Internationalization a major driver of growth for VIVO

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focus of the presentation / discussion

- gather the VIVO community around the benefits of internationalization
- briefly discuss what is done, and what need to be done
- create a synergistic involvement in the internationalization of VIVO

Internationalization (abbreviated **i18n**) *is the process of designing a software so that it can be adapted to various languages and regions without engineering changes.*



key argument for VIVO i18n

A complete VIVO internationalization (i18n) is critical to reach a major adoption at an international level, as many institutions need to have support for languages other than English.

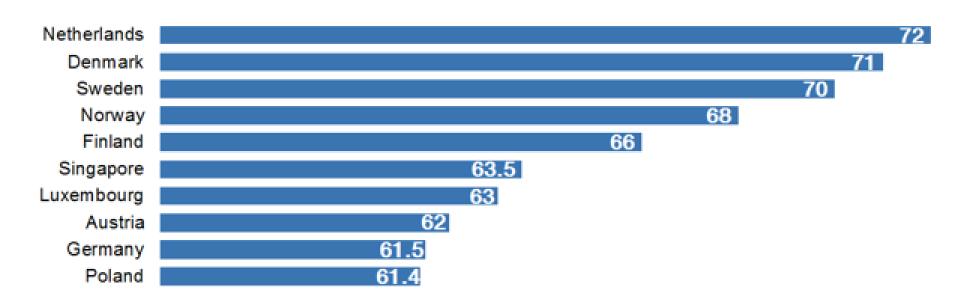
It is an important driver of growth for VIVO, but only if the interface and the data can use multiple languages.



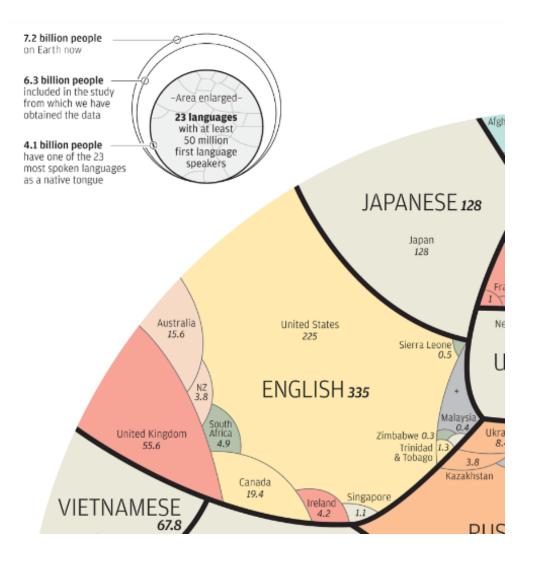
Countries best at English as a second language



The English Proficiency Index 2016



A world of languages Regions in which these languages are present There are at least 7,102 known languages alive in the world today. Twenty-three of these languages are a mother tongue for more than 50 million people. The 23 languages make up the native tongue of 4.1 billion people. We represent each language within black borders and then provide the numbers of native speakers (in millions) by country. The colour of these countries shows how languages have taken root in many different regions 6.3 billion people Countries whose figures in each language is too small to be represented have been put into a single group and marked with the symbol '+' from which we have obtained the data 23 languages with at least 50 million first language 4.1 billion people have one of the 23 MALAY/ most spoken langua as a native tongue BAHASA 60.5 JAPANESE 128 MARATHI 71.8 ITALIAN 63.8 IL (Israel-0.91), IR (Iran-1.4), KW (Kuwait-1.0), LB (Lebanon-3.9), OM (Oman-1.16), PS (Palestine-1.61), QA (Qatar-0.47), TD (Challed O.9) URDU 64 HINDI 260 Morocco 18.8 ENGLISH 335 Yemen 14.4 Saudi Arabia 14.2 ARABIC 242 Egypt 72.7 VIETNAMESE RUSSIAN 166 TELUGU 74 GERMAN 78.1 LAHNDA 88.7 JAVANESE 84.3 KOREAN 77.2 TAMIL 68.8 CHINESE 1,197 PORTUGUESE 203 'Chinese' as macrolanguage includes different languages and dialects: Gan (韓語)-20.6 million speakers, Hakka (等京語)-30.1 Huizhou (韓語)-46, Jinyu (音語)-45.0 Mandarin (官語)-48, Min Bei (曜江部)-10.3, Min Dong (明東語)-9.12, TURKISH 70.9 Min Nan (閩南語)-46.6, Min Zhong (閩中語)-3.10, Pu-Xian (莆仙話)-2.56, Wu (吴語)-77.2, Xiang (湘語)-36.0, Cantonese (粵語)-62.2 (Note that the indented listing of individual dialects does not include all Chinese languages or dialects) SPANISH 399 GT (Guatemala), NI (Nicaragua), PA (Panama), SV (El Salvador), UY (Uruguay) Colombia 41 BENGALI 189 India 82.5 MM (Myanmar-0.5), MO (Macau-0.5), PH (Philippines-0.7), SG (Singapore-1.8), TH (Thailand-1.2), VN (Vietnam-0.9) "Ethnologue-Languages of the World". These estimates are not absolute because the demography is constantly evolving. Some studies are based on data from old census and may date back more than 8 years BE (Belgium-3.9), CH (Switzerland-1.9),



Author: Alberto Lucas Lopez

Source: https://www.visualcapitalist.com/a-world-of-languages/





VIVO @ Université du Québec à Montréal (UQÀM)

Before VIVO and still in operation:

- homegrown faculty profile management http://professeurs.uqam.ca
- using a CMS and a relational DB, with gateways to Library information system (publications) and Registrar information system (courses)

VIVO phase I launch in march 2019: "Cartographie des expertises" http://expertises.ugam.ca - french version of the "capability map" only

VIVO phase II starting in septembre 2019

 Expecting to replace the homegrown faculty profile management but need a full internationalization of VIVO to support French and English



UQAM > Cartographie des expertises > Accueil

ACCUEIL Répertoire des professeurs 🖾

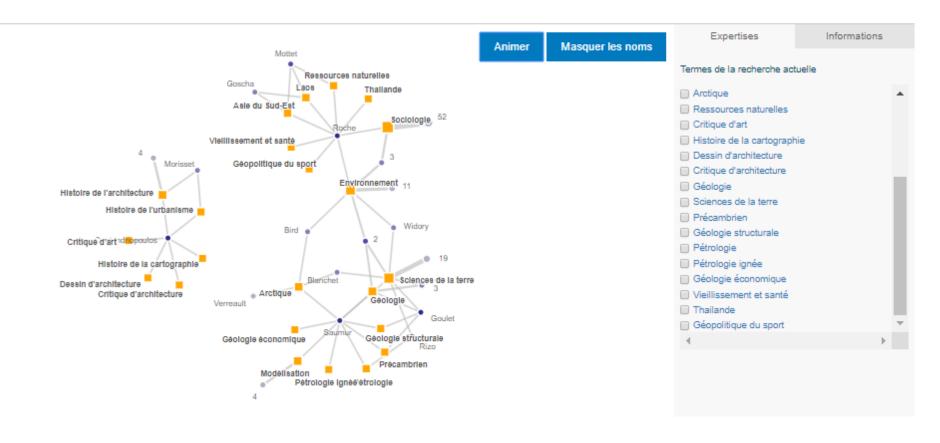
Bienvenue sur la cartographie des expertises des professeur(e)s de l'UQAM.

cartographie

Chercher

Vider

Aide à l'utilisation



what is done, and what needs to be done

The VIVO i18n internationalization task force has established the roadmap to achieve this goal:

- Phase 1 read-only support of public pages (done)
- Phase 2 read-write support of profile pages: users will be able to edit languagespecific data in profile pages.
- Phase 3 administrative pages: creating user accounts, manipulating RDF data and other administrative functions. This is a "nice-to-have"
- Phase 4 will support "back-end" pages used to edit the ontology, or to do low-level editing on individual entities.



decoupling

Decoupling is a key idea in VIVO Conference 2019:

- decoupling the frontend and the backend
- decoupling the application and the ontology

With i18n: decoupling the languages and the application

 so we have the flexibility to use any language, as separate language files are called at the initialization



where should be the language strings

- language in the data model: RDF include multiple labels for a single individual, each with a language specifier. If language filtering is enabled, VIVO will display the value that matches the user's preference.
- language in VIVO pages / interface: mechanism for managing them is based on the Java language's built-in i18n framework: the Java i18n framework has access to properties files which are loaded during program execution as needed

(source: i18n task force)



Resources and links

VIVO I18n requirements document

Wiki

https://wiki.duraspace.org/display/VIVO/Internationalization+Task+Forcehttps://wiki.duraspace.org/display/VIVODOC110x/Internationalization

VIVO Slack channel

Langage files on Github

- https://github.com/vivo-project/Vitro-languages
- https://github.com/vivo-project/VIVO-languages

