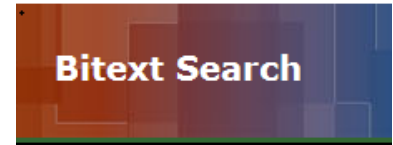


Bitext and Analyzer



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Organisation: Translation Bureau (Public Works and Government Services)

Country: Canada

Level of government: Central government

Sector: General public services, Recreation, culture and religion

Type: Digital, Public Service

Launched in: 2010

Overall development time: 18 months

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Description

The Bitext and the Analyzer are two modules of the Translation Bureau's Technolinguistic Toolbox that provides Translation Bureau employees with an integrated language ecosystem that automates the processing of a translation request and optimises the administrative and professional workflows. The innovative tools are contributing to Bureau employees' efficiency and productivity, as well as improving client services, essential benefits in today's competitive environment and overall challenging times.

Bitext is a powerful, customisable search engine available to all Translation Bureau translators and revisers. It is integrated with the Bureau's 4.2 billion word mega corpus of previously translated documents and provides translators and revisers with a quick, easy and reliable way to find previously translated material. Translators and revisers can search for exact and approximate matches, learn what client and what specific document the previously translated material belongs to, and follow a link to the actual context in that document. The mega corpus replaces 434 individual databases and feeds all other systems, including Analyzer.

Analyzer automatically processes 90% of texts as they arrive through the Bureau's online ordering system. It assigns a file number, offers exact or approximate matches (from the mega corpus) for segments of text, performs an accurate and consistent word count, and creates a file structure on the common drive. Analyzer also calculates the translation time saved as a result of its finding segment matches. All translators and revisers have access to the report that Analyzer produces and can use the segment matches for their translations. The analysis of those reports makes it easier to do resource planning and to estimate the level of effort required for each translation request.

Why the innovation was developed

- To replace expensive legacy products that were nearing the end of their life cycle.
 - To improve the standardisation and quality of translations.
 - To identify requirements for new tools and to act as a prototype for another tool.
 - To achieve cost savings for the Bureau so that it could reduce the Government of Canada's translation costs, and ultimately costs to taxpayers.
 - To streamline the translation process to reduce turnaround times and work effort, and to standardise repetitive administrative tasks.
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Objectives

Develop staff capacity, Improve efficiency, Improve service quality, Improve social equity, Improve user satisfaction

- To make translating easier for professional translators and revisers by reducing the time and effort needed for research.
 - To improve translation quality and standardisation, which are increasingly important in a global economy by re-using or adapting previously translated documents.
 - To process translations more efficiently by automating repetitive tasks.
 - To enhance service delivery.
 - To promote optimal usage of tools available to translators, revisers and administrative personnel.
 - To make the Translation Bureau and Canada a world leader in language technology.
 - To share a modified version of these tools the desktops of all Government of Canada employees to help them work and communicate more effectively in both official languages, English and French.
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Main beneficiaries

Civil Society, General population, Government bodies, Government staff

- 35 million Canadians benefit from high-quality, standardised translations.
- 120 departments and agencies benefit from high-quality texts that are standardised based on their unique needs, in the time requested; from having peace of mind knowing that they are meeting their official languages obligations; and from achieving significant savings because of more efficient processing.
- 850 translators and revisers benefit from Bitext because they can find results quickly, spend less time researching and can reuse or adapt existing high-quality translations.
- 150 client advisors and receptionists benefit because Analyzer reduces their workload by automating and standardising the most repetitive administrative tasks.
- The Translation Bureau benefits because these tools help produce high-quality translations and make processing translations more efficient, which significantly reduces internal processing costs.
- The Government of Canada benefits because it can standardise terminology, provide high-quality translations and reduce translation costs to better serve Canadians.

Results

Efficiency

- Because of the ability to re-use previously translated material and because repetitive administrative processes have been automated, overall business efficiency improved by 4% in 2010-11 and by 12% in 2013-14.
 - The time required to translate the same number of words was reduced by 12% in 2012-13 and by 18% in 2013-14.
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Effectiveness

- In December 2011, fewer than 250 000 exact matches were found; in 2014, that number increased to over 1.5 million.
 - In 2012, fewer than 20% of translation requests were processed using Analyzer; in 2014, more than 90% were processed. This allowed the Translation Bureau to identify and realise significant time savings. Reports show over 300 000 hours of gains in time spent on translation for 2013-2014. These time savings allowed the Bureau to increase the capacity of internal translators while allowing attrition of employees and ensuring no impacts to service delivery.
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Service quality

Accessibility:

- Before: Individual databases were restricted to a certain number of translators.
- After: All translators have access to all content.

Responsiveness:

- Translators can customise Bitext to their preferences.

Reliability:

- Before: The client/server software was slow and unstable.
- After: It is now integrated, stable, fast and web-based.

Development

Design

The organisation identified long-term business requirements and consulted with employees. The Re-engineering team was also asked to come up with an innovative implementation approach.

Testing

- The organisation used pilot projects to test processes. Adjustments were made based on these projects.
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Implementation

Tools used:

- The organisation used an agile development and an incremental implementation approach. It changed the interface to make it more user-friendly and optimised or replaced back-end modules with no downtime for the user.

Resources used:

The Project Team has worked diligently to provide Bureau employees with an integrated state-of-the-art solution, and it has achieved its goal with the new technolinguistic tools, included in the language ecosystem. As a Web 2.0 solution that is based on a new architecture, the solution is the foundation for the Bureau's future. It has in fact been integrated in the existing, improved translation workflow and forms and integral part of the Bureau's language ecosystem.

- Cost of for Bitext over 4 years estimated at 1.5 million.
 - Cost of Analyzer over 4 years estimated at 1.6 million.
 - 3 FTEs over 4 years.
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Diffusion

- Because the tools are Web-based, they were deployed or updated overnight. This means that any fixes or improvements to the tools were automatically available to all users the next time they opened the session.
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Challenges and solutions

- As we increased the number of users, in a wave approach, the organisation had to improve the user-friendliness of the tools and increase their capacity.

Lessons Learned

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- All product releases should have clear release plans that include training plans, communication strategies and testing scripts.
 - Business owners should be identified from the beginning and be involved in the decision-making process.
 - Engagement and accountabilities should be maintained throughout transformational initiatives that affect the organizational structure to ensure business continuity.
 - This innovation represented a significant cultural change for the organisation. Although it was clear that the tools would greatly improve productivity and efficiency, they added to the level of change fatigue. A specific change management and communications strategy was developed and featured endorsement by "early adopters" of the tools. The organisation also started to discuss possible methods with which these tools could eventually be shared with the public service at large.
 - This raised further concerns that the Translation Bureau's future revenues could decrease if client departments have ways to do their own translation.
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Conditions for success

- Technical specifications must be aligned with business requirements to ensure horizontal adoption, changes must be managed effectively, and scope must be defined so that expectations are managed.
 - Performance indicators should be identified early on so that gains in efficiency can be measured accurately. Proper governance and senior executive buy-in and support are also key.
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