Active Content
and IMS Learning Design

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play

Act 1 ➔ Act 2 ➔ Act 3 ➔ Act 4 ➔ Act 5

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play

Act 1 → Act 2 → Act 3 → Act 4 → Act 5

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Act 1 → Act 2 → Act 3 → Act 4 → Act 5

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Act 1 → Act 2 → Act 3 → Act 4 → Act 5

Role-part 1
Role-part 2
Role-part 4
Role-part 5

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Act 1 → Act 2 → Act 3 → Act 4 → Act 5

Role-part 1
Role-part 2
Role-part 4
Role-part 5

Role ← Activity

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Act 1 → Act 2 → Act 3 → Act 4 → Act 5

Role

Role-part 1
Role-part 2
Role-part 4
Role-part 5

Role → Activity

Activity

Activity-Description

Environment

Learning objects
Learning services

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method

Act 1 -> Act 2 -> Act 3 -> Act 4 -> Act 5

Role-part 1
Role-part 2
Role-part 4
Role-part 5

Role

Activity
Activity-Description

Environment
Learning objects
Learning services

components

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example learning activity
Forms of Active Content (1)

- Static flows
  - fixed in design time, student chooses in runtime

- Dynamic flows, updated by properties
  - fixed in design time, system chooses by evaluating properties that have been set in runtime
start

route?

thematic

historical

bebop

swing

free jazz

donew orleans

New Orleans

swing

bebop

free jazz

end
Forms of Active Content

- Static flows
  - fixed in design time, student chooses in runtime
- Dynamic flows, updated by properties
  - fixed in design time, system chooses by evaluating properties that have been set in runtime
start

route?

thematic

historical

bebop

swing

questionnaire

free jazz

New Orleans

swing

questionnaire

bebop

free jazz

end
Properties ...

- are variables
  - may be declared at will
  - local to run or global in some sense
  - may be set, viewed, updated
  - have data type (text, integer, boolean, file)

- result from student **interaction** with system
  - answers to questions
  - completion of an activity
  - upload of a file (paper, report)
Structured Content

- interaction requires access to interior of learning activity/object
- use XML for structuring content
  - allows insertion of other specs (‘namespacing’)
    - QTI (representation part)
    - MathML, ..
  - XHTML - close to html, widely used
  - Doc-book - better structure, conversion of legacy data
  - medium neutrality (Accessibility!)
Future of active content

- student (life-long-learner) in driver seat
- ‘self-configurating’ content
  - student learning objectives
  - past performance
  - preferences (learning style, accessibility, ...)
- requires use of intelligent agent technologies