Overcoming barriers to eLearning content development – the use of SCORM-compliant plugins

- Dr Martin Daly
- University of Western Sydney
Demand for eLearning content

• Student expectation
  – eLearning content 'expected' by students

• Student advantages
  – Greater flexibility (time, location)
  – Self-paced learning with revision
  – Self-test capabilities

• Pedagogical benefits
  – Blended-delivery/eLearning as/more effective than traditional teaching methods?
  – More engaging, self-paced, revision, self-test
Barriers to in-house development

• Sourcing options
  – Pre-existing publisher content
    • Tied to textbooks / Cost
    • Inflexible
  – In-house

• Required technical knowledge
  – Programming/web-development skills?
  – Working with multiple file formats?
  – New application(s)?

• Time
  – Initial construction
  – Ease of re-purposing existing material

• Flexibility of re-use
  – Ease of revision
  – Interoperability: Moving content between platforms
Consequences

• An academic 'digital divide'
  – Tech-savvy → Have skills, prepared to invest time
  – Technophobe → Larger learning curve, less motivation
  – Discrepancy in student experience across units

• Necessity of auxiliary staff (eLearning technical officers)
  – More costly
  – Increased development time (content vs technical expertise)
## Development environments

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<th>Capabilities</th>
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| Programming/web-coding          | High         | High           | Intensive | • Time-consuming to revise.  
• Good platform interoperability |
| Flash/Shockwave                 | High         | Moderately high| Intensive| • Time-consuming to revise.  
• Web-standard                    |
| LMS-based tools                 | Low          | Low            | Minimal | • Often poor                                                                         |
| Dedicated applications (e.g. Adobe Captivate) | Moderate/High | Low/moderate | Minimal/Moderate | • Good (outputs in standard formats) |
Plugins to existing applications

• Microsoft Office Suite
  – Ubiquitous and widely used
  – Potential for wider range of application

• Plugins: Examples:
  – PowerPoint: Articulate, AuthorPoint, PowerPointForce, iSpring
  – Word: WordForce, Wimba Create
Plugins enable...

• Add engaging content
  – Easily add/edit video/audio narration
  – Add quizzes and other interactive exercises

• Utilise existing tools: PowerPoint
  – Audio/video import and playback
  – Graphics, text-formatting, slide transitions, animations
  – User-triggered navigation and animations

• Easy publishing
  – Export to a variety of standards-based formats
  – Easy upload to LMS
  – SCORM: Basic integration with LMS grade-books
Advantages: Technical Knowledge

• Familiar environment
  – Majority of content development builds upon existing skills
  – Learn a new menu, not a new application
  – Familiar environment --> Reduced technophobic/anxiety barrier

• Flexibility
  – Simple --> Complex
  – Add elements to increase engagement
  – Narrated lecture + self-test quizzes + video/audio clips + animation + user-interaction (e.g. roll-overs) + simple experimental demonstrations (questionnaires, time-controlled stimulus presentation)
Advantages: Time

• Builds on existing skills

• Quick re-purposing of existing material
  – Variety of output forms (video, CD-ROM, web, SCORM, direct-to-LMS)

• Reduced dependency on technical support

• Carry-over benefits of further training
Advantages: Flexibility of re-use

- LMS interoperability
  - Web-standard formats (html, flash)
  - SCORM

- Ease of revision
  - Material source = original PowerPoint/video/graphic/audio files
Conclusion

• No excuses any more!

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