✓	✓	✗
Multilingual Documentation	✗	✗	✗

Oxygen XML Editor (v. 23.0)

- Developed SyncRO Soft Ltd. Romania (founded in 1998)
- Available for Windows, macOS and Linux
- XML Authoring and Developing Tool that supports DITA, DocBook, XHTML, and TEI frameworks
- Display languages: by default, 6 languages (English, French, German, Japanese, Dutch, and Chinese), but more languages can be added. It also supports right to left writing.
- Documentation only available in English online
- Proprietary Licence → It is not free!
- Configurable scenarios that produce outputs in PDF, ePUB, and HTML, validation of documents, frameworks, Author View, integration with Github...





Carta de Francisco de Arango y Parreño a Alexander von Humboldt À Monsieur Mr. le Baron A. Humboldt

Rojas Castro, Antonio (Editor)

Financiadores : Auswärtiges Amt⁴ / Fritz Thyssen Stiftung⁴ / Gerda Henkel Stiftung⁴

⁴Primera edición de Proyecto Humboldt digital - ProHD (⁴2020⁴), ⁴

⁴Berlin-Brandenburgische Akademie der Wissenschaften (BBAW)⁴⁴, Berlín⁴

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Base textual

Manuscrito

Institución : Staatsbibliothek zu Berlin – Preußischer Kulturbesitz

Colección : Colección Alexander von Humboldt

Signatura : Caja pequeña 7b, no. 68

URI : <http://kalliope-verbund.info/DE-611-HS-1272345>

URI : <http://resolver.staatsbibliothek-berlin.de/SBB00015CC500000000>

Descripción física del documento

1 hoja

Información sobre la correspondencia

Remitente : Arango y Parreño, Francisco de (1765-1837)

Lugar de escritura : La Habana

1827-07-30 30 de julio de 1827

Destinatario : Humboldt, Alexander von (1769-1859)

Idioma

Español

Resumen

Carta en la que Francisco de Arango y Parreño comunica a Alexander von Humboldt el envío a través de su primo de unos comentarios al "Ensayo político sobre esta Isla", y expresa su admiración por el "filósofo viajero".

Resumen

Brief, in dem Francisco de Arango y Parreño an Alexander von Humboldt kommuniziert die Übersendung einiger Kommentare zum "Ensayo político sobre esta Isla" durch seinen Cousin, und drückt seine Bewunderung für den "reisenden Philosophen" aus.

Categorías

Visual Studio Code (v. 1.59.1)

- Born in 2015 and developed by Microsoft
- Available for Windows, macOS and Linux
- Supports JavaScript, Typescript and Node.js and has many extensions for other programming languages (C++, Java, Python, XML)
- Display languages: extensions available for 14 languages (16 locales) via VS Code Marketplace
- Documentation only available in English online
- Source Code is licensed with a MIT License... but it is free!
- Integration with Github, TEI Publisher, eXistDB



Archivo Editar Selección Ver Ir Ejecutar Terminal Ayuda prohd0014.xml - workspace (área de trabajo) - Visual Studio Code

EXPLORADOR prohd0014.xml X

EDITORES ABIERTOS ProHD > data > prohd0014.xml

WORKSPACE (ÁREA DE TRABAJO)

ProHD

data

- about_en.xml
- about_es.xml
- about.xml
- critérios.xml
- prohd0001.xml
- prohd0002.xml
- prohd0003.xml
- prohd0004.xml
- prohd0005.xml
- prohd0006.xml
- prohd0007.xml
- prohd0008.xml
- prohd0009.xml
- prohd0010.xml
- prohd0011.xml
- prohd0012.xml
- prohd0013.xml
- prohd0014.xml
- prohd0015.xml
- taxonomy.xml
- team_en.xml
- team_es.xml
- team.xml

modules

- lib
- app.xql
- config.xqj
- custom-api.json
- custom-api.xql
- facets.xql
- generate-pm-config.xql
- map.xql
- navigation-dbk.xql
- navigation-jats.xql
- navigation-tei.xql
- navigation.xql
- pm-config.xql

ESQUEMA

XML DOCUMENT

```
<titleStm>
  4
  <title type="main">Carta de Francisco de Arango y Parreño a Alexander von Humboldt </title>
  5
  <title type="sub" xml:lang="fr">À Monsieur Mr. le Baron A. Humboldt</title>
  6
  <editor>
  7
  <persName ref="https://orcid.org/0000-0002-8916-4997">
  8
  <surname>Rojas Castro</surname>
  9
  <forename>Antonio</forename>
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  32
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  38
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  39
  </msIdentifier>
  40
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  41
  <p>1 hoja</p>
  42
  </physDesc>
  43
```

PROBLEMAS SALIDA CONSOLA DE DEPURACIÓN TERMINAL

Windows PowerShell
Copyright (C) Microsoft Corporation. Alle Rechte vorbehalten.

Lernen Sie das neue plattformübergreifende PowerShell kennen - <https://aka.ms/pscore6>

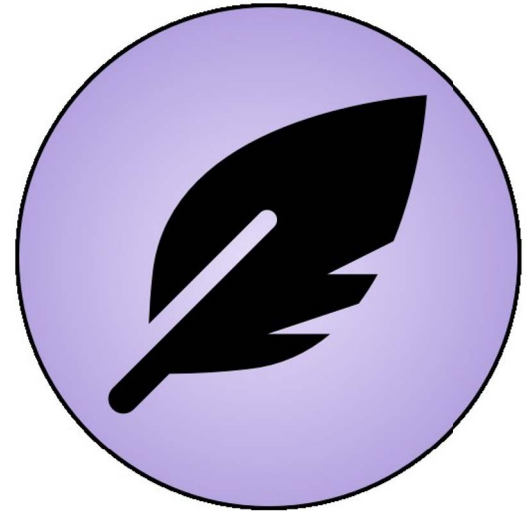
PS C:\Users\Rojas-Castro\Desktop\ProHD>

powershell + v [] [] ^ x

Lin. 32, col. 78 Espacios: 4 UTF-8 LF XML [] [] Disconnected [] []

FairCopy (v. 0.11.0)

- Early Access Program launched in 2020
- Developed by Performant
- Available for Windows, Linux and Mac
- GUI that hides XML tags and allows schema validation and customization
- GUI interface will be localized into Spanish and French in 2022
- The website is available in English, French and Spanish but the videos only in English
- Integration with IIIF and easy association between pages and zones and transcription
- Licence? Price? Supports Right to Left Writing?



fileDesc	titleStmt	title	title	editor	author				
	editionStmt	p							
	publicationStmt	publisher	pubPlace	availability	licence				
	sourceDesc	msDesc	msIdentifier	institution	collection	idno	idno	idno	
			physDesc	p	bindingDesc	ab			
	profileDesc	creation	langUsage	language	abstract	p	abstract	p	textClass

Carta de Francisco de Arango y Parreño a Alexander von Humboldt
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Rojas Castro Antonio
Auswärtiges AmtFritz Thyssen StiftungGerda Henkel Stiftung
Primera edición de Proyecto Humboldt digital - ProHD (2020).
[Berlin-Brandenburgische Akademie der Wissenschaften \(BBAW\)](#)
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<http://kalliope-verbund.info/DE-611-HS-1272345>
<http://resolver.staatsbibliothek-berlin.de/SBB00015CC500000000>
1 hoja

Arango y Parreño, Francisco de (1765-1837)[La Habana30 de julio de 1827](#)Humboldt, Alexander von (1769-1859)
Español
Carta en la que Francisco de Arango y Parreño comunica a Alexander von Humboldt el envío a través de su primo de unos comentarios al "Ensayo político sobre esta Isla", y expresa su admiración por el "filósofo viajero".
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Choose your fighter



- Should I switch to a new editor? From monopoly to competition?
- How do newer tools integrate in our established workflows?
- Which other features are really relevant for you? Validation? XSLT transformation? Price? License?
- Is really multilingualism a priority when working with TEI files or just a “desiderable”?

Conclusions

- Multilingualism is a complex phenomenon with social and individual aspects that has been studied from a diverse range of disciplines like linguistics, sociology, psychology, cognitive studies, translation studies, internet studies...
- Multilingualism in the Digital Humanities should also analyse the many layers of access that can be multilingual within an information system (data, interfaces, user interaction, search retrieval, etc.).
- The tools analysed here support UNICODE by default, but most of them support multilingual user interaction (GUI and display languages) only by adapting its configuration or installing plugins and extensions.

Thanks! ¡Gracias!
Gràcies! Danke! Merci!

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