



**TRIEC**

Toronto Region Immigrant  
Employment Council

**New Realities. New Opportunities.**

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**Development of an E-learning Delivery Platform and Procurement of  
Learning Content Management System**

**SOFTWARE SYSTEM REQUIREMENTS SPECIFICATION**

January 28, 2011



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## 1. Introduction

### 1.1. Propose

This specification document provides an outline for a learning content management system that will be use by TRIEC to manage learning content and create interactive learning content to be deliver on a TRIEC e-learning delivery platform.

This Software Requirement Specification (SRS) describes the operational functions required.

### 1.2. Intended Audience and Reading Suggestions

This document will be used as the basis for the specification of a Request for Proposal (RFP) process to assist TRIEC with the selection of a vendor to provide e-learning delivery platform and a learning content management system.

It will then be used as the basis for more exhaustive requirement gathering sessions to be conducted by the successful bidder as part of the development or implementation and configuration process.

## 2. Project Description

### 2.1. Project Scope

The Toronto Region Immigrant Employment Council (TRIEC) creates and champions solutions to better integrate skilled immigrants in the Greater Toronto Region labour market. To improve the effective integration of skilled immigrants in the Toronto region, TRIEC collaborates with valuable stakeholders including all three levels of government, corporate partners, agencies and employers.

TRIEC has developed a collection of tools and resources to promote the effective recruitment, selection and integration of skilled immigrants in the Canadian workplace. This project intends to launch an e-learning platform which will enable TRIEC to:

- Leverage existing content to develop and deliver new, engaging, interactive and easy-to-use web-based learning modules, resources and tools.



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- Reach broader audiences by promoting and delivering content which can be easily embedded into other existing learning delivery systems currently used by partner organizations.
- Track and manage user data for ongoing program development and reporting purposes.
- Enhance administrative capacity to manage learning resources, evaluate learning effectiveness and facilitate cross-marketing of available learning resources.
- Ensure consistency of branding and content quality across delivery platforms / partners.

Within the scope of this project, we intend to:

- Launch a platform from which e-learning modules can be developed and delivered to learners.
- Convert content currently available in our workshops and on the [www.hireimmigrants.ca/tools](http://www.hireimmigrants.ca/tools) website into interactive user driven e-learning modules.

## 2.2. References

More information can be found at:

- [www.hireimmigrants.ca/tools](http://www.hireimmigrants.ca/tools)
- [www.triec.ca](http://www.triec.ca)



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## 3. System Features

### 1. Learning Content Management System (LCMS)

- 1.1. Integrated with LMS
- 1.2. SaaS delivery model
- 1.3. System is modular and scalable, allowing deployment of required functionalities as needed
- 1.4. Learning content can be created using existing videos, Microsoft Office (such as Word, PowerPoint, Excel and Visio) and web content (such as QuickTime, Adobe, and Flash) audio clip
- 1.5. Learning content can include high quality visuals and interactivity
- 1.6. Ability to distribute post evaluation questionnaires
- 1.7. Interactive review questions can be placed throughout the body of the course. Each question is linked to corresponding content screens so learner can easily review needed material and review answers
- 1.8. Content bookmarking provides learners with the ability to track and keep a list of learning content reviewed and or would like to review at a later time
- 1.9. Learning content library which are easy to use / search through
- 1.10. Customizable look and feel of learning content (colours, logos etc.)
- 1.11. Learning content can be edit and update by multiple users (TRIEC partner organizations and employers)
- 1.12. Import learning content from other sources. The ability to import learning content created by 3rd party authoring tool
- 1.13. The ability to integrate AICC or SCORM standards content built by employers
- 1.14. Utility to upload SCORM or AICC custom content without vendor assistance (content upload tool)
- 1.15. Interoperability with content that is not standards-compliant (i.e. PowerPoint)
- 1.16. Ability to add additional resources to any learning content without vendor assistance
- 1.17. Application/learning content can be personalized/branded
- 1.18. Survey creation and dynamic survey results
- 1.19. Authoring Environment: Windows Internet Explorer 7+, FireFox 3+, Netscape 7+, Safari 4+
- 1.20. Playback Environment: Windows Internet Explorer 7+, FireFox 3+, Netscape 7+, Safari 4+
- 1.21. Built-in content authoring tool
- 1.22. Built-in testing and survey creation engine

### 2. Administrative Functions

- 2.1. Web-based access to administrative features, data and reporting



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- 2.2. Registration confirmation via e-mail (send login and password to user)
- 2.3. Publish real time updates to learning events calendar
- 2.4. Activate/deactivate users from system
- 2.5. Create custom tests, surveys and opinion polls
- 2.6. Fully customizable security settings that allow administrators to set permission levels for individual users or groups
- 2.7. Collect user feedback and surveys (i.e. module evaluations)
- 2.8. Security (passwords and user IDs determine authentication)
- 2.9. Automated system to help users who have forgotten their password
- 2.10. Training is available to administrators and content creator

### **3. Interface**

- 3.1. Ability to provide an easily to manage TRIEC branded web base e-learning delivery platform
- 3.2. Ability to easily manage and create new pages for the e-learning delivery platform without vendor involvement
- 3.3. System allows configuration of the navigation easily without vendor involvement
- 3.4. Ability to easily create and manage sub e-learning delivery platform (within the TRIEC e-learning delivery platform) for corporate partners (employers) that allows unlimited number of pages without vendor involvement
- 3.5. Ability to easily create pages in the LMS that dynamically render content based on the user viewing the page without vendor involvement
- 3.6. Built in wizards to guide administrator on difficult tasks
- 3.7. System is modular, allowing deployment of only required functionality (turning on or off features and modules)
- 3.8. Integrated LCMS functionality
- 3.9. modifying and archiving resources
- 3.10. Ability to create and manage text and branding of the login page
- 3.11. Ability to create splash pages that appear for users upon initial login or next login to convey important notices
- 3.12. Customizable Contact Us page

### **4. User Features**

- 4.1. A calendar view for different roles to easily access learning events with the ability for user to select a specific view (day/week/year)
- 4.2. Forgotten password/change password automated responses
- 4.3. Change user name and password
- 4.4. Configurable amount of access to change profile information
- 4.5. Access eHelp (search for topic/context sensitive)

### **5. User Management**

- 5.1. Ability for a new learner to create an account



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- 5.2. Ability to create and manage user groups (administrator, employer content editor, learners)
- 5.3. Create, change and view user information/profile
- 5.4. Configurable permissions/roles - Create and manage new roles/permissions
- 5.5. Configurable standard and custom user fields in user profile screens
- 5.6. Configurable standard user fields and custom user fields
- 5.7. Set/change user status (i.e. active/inactive/deleted)
- 5.8. Security
  - Security (password and user IDs determine authentication)
  - Automated system to help users who have forgotten their passwords
  - IS integration and security
  - Login encryption/validation
  - Server-level user authentication
- 5.9. Hosting & Support
- 5.10. Software as a Service (SaaS)/hosted delivery model (course development, delivery, course and user database)
- 5.11. 12/7 user/technical support for administrator, content creator and learners
- 5.12. Hosted secure data and data back-up
- 5.13. Minimum bandwidth requirement to run application

## 6. Communication & Collaboration

- 6.1. Live webcasting and virtual meeting capabilities
- 6.2. Web-based calendar
- 6.3. Global broadcast messaging
- 6.4. Ability to subscribe to a email updates so that content updates are pushed to user
- 6.5. Automatic updates unsubscribe via email
- 6.6. Ability to send emails to user's email address listed in their profile
- 6.7. Built-in email messaging
- 6.8. Built-in notification system (e.g. system-wide and content-specific announcements)

## 7. Reporting

- 7.1. Web-based reporting interface with results appearing in application workspace
- 7.2. Ability to track learning content usage per user and provide analytics on overall content usage
- 7.3. Standard "out-of-the-box" reports
- 7.4. Ability to alter "out-of-the-box" reports
- 7.5. Option to use filters for reports instead of having to create a new report
- 7.6. Wizard-driven report creation (for custom/adhoc reports)
- 7.7. Ability to create drill down reports
- 7.8. Sort a report by fields (i.e. alphabetically or chronological)



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7.9. Ability to export report data (i.e. to Excel)

7.10. Report can be printed from application workspace without having to export



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## **8. Content**

- 8.1. Record synchronous learning events (webinars) and add these to online resource library
- 8.2. Can disable/archive a content or content modules without removing it from the LMS
- 8.3. The option to host videos on content server or on 3<sup>rd</sup> party hosting server
- 8.4. Ability to integrate components into other platforms via APIs
- 8.5. Searchable online library of electronic documents (Word, Excel, PPT, PDF, website links, etc.)
- 8.6. Separate databases for course delivery / development
- 8.7. Resources can be restricted to a particular audience based on user attribute or group association

## **9. Content development and management**

- 9.1. Easy to use content development tool WYSIWYG (what you see is what you get), which does not require user (course developer, administrator) to have specialized programming or technical knowledge
- 9.2. Searchable RLO repository
- 9.3. Reusable online asset repository
- 9.4. Built-in model for creating learning objects
- 9.5. Branching and scenario-based support
- 9.6. Learning objects, events, and resources are searchable
- 9.7. Allow content development through browser and/or local client with no plugins
- 9.8. System provided template library
- 9.9. Ability to create custom templates (template repository)
- 9.10. Plug-in detection feature
- 9.11. External documents/web sites can be added as pages or knowledge files in course
- 9.12. Content metadata tagging
- 9.13. Permission-based system
- 9.14. Media asset management
- 9.15. Output formats:
  - Export to xHTML, JS, XML, DHTML
  - Export to stand alone or packaged Flash
  - Export and access content as XML
  - Publish for offline/desktop (no sync)
  - Publish for online delivery
  - Publish to print formant
  - Podcast Player and RSS feeds
- 9.16. Support for authoring with other media formats:



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- Audio (mp3), Video (wmv, swf), Animation/Flash, HTML, Java, MS-PowerPoint, MS-Word, PDF
- 9.17. Standards support
- CSS 1/2, xHTML, XML, SCORM 1.2, SCORM 2004 (2nd and 3rd edition), AICC

## **10. Search Features**

- 10.1. Universal search functionality that searches all learning content items such as courses, resources, videos, documents, links, websites, etc.
- 10.2. Search interface is clean and easy to use - matches the most popular search engine's design.
- 10.3. Search functionality returns results in an easy to use combined results view like the most widely used search engines.
- 10.4. Search functionality filters results based on what the user has permission to view/consume
- 10.5. Learner can search for learning resources