QTI 3.0 and Proctoring

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• Question & Test Interoperability
  • The definitive open standard for assessment content and related (results & usage) data exchange
  • An Information Model at the Core (data at rest)

• With a very long history...
  • First version launched in 1999
  • QTI 1.2 launched in 2002
    • Still in use by many LMSs today
  • QTI 2.1 launched in 2012
    • Incorporated HTML elements
  • APIP & PNP launched in 2014
    • Focus on Accessibility
  • QTI 3 Public Candidate Final available since August 2020!
    • Focus on rendering & consolidation

• Adoption: few official certifications (20-30)
  • But many conformance claims...
  • Conformance certification in Levels (Entry, Core, Advanced)

Source: http://www.imsglobal.org/question
QTI 3.0: Overview

- **Remodel** of APIP elements for **Accessibility**
  - Cards & catalogs
  - Extended HTML ARIA support
- **New** web components friendly **syntax**
  - Closer to **implementation**
- **Introduced** **Shared Vocabularies**
  - For providing **rendering** instructions
  - By use of CSS classes & data-attributes
- **Integration of** **Best Practices**
  - **PCI**: Portable Custom Interactions, for enabling Technology Enhanced Items
  - **CAT**: Standard on Computer Adaptive Testing, for integrating external adaptive engines
  - Previously **extensions**, now **native elements**
- **Last version** of QTI?

**Example: Demonstrates class="qti-labels-upper-alpha"**

```
0000 <qti-choice-interaction class="qti-labels-upper-alpha" max-choices="1"
0001 response-identifier="RESPONSE">
0002 <qti-simple-choice identifier="ChoiceA">You must stay with your luggage at all times.</qti-simple-choice>
0003 <qti-simple-choice identifier="ChoiceB">Do not let someone else look after your luggage.</qti-simple-choice>
0004 <qti-simple-choice identifier="ChoiceC">Remember your luggage when you leave.</qti-simple-choice>
0005 </qti-choice-interaction>
```

**Expected Rendering:** Visual labels are uppercase alphabetic

- A. You must stay with your luggage at all times.
- B. Do not let someone else look after your luggage.
- C. Remember your luggage when you leave.

**Source:** [http://www.imsglobal.org/spec/qti/v3p0/impl](http://www.imsglobal.org/spec/qti/v3p0/impl)

**Video:** [https://youtu.be/ue0ctlKP26o](https://youtu.be/ue0ctlKP26o)
QTI 3.0: Coming Soon...

- Results Reporting (almost done...)
  - Used for exchanging results, linked to QTI content model (item, section, part, test)
  - New attributes for tracking answered status, external scoring processes
  - New implementation guide with samples
- Usage Data
  - Used for exchanging (aggregated) statistics
  - Updating vocabularies for statistical (IRT) models
  - Creating new implementation guide
- Standard on CAT
  - Specification & documentation ready
  - IMS updating documentation, modeling, test suite
  - Public Candidate Final release: end of 2020
- Next: Public Final Release
  - 2 x 2 Level 2 conformance certifications required
  - Looking for implementations!
- After that:
  - QTI Services (data in motion) for content & results exchange?
  - Suggestions welcome!

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Standard on Proctoring

- Best practice on how to integrate online/remote proctoring solutions with LMS and assessment solutions
  - Start proctoring & assessment sessions
  - Service to control pause/stop sessions
- Based on LTI Advantage
  - Profile of LTI 1.3 Deep Linking Service
  - Separate Assessment Control Service API
- Workgroup established in 2017
  - Initiated by Steve Lay (QuestionMark) @ IMS Europe event in Utrecht, 2016
  - Participation from UCLA, ETS, Proctorio, TAO, Examity
  - Public Candidate Final available
  - Looking for implementations...

Source: https://www.imsglobal.org/spec/proctoring/v1p0
Get Involved!

• “When will standard X be available?”
  • Up to you: implementations required!
• “Why doesn’t Standard Y support Z?”
  • Get involved and set the direction
• Help build the integrated assessment & learning ecosystem of the future!
  • Join the QTI/CAT/Proctoring working groups
  • Join the IMS Europe Technical Taskforce
  • Join the IMS Europe Board
  • Join the IMS Assessment Product Steering Committee
Questions?

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