

Sleazy Customs Agents, Trench-Coated Spies and SCORM

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Okay, okay. The title is a bit over-the-top, but I needed to do something to get people intrigued enough to read about the elearning topic of SCORM.

Many of my colleagues in the field of corporate training try to avoid this techno-geek topic altogether. However, if you are one of these avoiders maybe this article will provide you with basic answers to two pressing questions:

- 1) What is SCORM?
- 2) Why should I care?

If you are involved with the development and delivery of elearning in any shape or form, you should know something about SCORM, even if only a tiny bit.

What is SCORM?

Simply stated, SCORM standards allow training developers to create web-based elearning content so that it can be shared or reused in different ways, regardless of specific platforms.

In the 1990s, the U.S. Department of Defense set about documenting how to create such elearning packages. As all good defense departments love to do, they sponsored a military contractor, who wrote a specification and gave it a cool-sounding acronym:

- Shareable
- Content
- Object
- Reference
- Model



Makes sense so far? A **Shareable Content Object**, sometimes referred to as a **SCO**, is their fancy name for an elearning package. The **Reference Model** is the specification that describes how to set up SCO's such that they truly are shareable and usable across all platforms.

The **Reference Model** itself is divided into two specifications: one that describes how to package the elearning, while the other describes how it should behave when it runs.

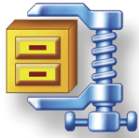
Packaging

This part specifies how to “package” a shareable content object of elearning, typically so that it can be published on a Learning Management System (LMS). The packaging standard describes the proper way to present the elearning to a SCORM-compliant LMS. When you publish your SCO to your LMS, you typically ZIP up all the course contents using your

For those of you who aren't sure what an LMS is, think of an internet portal where your customers and/or internal employees access your elearning content. On a good day, it also tracks their course scores and completions.

favourite ZIP utility, and you include a special text file called an IMSManifest. Just like a shipping manifest on an ocean-going container ship, the manifest contains useful information for the receiver.

Now instead of a chain-smoking customs agent down at the VanTerm docks, the receiver in the SCORM world is the publishing engine of your LMS, who needs to know:



- The folder structure of the elearning
- A list of contents or assets (specifically the graphics, text, animations, etc.) in these folders
- Which file actually starts or launches the elearning

So, when you upload your ZIP'ed SCO to your LMS, mischievous gnome-like beings inside the system read the IMSManifest for the above information and set up the elearning accordingly.

Run-Time Performance

The second part of the SCORM model specifies how the SCO, now published on your LMS, should behave when in use, what programmer-geeks like to call "run-time". It describes how the SCO, when it is launched and running on the learner's computer, should communicate back to the LMS that launched it. You may want to think of this communication as a sort of SCORMware spying, where a little trench-coated gnome in the SCO initiates contact back across the internet to the LMS to report her findings on:

- Learner progress
- Learner scores on any exercises or assessments
- Time spent in the SCO
- And more...



For those of you excited by such things, elearning programmers use Javascripts to build this "spying" behaviour into the SCO during the authoring phase. While the SCORM standards specify which run-time behaviour is necessary or optional, it is largely up to programmers to implement it as they see fit.

Why Should I Care?

Some of you may be thinking, "Interesting, but what do I have to know about all this stuff?" Obviously I think it's important for training professionals to know about SCORM, or I wouldn't have written this witty and amusing article on a somewhat tedious subject. Elearning standards are becoming a fact of life for those involved with training design and deployment. If you cannot speak knowledgeably about this subject, you may be limiting your work opportunities.

Although I think it's important, the degree to which you need to be concerned about SCORM depends on your role within the elearning world. Feel free to cut out and use the following handy **SCORMland-ALERT-GUIDE** as a job-aid to help determine your level of concern.

SCORMland-ALERT-GUIDE

How much sleep should you be losing over SCORM? What level of knowledge do you need? Use this handy guide to find out.

KNOWLEDGE REQUIREMENT ADVISORY	APPLIES TO...	COMMENTS...
SEVERE	<ul style="list-style-type: none"> LMS providers/developers elearning authoring tool developers 	<p>The tools you develop for industry should already be SCORM-compliant. You should be lobbying the guys who write the SCORM specs. In fact, you are the guys who write the SCORM specs.</p> <p>You never sleep.</p>
HIGH	<ul style="list-style-type: none"> elearning content developers and programmers LMS back-end administrators 	<p>You will need to know how to properly code, package and troubleshoot SCORM integration with your company's or your clients' LMS.</p> <p>Do not sleep until you learn more about how Javascript and Flash code communicates with an LMS API.</p>
ELEVATED	<ul style="list-style-type: none"> Instructional designers Training consultants 	<p>You should be fairly conversant in the terminology and basic concepts of SCORM, at least if:</p> <ul style="list-style-type: none"> You have clients who use an LMS You want clients who use an LMS <p>If you are not conversant, wake up and take a closer look at SCORM.</p>
GUARDED	<ul style="list-style-type: none"> Instructional designers Training consultants Training managers Human performance or HR generalists 	<p>If you do not currently work with training that needs to be tracked for a widely-dispersed and diverse audience, you should have picked up everything you needed to know from this paper.</p> <p>You can resume sleeping with one eye open for future developments.</p>
LOW	<ul style="list-style-type: none"> Fashion models Rock stars 13 year olds 	<p>If you fit into this homogenous demographic grouping, you have no need for detailed SCORM knowledge.</p> <p>Continue sleeping.</p>

Handy SCORM-related References

Advanced Distributed Learning Initiative: <http://www.adlnet.gov/scorm/index.aspx>

Ostyn Consulting: <http://www.ostyn.com/resscorm.htm>

UK Becta: http://www.becta.org.uk/page_documents/industry/content_packaging.pdf