



# The Big Picture View on Translation Technology

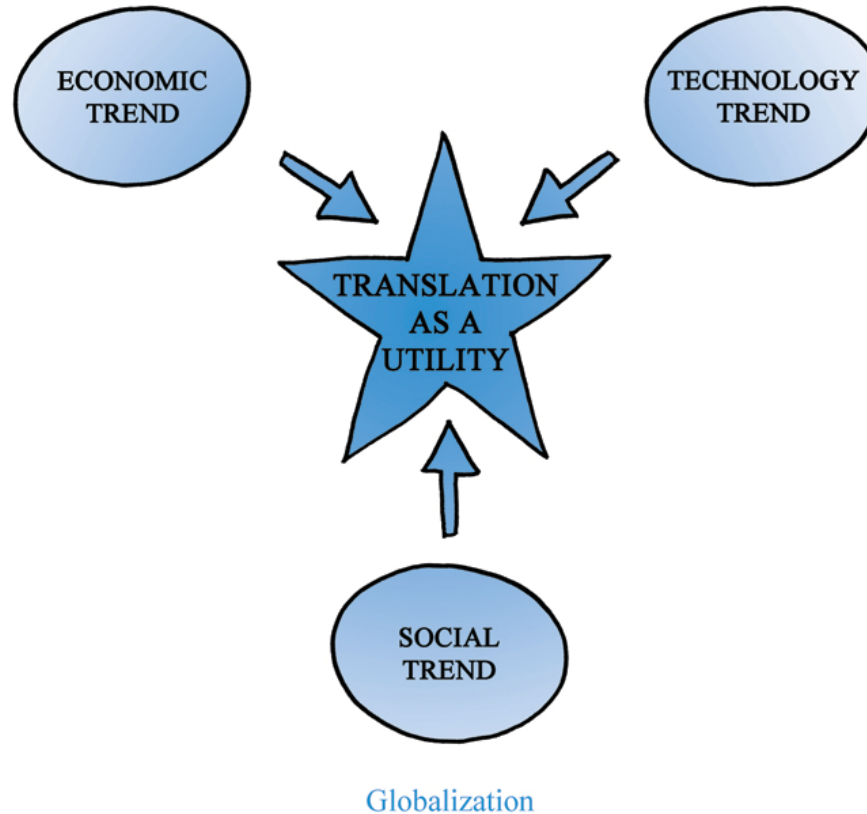
*Rahzeb Choudhury*

**TAUS**














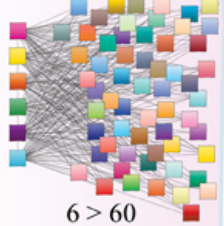

# From Luxury to Commodity to Utility

Global growth driven  
by emerging markets

Data driven  
machine translation

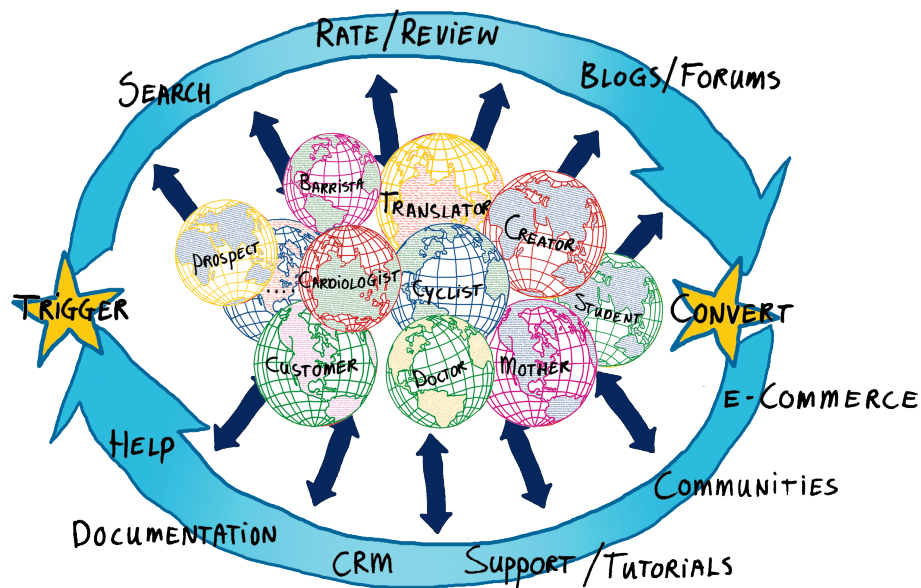


# Translation Industry Diversifies

	1980 TRANSLATION	1990 LOCALIZATION	2000 GLOBALIZATION	2010 INTEGRATION	2020 CONVERGENCE
TRANSLATION INDUSTRY FOCUS	 Documents	 Software	 Simship	 Integration in enterprise systems	 Embedded in every app, on every screen
TYPE OF CONTENT TRANSLATED	 Paper	 Digital	 Static Web	 Dynamic Web	 Personalized
LANGUAGES	 From Source to Target 1 > 10	 1 > 25	 1 > 40	 6 > 60	 150 > 150
TRANSLATION SUPPORT					
TOOLS	NA	TM and terminology software	Workflow (GMS)	MT and Advanced Leveraging	Real-time customized MT
RESOURCES	Glossaries	Project translation memories	Centralized corporate TMs	Limited shared data	Unlimited big data

# Convergence

- Translation technology converges with search, speech, knowledge management
- Functional convergence across departments, supply chain, as MT in particular is increasingly embedded

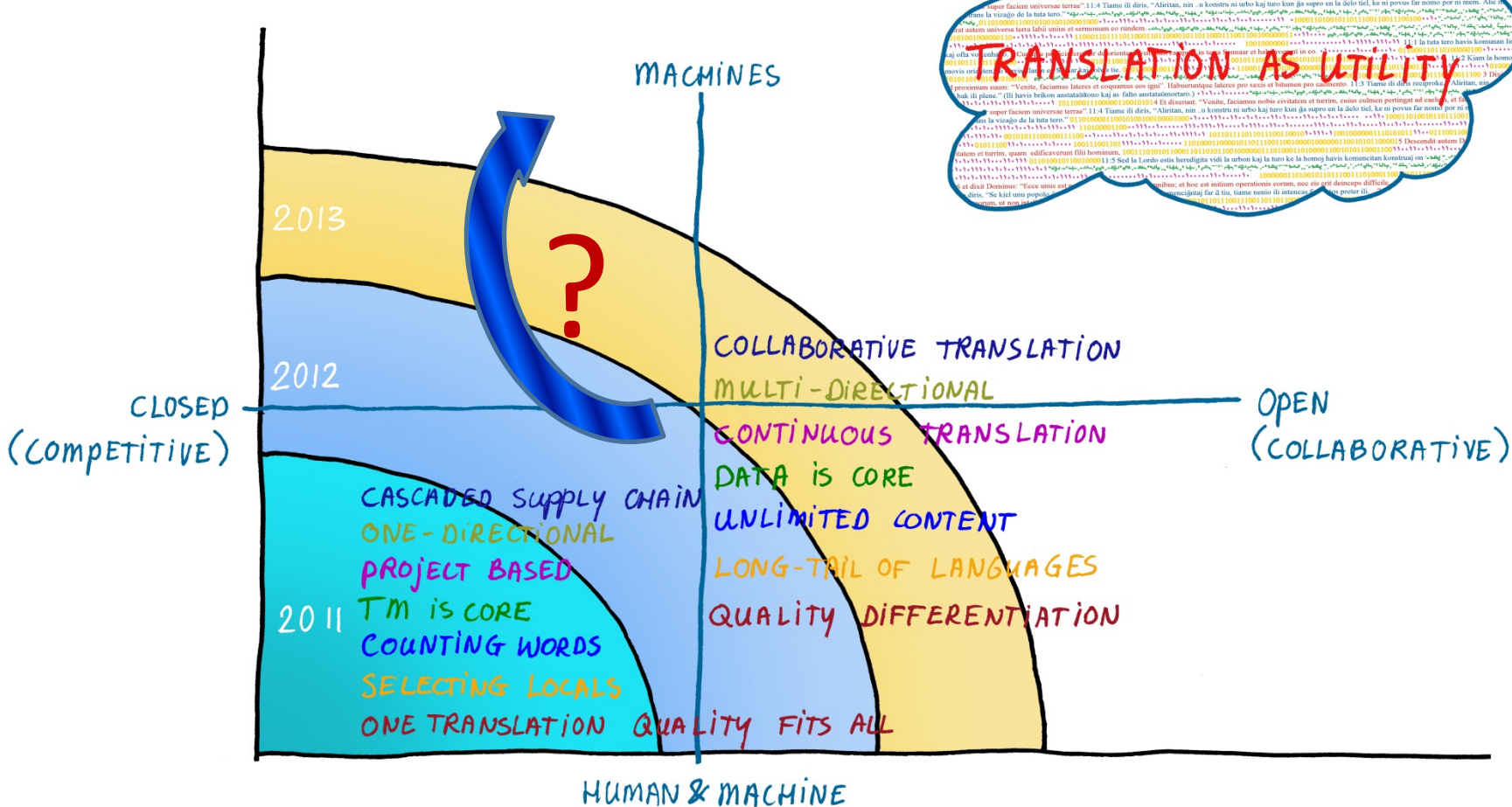


Source: TAUS Translation Technology Landscape Report (April, 2013)

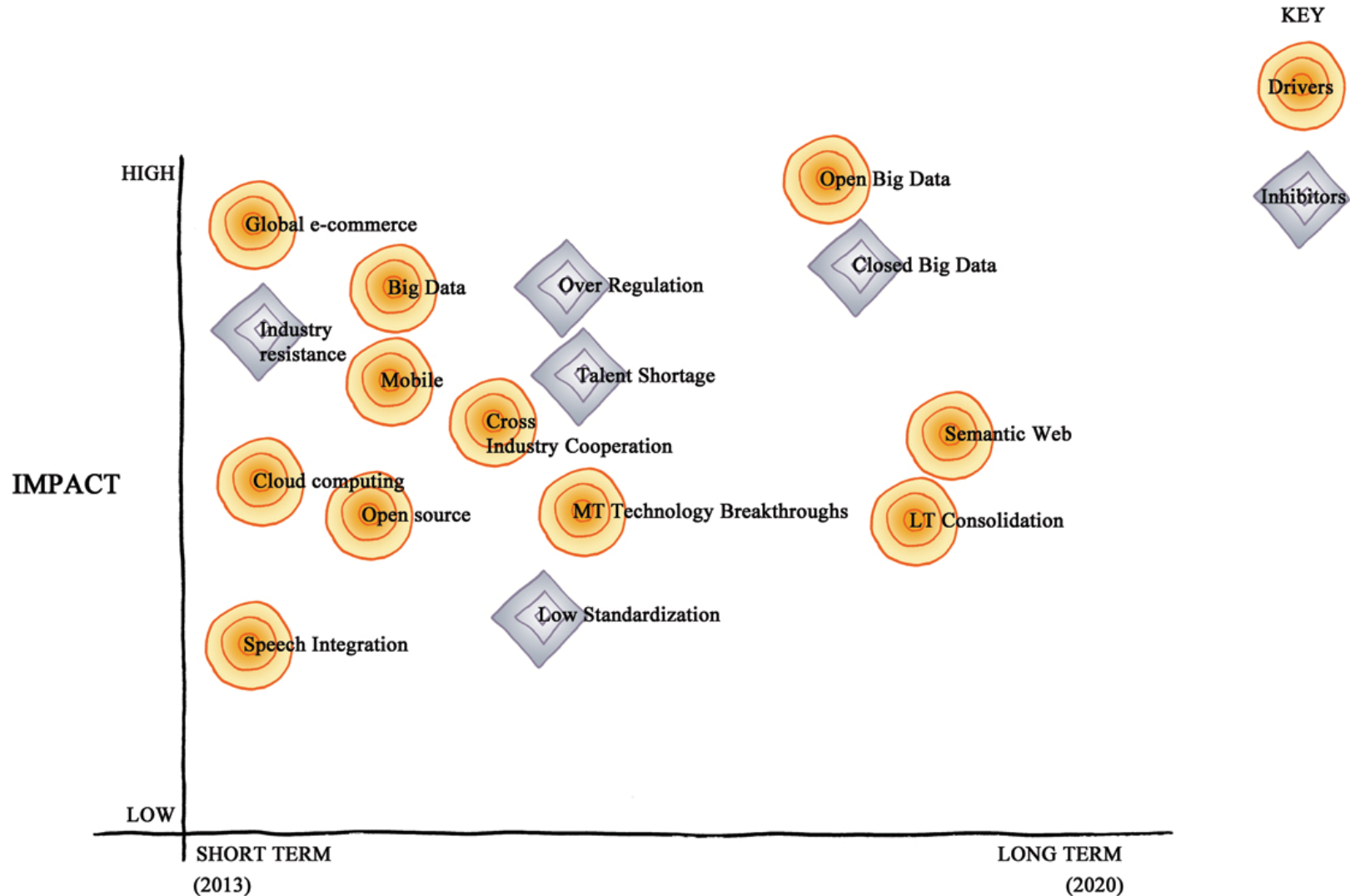


# Open or Closed Translation Future

## STRATEGIC DIRECTION



# Drivers and Inhibitors



Source: TAUS Translation Technology Landscape Report (April, 2013)



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# TAUS Overview



## Think Tank (since 2005)

- Reports, Best Practices
- Research, Directories
- Events, User Forums
- Workshops

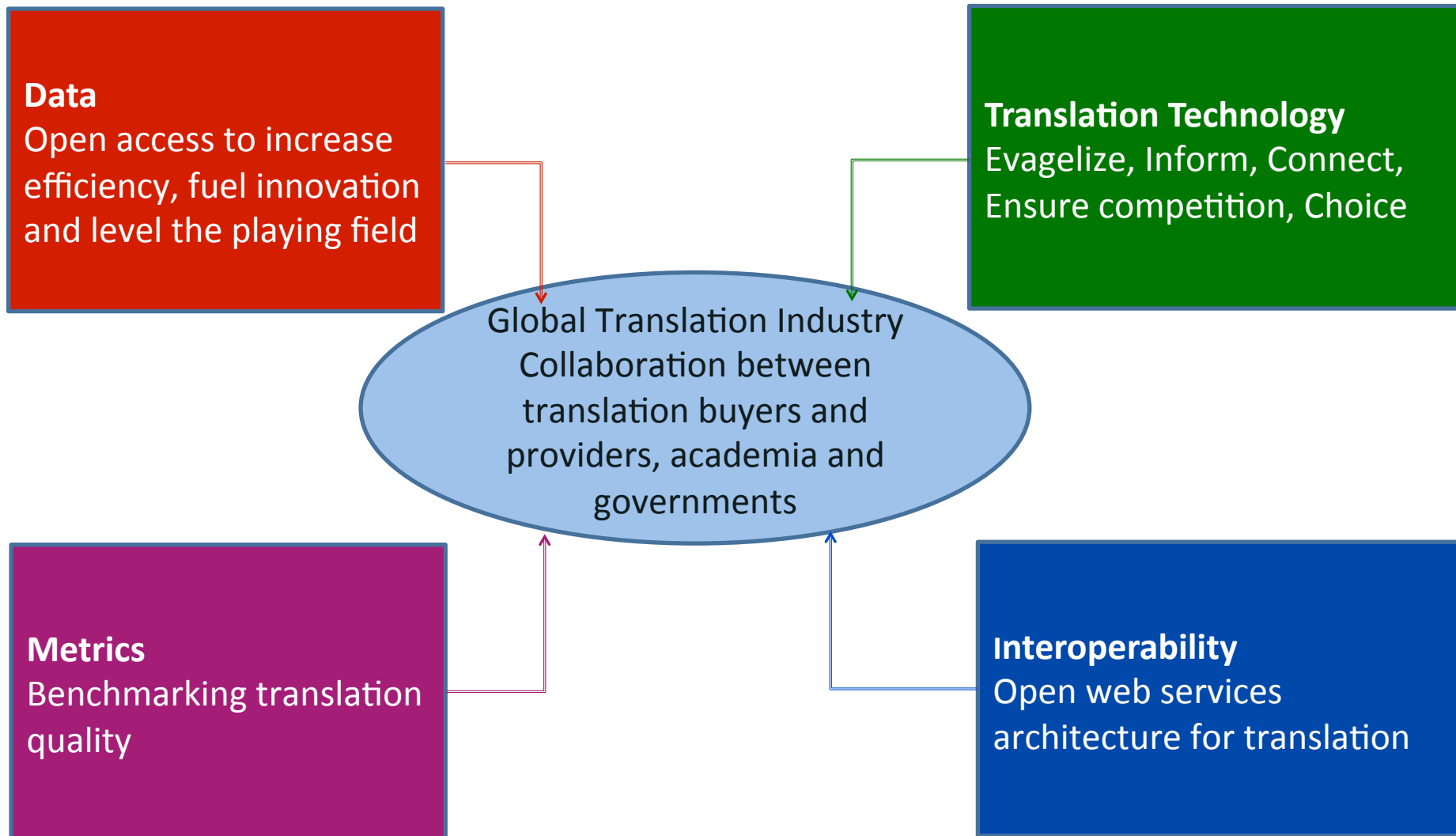
*Pushing the industry agenda and sharing knowledge*

## Industry-Shared Services

1. **Technology:** Promoting MT (since 2006)
2. **Data:** Sharing Translation Data (since 2008)
3. **Interoperability:** Translation API (since 2011)
4. **Metrics:** Dynamic Quality Framework (since 2011)

*Reducing costs and enabling innovation and efficiency for members and beyond*

# TAUS Action Lines





# Members



- ABOUT
- MEMBERSHIP
- STANDARDS
- RESOURCES
- EVENTS
- LANGUAGE DATA
- LABS
- DIRECTORIES
- MY TAUS

You are here: [Home](#) > [Membership](#) > [Member Directory](#)



## MEMBER DIRECTORY

Why become a member >

Member Directory >

Types and Options >

Application >

Testimonials >

- GLOBAL
- GOVERNMENTS & NGO's
- LARGE CORPORATE
- SMALL CORPORATE
- AGENCIES
- ACADEMIC

[Charles University](#)

[John Hopkins University](#)

[Dublin City University](#)

[University of Helsinki](#)

### ABOUT

- [Mission Statement](#)
- [Milestones](#)
- [The Team](#)
- [Advisory Board](#)
- [Office Location](#)

### MEMBERSHIP

- [Testimonials](#)
- [Types and Options](#)
- [Application Form](#)

### RESOURCES

- [Glossary](#)
- [Latest Articles](#)
- [Latest Reports](#)
- [Multimedia](#)
- [Signature Series](#)

### EVENTS

- [Calendar](#)
- [Past Events](#)
- [Awards](#)

### DATA

- [TAUS Search](#)
- [Data Count](#)
- [Download Data](#)
- [TAUS Data API](#)
- [Widget](#)

### NEWS

- [Latest News](#)
- [Newsletter Archive](#)

### DIRECTORIES

- [Membership](#)
- [Machine Translation](#)
- [Translation Memory](#)
- [Other Language Technology](#)

### LABS

- [Moses Tutorial](#)
- [MT FAQ](#)
- [Dynamic Quality Framework](#)
- [Translation Services API](#)

### JOIN MAILING LIST

### FOLLOW US

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- [Google+](#)
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# Data: Opening Access

The screenshot displays the TAUS website interface. At the top, the TAUS logo is accompanied by the tagline "Enabling better translation". A navigation menu includes links for ABOUT, MEMBERSHIP, STANDARDS, RESOURCES, EVENTS, LANGUAGE DATA, LABS, DIRECTORIES, and MY TAUS. A search bar is located in the top right corner.

The main content area features a breadcrumb trail: "You are here: Home > Resources > Publications > Articles > Clarifying Copyright on Translation Data". Below this, the article title "CLARIFYING COPYRIGHT ON TRANSLATION DATA" is prominently displayed, along with its creation date: "Created on 16 January 2013".

The article's main heading is "A world without language barriers". The text discusses the potential for a world without language barriers within 10 to 15 years, emphasizing the need for a coordinated effort between governments, businesses, and academia. It introduces the Human Language Project, which aims to achieve sufficient adequacy and fluency in fully automatic translation for global citizens.

The article also mentions two other articles of interest: one calling on legislators and policy makers to address copyright law for translation data, and another focusing on defining and framing this mega-project.

A sub-heading "Let's make translation easier" is followed by a paragraph about the French president François Hollande's demand that the Dutch return borrowed words from French to Dutch, such as 'dossier', 'portefeuille', and 'ordinaire'.

On the left side of the page, there is a sidebar with a "DATA Human Language Project" logo and a "HOME" button. Below this, a "TAUS S Improve" section lists various resources like "Getting Started", "Glossary", "Publications", "Reports", "Articles", "Other", "Guidelines", "Collaborative Translation", "Signature Series", and "Multimedia".

At the bottom of the page, there are four main navigation links: "About Us", "Membership", "Technology", and "About TAUS".

# Technology: Promoting Automation



Hi Rahzeb Choudhury,

[Log out](#)

[DYNAMIC QUALITY](#)

[INTEROPERABILITY](#)

[MACHINE TRANSLATION](#)

[Home](#) > [Machine Translation](#) > [MosesCore](#) > [Machine Translation](#) > [TAUS Machine Translation and Moses Tutorial](#)

[About MT](#)

## TAUS MACHINE TRANSLATION AND MOSES TUTORIAL

[MosesCore](#)

[▶ MT & Moses Tutorial](#)

[▶ Newsletters](#)

[▶ Resources](#)

[Developing Talent](#)

[Research Papers](#)

[MT FAQs](#)

[Translation Automation Timeline](#)

[Getting Started](#)

**[Principles of MT](#)**

[Data](#)

[Training Systems](#)

[Evaluating Output](#)

[Integration](#)

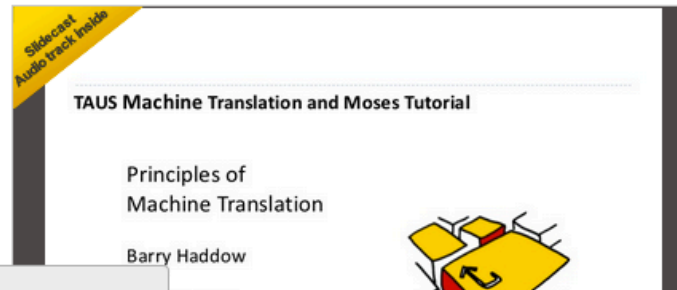
[Use Cases](#)

[Useful Resources](#)

[Bios](#)

### Principles of Machine Translation

This presentation provides a brief overview of the history of machine translation and the approaches that were developed during that history. It then focuses on statistical machine translation including its different flavors, the process of training an SMT system with training data and the decoding process to perform translations.

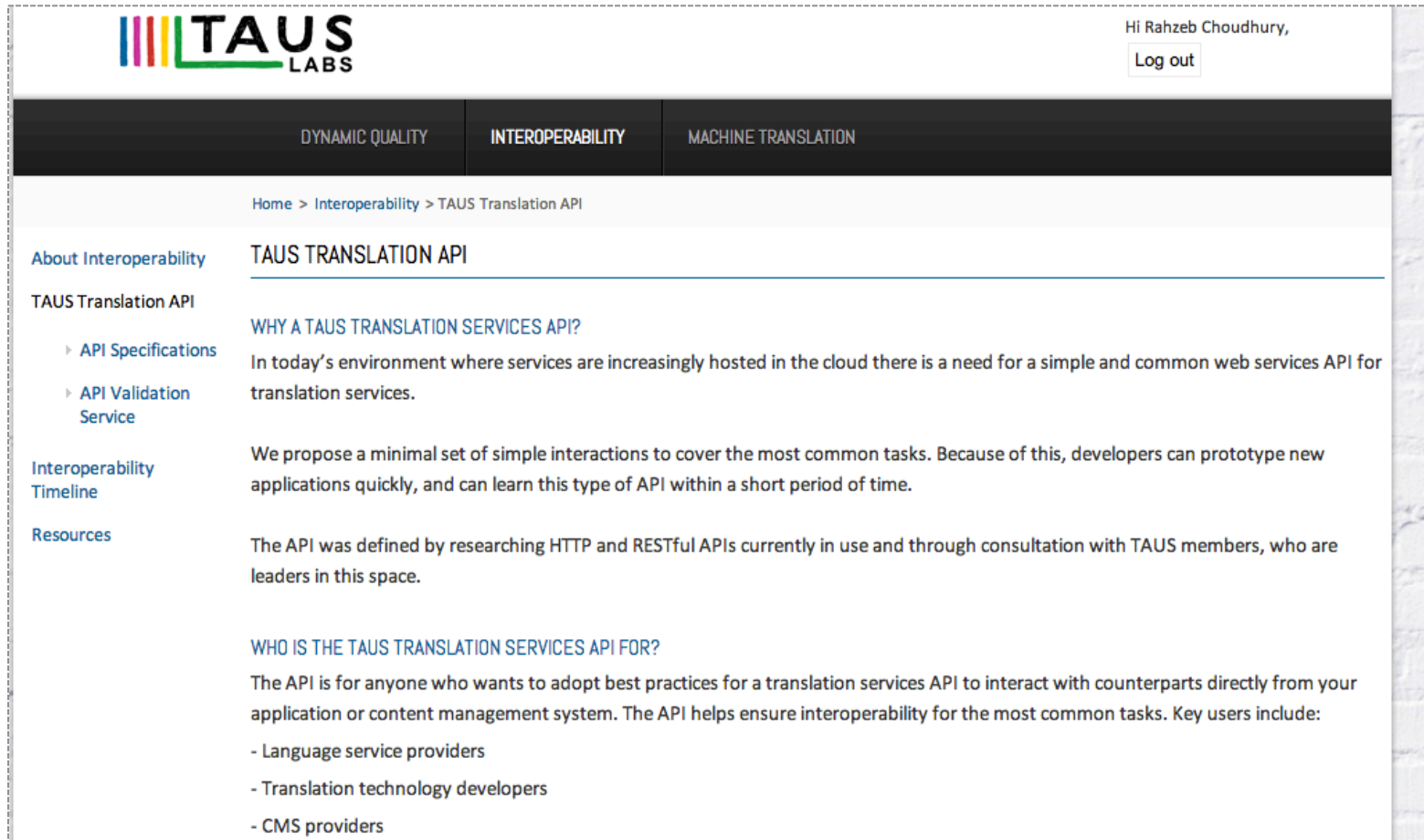


• [University of Amsterdam \(Universiteit van Amsterdam\), The Netherlands](#)

• [University of Edinburgh, UK](#)

• [University of Geneva, Switzerland](#)

# Interoperability: Translation API



The screenshot shows the TAUS Labs website interface. At the top left is the TAUS Labs logo. At the top right, a user is logged in as "Hi Rahzeb Choudhury," with a "Log out" button. Below the logo is a navigation bar with three tabs: "DYNAMIC QUALITY", "INTEROPERABILITY" (which is selected), and "MACHINE TRANSLATION". Below the navigation bar is a breadcrumb trail: "Home > Interoperability > TAUS Translation API". The main content area is divided into a left sidebar and a main column. The sidebar contains links for "About Interoperability", "TAUS Translation API" (with sub-links for "API Specifications" and "API Validation Service"), "Interoperability Timeline", and "Resources". The main column displays the "TAUS TRANSLATION API" page content, including a section titled "WHY A TAUS TRANSLATION SERVICES API?" with a paragraph explaining the need for a simple and common web services API for translation services. It also includes a paragraph stating that the API is designed to cover common tasks and can be learned quickly. A section titled "WHO IS THE TAUS TRANSLATION SERVICES API FOR?" lists key users: language service providers, translation technology developers, and CMS providers.

TAUS LABS

Hi Rahzeb Choudhury,  
Log out

DYNAMIC QUALITY INTEROPERABILITY MACHINE TRANSLATION

Home > Interoperability > TAUS Translation API

About Interoperability

TAUS Translation API

- API Specifications
- API Validation Service

Interoperability Timeline

Resources

## TAUS TRANSLATION API

### WHY A TAUS TRANSLATION SERVICES API?

In today's environment where services are increasingly hosted in the cloud there is a need for a simple and common web services API for translation services.

We propose a minimal set of simple interactions to cover the most common tasks. Because of this, developers can prototype new applications quickly, and can learn this type of API within a short period of time.

The API was defined by researching HTTP and RESTful APIs currently in use and through consultation with TAUS members, who are leaders in this space.

### WHO IS THE TAUS TRANSLATION SERVICES API FOR?

The API is for anyone who wants to adopt best practices for a translation services API to interact with counterparts directly from your application or content management system. The API helps ensure interoperability for the most common tasks. Key users include:

- Language service providers
- Translation technology developers
- CMS providers

# Metrics: Towards Benchmarking

The screenshot displays the TAUS Labs DQF Tools website. At the top left is the TAUS Labs logo, and at the top right, it says "Welcome Rahzeb Choudhury" with a "Logout" link. A navigation bar contains "Home", "Projects", and "Reports" buttons. A yellow banner reads "You have successfully logged in." Below this is a "WELCOME" section with introductory text and four action buttons: "Getting started", "Create project", "Edit projects", and "View reports". A right-hand sidebar lists "Getting Started", "Evaluation Types" (Productivity Testing, Ranking Engines, Adequacy, Fluency, Error Typology), and "Accepted File Types" (CSV, TMX). The bottom part of the image shows a "USABILITY" article snippet with a "Recommend QE models" button. A footer note mentions the site's origin at a TAUS workshop in Santa Clara, California, in October 2011, maintained by Alain Desilets. The TAUS logo is in the bottom right corner.

Welcome Rahzeb Choudhury | [Logout](#)

**TAUS LABS** DQF TOOLS

Home Projects Reports

You have successfully logged in.

**WELCOME**

The TAUS Dynamic Quality Framework tools enable members to **measure MT productivity**, **rank MT engines**, evaluate **adequacy**, **fluency** and/or undertake **error typology** review.

Members benefit from applying industry best practice processes, automated tools and reports. All resulting data can be downloaded to create customized reports.

[+ Getting started](#) [+ Create project](#)

[+ Edit projects](#) [+ View reports](#)

**WELCOME**

**Getting Started**

**Evaluation Types**

- Productivity Testing
- Ranking Engines
- Adequacy
- Fluency
- Error Typology

**Accepted File Types**

- CSV
- TMX

**USABILITY** Together with 16 of its enterprise members TAUS has developed a dynamic approach to QE. Variable factors like the

This involves the testing of translated content for usability. It can be achieved through a number of devices... [View Details](#)

[Recommend QE models](#)

The initial content for the Collaborative Translation Patterns wiki site was created at a TAUS workshop in Santa Clara, California (USA) in October 2011. The site is maintained by Alain Desilets.

**TAUS**

# Shared Vision, Concrete Results

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TAUS is an innovation think tank and platform for industry-shared services, resources and research for the translation sector globally.

We envision translation as a standard feature, a ubiquitous service. Like the Internet, electricity, and water, translation is one of the basic needs of human civilization.

Our mission is to increase the size and significance of the translation industry to help the world communicate better.

We support entrepreneurs and principals in the translation industry to share and define new strategies through a comprehensive range of events, publications and knowledge tools.

