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Global Leadership & Governance of
ICT standards for learning, education & training



SCORM stewardship in the emerging world: The linguistic diversity at work from AUF perspective

Mokhtar BEN HENDA

SC36/AUF delegation

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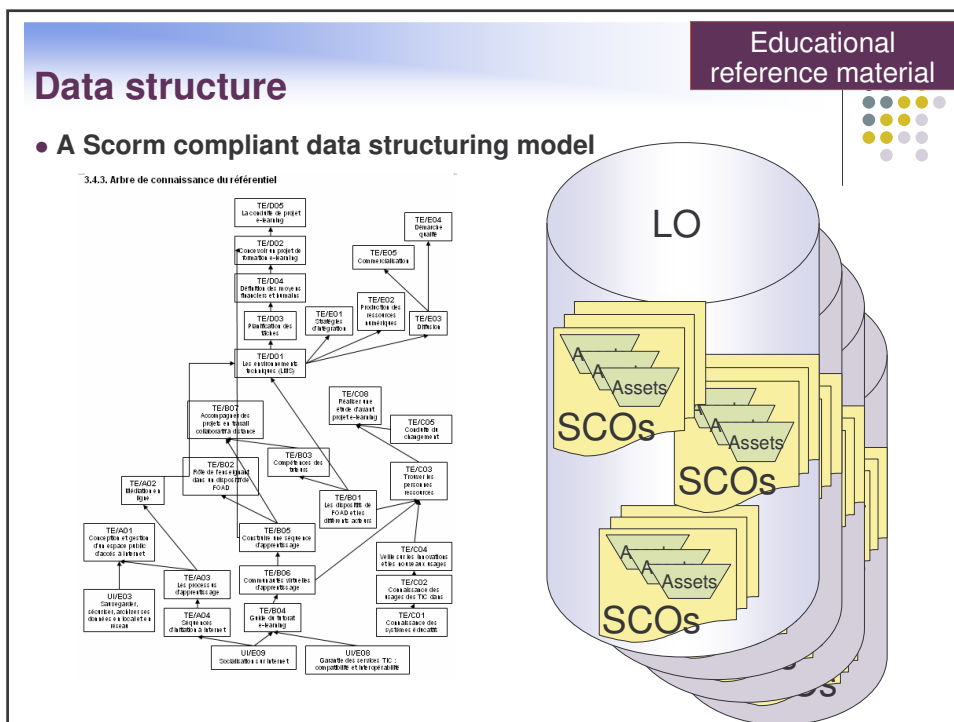
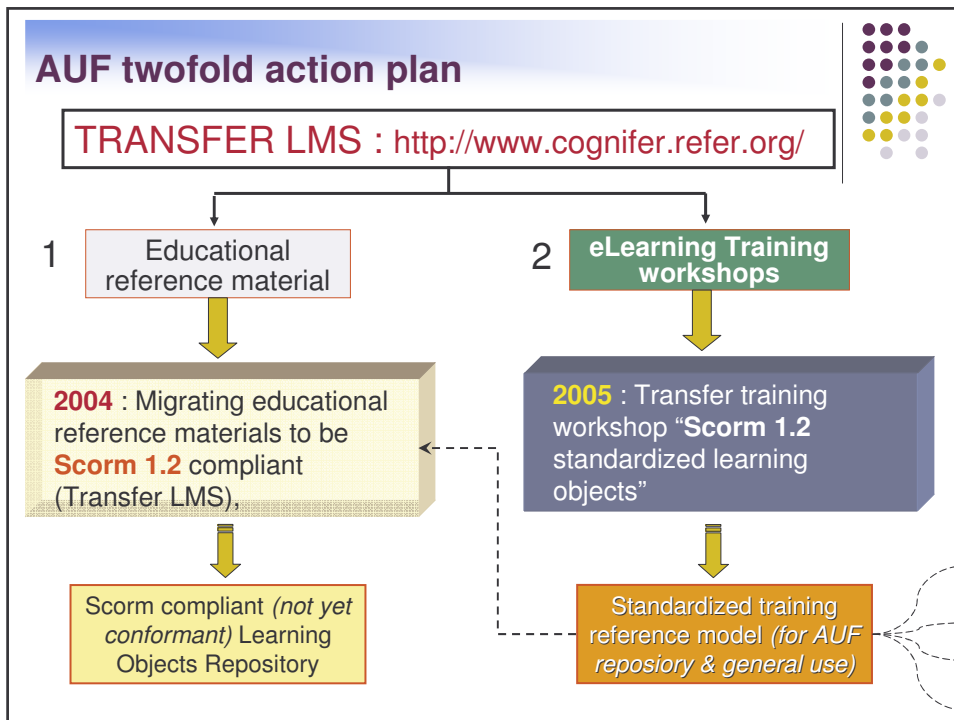
AUF eLearning framework

- ❖ AUF (Agence Universitaire de la Francophonie) is an international network of 635 universities and research institutions having French as one of their working languages,
- ❖ That implies the existence of a wide range of partnerships with many partner languages and cultures in many emerging countries,
- ❖ AUF plays a role of intermediary in many development issues like ICT & eLearning,



What is AUF action plan?





Indexing

Educational
reference material

- A simplified Scorm derived metadata application profile

N°	Champs	Equivalent SCORM
1	Titre	1.2 : Title
2	Auteur	2.3.2 : Entity
3	Affiliation	Addendum
4	Contributeur(s)	3.3.2 : Contribute
5	Nature de contribution	3.3.1 : Role
6	Date de création	2.3.3 : Date
7	Langue	1.4 : Language
8	Résumé	1.5 : Description
9	Mots-clés	1.6 : Keyword
10	Objectif pédagogique	Addendum
11	Version	2.1 : Version
12	Stade de finalisation	2.2 : Status
13	Format(s)	4.1 : Format
14	Durée d'exécution	4.7 : Duration
15	Taille	4.2 : Taille
16	Adresse physique	4.3 : Location
17	Modèle pédagogique	5.2 : Learning Resource Type
18	Contexte d'usage	5.6 : Context
19	Durée d'apprentissage	5.9 : Typical Learning Time
20	Droit d'auteur	6.2 : Copyright

Libellé* Métadonnées SCORM sous Cognifer
 Emplacement M4-Manuel_scorm_cognifer.doc
 Identifiant Seq227 Type du contenu Documentation
 Description Cours sur le principe de l'interopérabilité pédagogique à travers le mécanisme de la réutilisabilité des ressources entre plates-formes
 Objectif Comprendre le principe de l'interopérabilité comme l'un des acquis de la standardisation dans la description des ressources pédagogiques
 Mots clés Métadonnées, SCORM, Interopérabilité, Réutilisabilité, Ressources pédagogiques
 Durée (Heures:Minutes) 02:00 02:00 Langue Français
 Version 2.0 Etat Version finale
 Droits de diffusion Libre
 Payant Usage restreint
 Auteur BEN HENDA Mokhtar
 Date création 25/11/2005
 Taille sur le disque 2974720

Aggregation

Educational
reference material

- SCORM-CAM compliant environment

GESTION DES SEQUENCES DU MODULE : Atelier 2
 Exporter les descripteurs du module format SCORM
 [0.0]::Métadonnées SCORM sous Cognifer
 [1.0]::Interopérabilité pédagogique
 [2.0]::TD : Indexation & interopérabilité

Creating IMS Manifest xml files for Scorm content aggregations and IMS aggregation packaging

Génération de 'imsmanifest.xml'
 Génération de 'course_metadata.xml'
 Nombre de SCO(s) : 3
 Génération de 'sco_Seq227.xml'
 Génération de 'sco_Seq229.xml'
 Génération de 'sco_Seq228.xml'
 OK, Les fichiers sont générés.
 Fermer

Exploitation

Educational
reference material

- SCORM-RTE compliant framework



A Scorm based RTE (Launch, API, Data model)

Training Workshops

Atelier 1.1 ::: Installation d'un système d'exploitation sous Linux

Atelier 1.2 ::: Administration d'un réseau sous Linux

Atelier 1.3 ::: Gestion et sécurité d'un réseau d'entreprise

Atelier 2.1 ::: Gestion de la rédaction et de la publication scientifique en ligne

Atelier 2.2 ::: Création et gestion de site dynamique (PHP/MySQL)

Atelier 2.3 ::: Conception standardisée d'objets pédagogiques interopérables

Atelier 2.0 ::: Maîtrise des outils de recherche et d'accès à la documentation s

Atelier 3.2 ::: Conception, développement et utilisation d'un cours en ligne

Atelier 3.3 ::: Création et gestion d'un enseignement ouvert et distant

Atelier 3.4 ::: Tutorat dans une formation ouverte et à distance

10 workshops
03 E-Learning oriented
01 explicitly standards oriented

Conception, development and
use of an on-line learning
content

Implementation and
management of an On-line
educational system

Tutoring an on-line
training

**Workshop 2.3 : Standardized interoperable learning
objects**

Programme

eLearning Training
workshops



- 1 : General Introduction to **metadata**
- 2 : Introducing on-line educational **standards**
- 3 : Introducing **learning design** : Scorm/SN; IMS-LD
- 4 : Practicing LMS **Interoperability** :
Moodle/Ganesha/Transfer
- 5 : Individual **projects**: *converting one's course content into Scorm compliant structure*

Statistics

eLearning Training
workshops



- ❖ 3 international workshops in 2006
- ❖ 36 learners (trainers and lecturers)
- ❖ 07 African nationalities
- ❖ Perspectives :
 - More regional and local workshops in areas with strategic impact (North Africa, Western Africa, Eastern Europe, South Asia),



Upgrading

eLearning Training workshops

- SCORM 2004
- Presenting IMS-LD specifications,
- Introducing IMS-SS,
- Extending use of IEEE-LOM metadata,
- Applying IMS Question and test interoperability,
- Introducing Cordra learning repositories.

Linguistic issues

Perspectives

- AUF plans to internationalize its e-resources
- Multilingual dynamics around AUF Transfer LMS and Transfer 2.3 workshop are on their way
(TELJE+ : SAATAR LMS)

The image displays two screenshots related to the SAATAR LMS. The left screenshot shows the TELJE+ logo and a list of tools for e-learning, including integrated authoring, tutoring, collaborative tools, virtual desktop, and evaluation systems, all available in multiple languages. The right screenshot shows the SAATAR LMS interface, featuring a virtual desktop with various application icons such as documents, messaging, agenda, telepresence, and forums, all accessible in multiple languages.

Linguistic issues

- Unicode characters coding and Bidi algorithms are default implemented



Linguistic issues

- Templates, metadata and localization variables are culturally and linguistically adapted to implement Scorm specifications in many languages



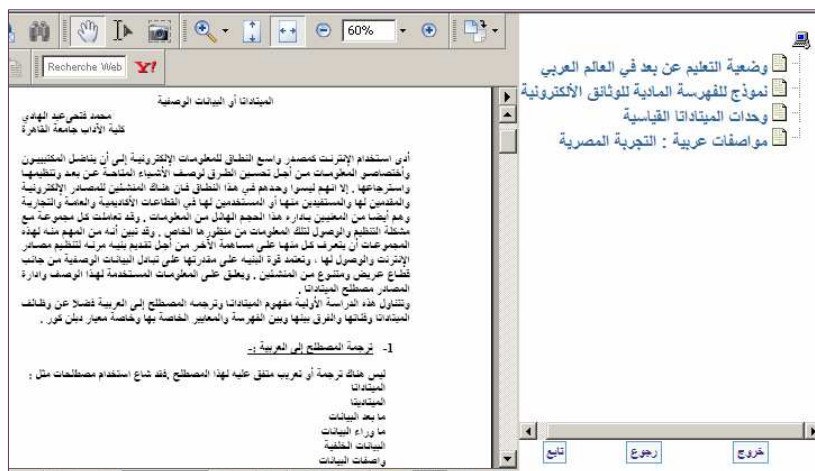
Linguistic issues

- Producing IMS Content aggregations are also possible in different languages (even those using complex scripts and Bidi Algorithms “RTL/LTR”)



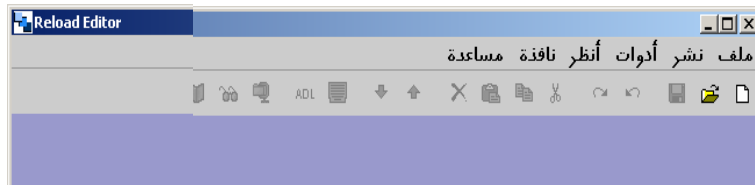
Linguistic issues

- SCORM/RTE APIs are automatically shifted Right to Left in multilingual environments



Linguistic issues

- Use of multilingual authoring tools (Multilingual Reload)
 - ❖ Interfaces
 - ❖ Content aggregations
 - ❖ Metadata



AUF eLearning standardization Strategy

- Multi-level upgrading to AICC & IMS specifications

- | | | |
|--|---|--------------|
| 1. Content packaging (IMS-CP), | } | In progress |
| 2. Competency definition (RDCEO), | | |
| 3. Accessibility (Accommodation "CLFA"), | | |
| 4. Meta-data (IEEE-LOM), | | |
| 5. Simple sequencing (IMS-SS), | } | Short run |
| 6. Digital repositories, | | |
| 7. Learning design (IMS-LD), | | |
| 8. Question and test interoperability, | } | Long run |
| 9. Learner information (IMS-LIP), | | |
| 10. Vocabulary definition exchange (VDEX). | } | Not intended |
| 11. Enterprise, | | |
| 12. Enterprise services, | | |

Conclusion/recommandations



- With Unicode, I18n and L10n:
 - ❖ Linguistic and cultural diversities are no more obstacles for E-learning standards worldwide interoperability. It is a question of strategies,
- For a better worldwide stewardship of standards:
 - ❖ Reinforce I18n/L10n of authoring tools and interfaces,
 - ❖ Concentrate on the learners' requirements and needs,
- AUF is willing to cooperate within LETSI for a multilingual and multicultural Scorm stewardship in the French Speaking contexts