

A Sustainable and Open Access Knowledge Organization Model

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Outline

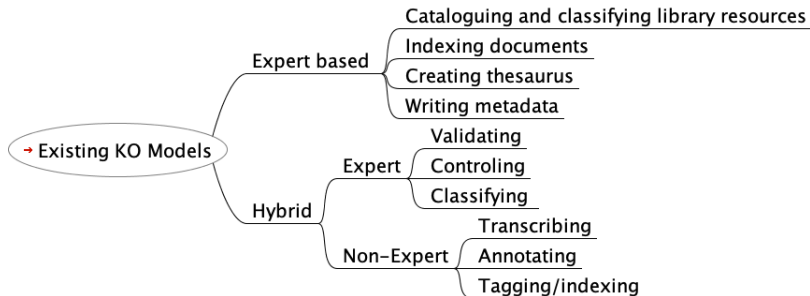
- 1 Introduction
- 2 Our Model
- 3 Model Implementation
- 4 conclusion

Outline

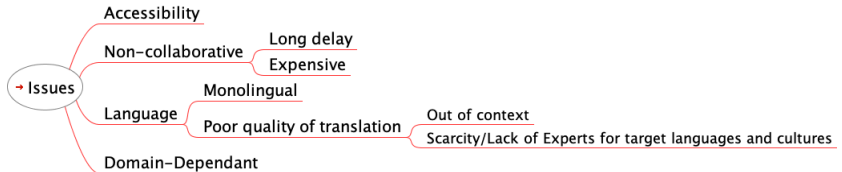
Knowledge Organization Systems (KOS)

- Existing KO Models
- Issues
- Objectives
- Our Model

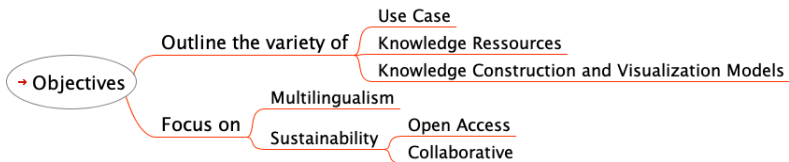
Existing KO Models



Issues



Objectives



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Our Model

→ Our Model

Interactive Knowledge Sharing Process

Collaborative and Inclusive Knowledge Curation Processes

New Paradigm for a Sustainable Knowledge Organization Model

- Approach :
 - **Intercative, In Context, Inclusive and Collaborative Knowledge Creation and Sharing** : involving end users in the Knowledge Organization process in an efficient and dynamic way :
 - while using the knowledge system, volunteers and contributors who know the local culture and language can participate by adding missed knowledge about a given translation of an original work.

Model Description

We define global knowledge GK about an original work ow as a set of knowledge k about different translations of ow :

$$GK_{ow} = \{K_{ow}^{t_1}, K_{ow}^{t_2}, \dots, K_{ow}^{t_n}\} \quad (1)$$

where a knowledge $K_{ow}^{t_i}$ about a given translation t_i is a set of key properties as :

$$K_{ow}^{t_i} = \{title, target_language, source_language, translator_name, publication_date, editor, full_text, comments\} \quad (2)$$

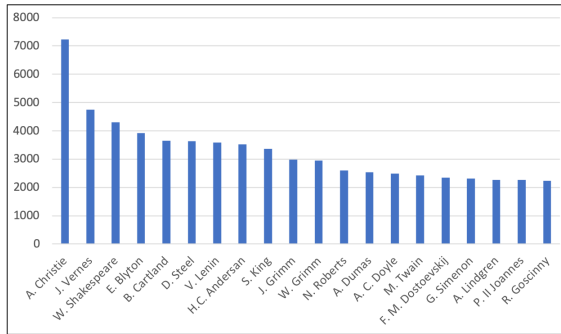
First Use case : Translated litteray work

Why?

- The World's cultural and knowledge heritage is shared by being translated
- Our model is created with the aim to recognize the fact that every body of knowledge is impacted **locally** as it is both written and read in a **specific context and culture**
- **Not confined to a specific domain**
- Use of a **very broad vocabulary** linked to every day life : **valuable asset for under-resourced cultures and languages currently lacking such computational resources**

Translated literary texts : a precious resource

- Several versions are **available in the public domain** and therefore readily available for research
- Agatha Christie has the distinction of being the world's most-translated author with 7233 translations—almost 3000 more than the next most popular, Jules Verne.



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The Crowdsourcing experiment



The screenshot shows the Figure Eight website interface. At the top left is the 'figure eight' logo. To its right are navigation tabs: 'YOUR JOBS' (which is underlined), 'TEAM JOBS', 'PROJECTS', and 'MODELS'. Below the navigation is a search bar with the text 'Search Jobs' and an 'Options' button. To the right of the search bar is a 'FILTER' dropdown menu currently set to 'All Jobs'. Below the search bar is a table header with columns: 'TITLE', 'PROJECT', and 'TAGS'. The first row of the table contains a checkbox, the text '1366180 | Url Collection Of Huckleberry Finn Translations' followed by a small blue circle with an 'i', and '23 rows' below it.

- We used the **Figure-Eight** platform
- Settings :
 - not restriction on the geographic location of the contributors : open call over the world
 - Each task consisted of a set of 9 questions (units)
 - price fixed to 0.25 \$ (instead of 0.15 \$ recommended by Figure-Eigh)

The Figure-Eight task design

Content

DATA | `{{title}}` `{{city}}` `{{state}}` `{{address_1}}`

 Edit  Delete

The title of the translated version: **Aventurat e Hekelber Finit**

Editor name: **Tiranë: Argeta LMG [Albania]**

Language: **Albanian**

QUESTION | multiple choice

Can you find the digital version of this translation ?

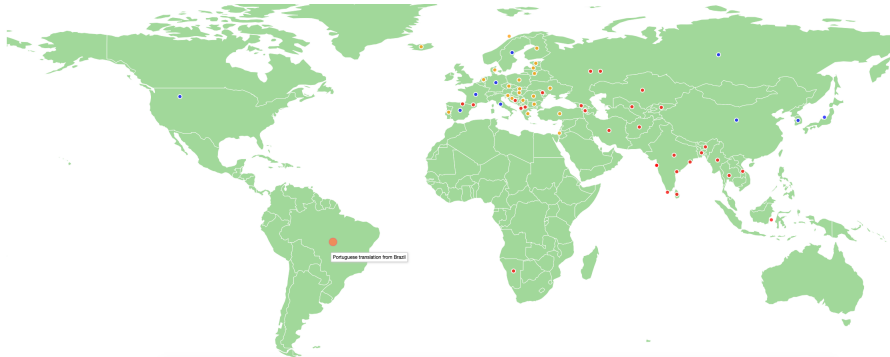
Yes

No

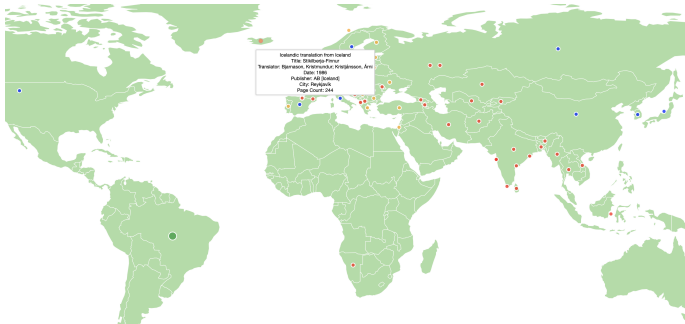
Is Yes



The Interactive Global Knowledge Map



The Interactive Global Knowledge Map



English-Polish Sentence Alignment

Sentence alignment based on the aligned paragraphs

English	Polish	Polish to English by Google Translate
Now the way that the book winds up, is this: Tom and me found the money that the robbers hid in the cave, and it made us rich. We got six thousand dollars apiece—all gold.	Muszę państwu powiedzieć, że ja i Tomek Sawyer, mój przyjaciel, znaleźliśmy pieniądze, które rabusie ukryli byli w jaskini, i to nas zбогacіto.	<i>I have to tell you that me and Tom Sawyer, my friend, found the money that the robbers were hiding in the cave, and that has enriched us.</i>
It was an awful sight of money when it was piled up.	Dostaliśmy każdy po sześć tysięcy talarów, samem złotem.	<i>We got six thousand thalers each, gold alone.</i>
Well, Judge Thatcher, he took it and put it out at interest, and it fetched us a dollar a day apiece, all the year round—more than a body could tell what to do with.	Otóż sędzia Thalecher wziął je i oddał na procent, co nam przynosiło każdemu po dolarze dziennie, przez rok cały.	<i>Well, Judge Thalecher took it and gave it back at interest, which brought us a dollar each day for a whole year.</i>
The Widow Douglas, she took me for her son, and allowed she would sivilize me; but it was rough living in the house all the time, considering how dismal regular and decent the widow was in all her ways; and so when I couldn't stand it no longer, I lit out. I got into my old rags, and my sugar-hogshead again, and was free and satisfied.	Wdowa Douglas'owa wzięła mnie do siebie za syna i obiecała, że mnie ucivilizuje; ciężko jednak było wytrwać w tym domu, tak okropnie porządną i przyzwoitą była wdowa i wszystkie jej postęпки. To też ile razy nie mogłem wytrzymać, wymykałem się, włożywszy na siebie stare fachmany i kapelusz od głowy cukru; czułem się całkiem swobodny.	<i>The Widow of Douglas took me as her son and promised to make me civilized; But it was hard to persevere in this house, so terribly decent and decent was the widow and all her actions. It was also how many times I could not stand it, I slipped away, putting on old rags and a hat from the head of sugar; I felt quite free.</i>
But Tom Sawyer, he hunted me up and said he was going to start a band of robbers, and I might join if I would go back to the widow and be respectable.	Tomek Sawyer zawsze mi obiecywał, że zebrawszy bandę rozbójników i stanąwszy na jej czele, przyłączy mnie do niej, bylebym tylko pozostał u wdowy i porządne wiódł życie.	<i>Tomek Sawyer always promised me that he would gather a band of brigands and, at the head of it, he would join me, so that he would remain at the widow's place and lead a decent life.</i>



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Future Work

- Enrichment of the multilingual corpus to include other types of documents
- Building multilingual terminologies
- Mapping the text's circulation
- Setting up international partnerships for the preservation of endangered knowledge

Thank you !