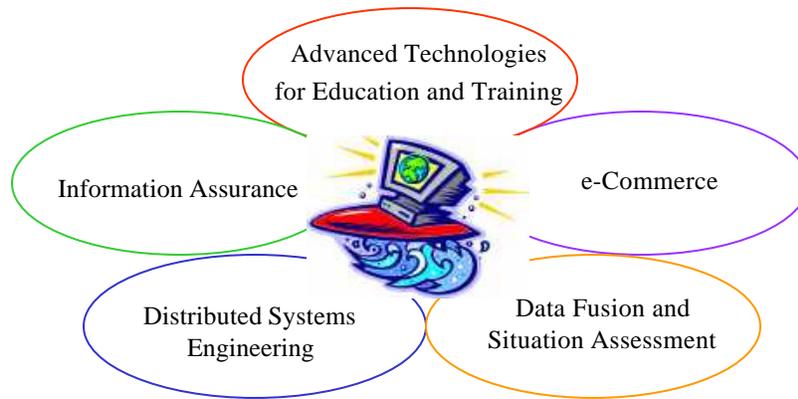


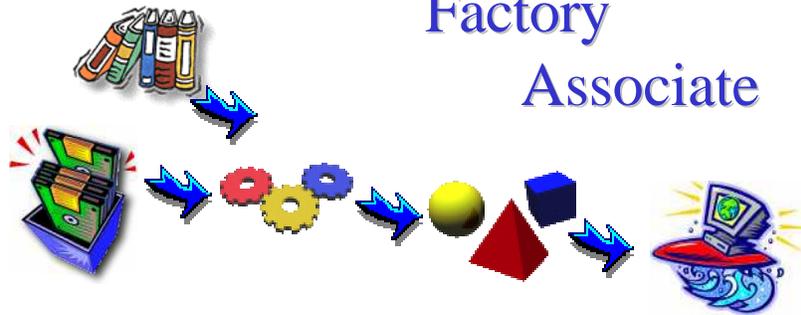
# TEKNOLEDGE

- Internet knowledge systems company for Commercial and Defense applications
- Architecture, software development, systems integration



[www.teknowledge.com](http://www.teknowledge.com)

## Courseware Factory Associate

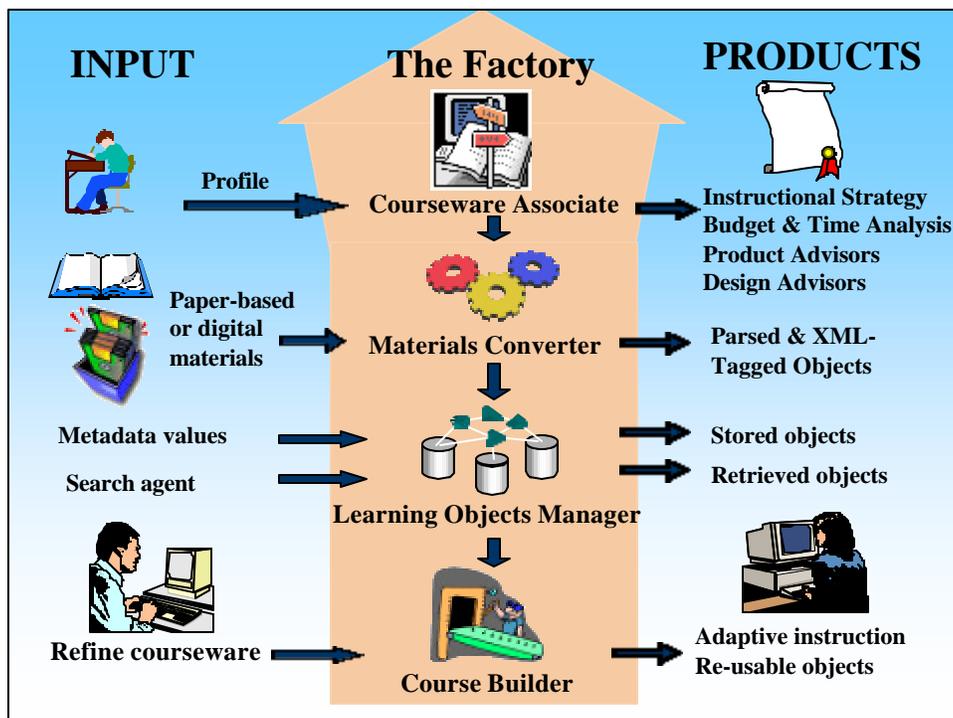
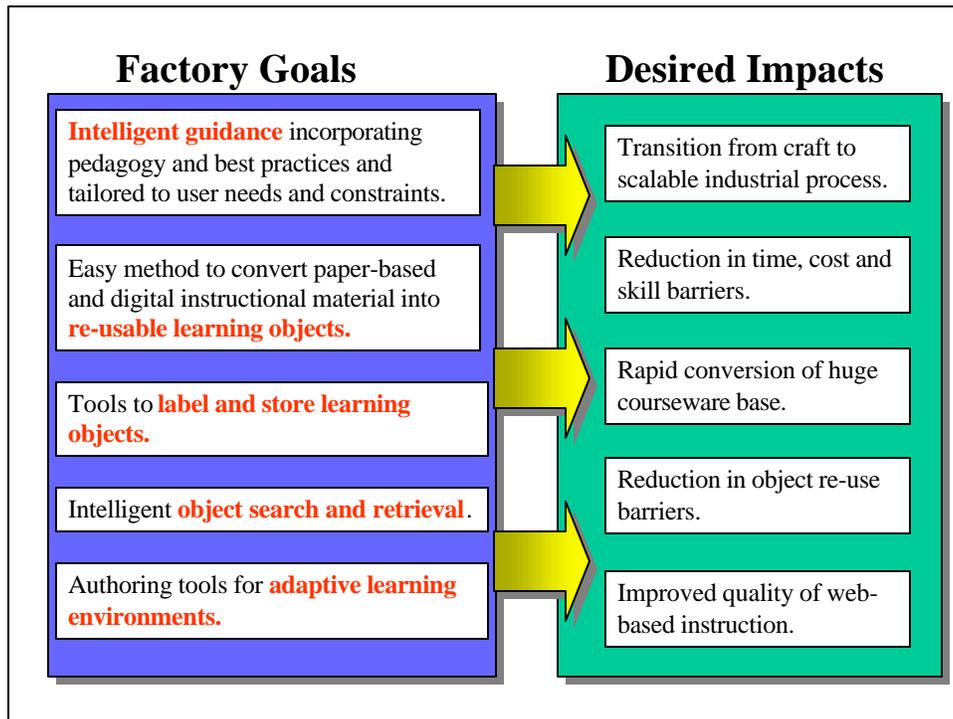


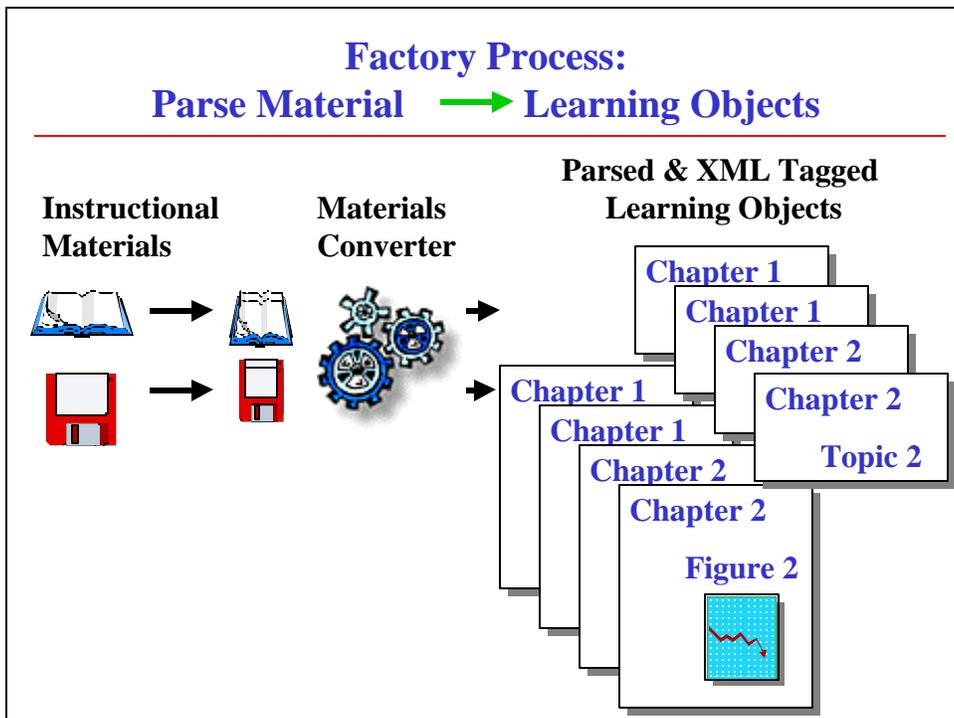
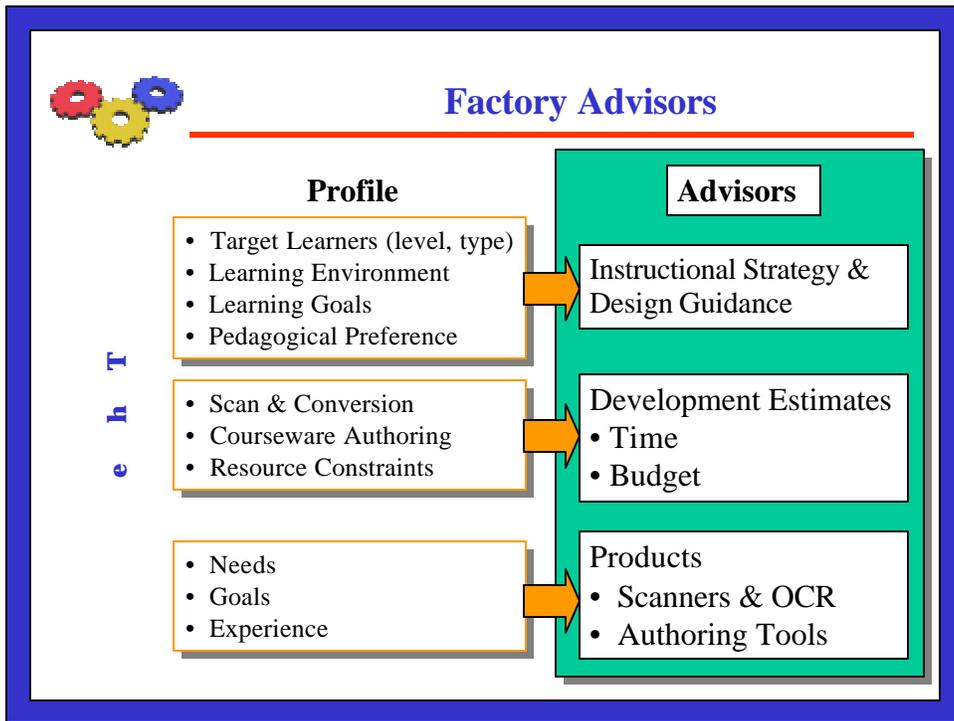
**Re-engineering Objects for Web-based Instruction on Demand**

ATP funded phase: Nov 98 - Nov 01

Dr. Michelle Sams, Program Manager  
[msams@teknowledge.com](mailto:msams@teknowledge.com)

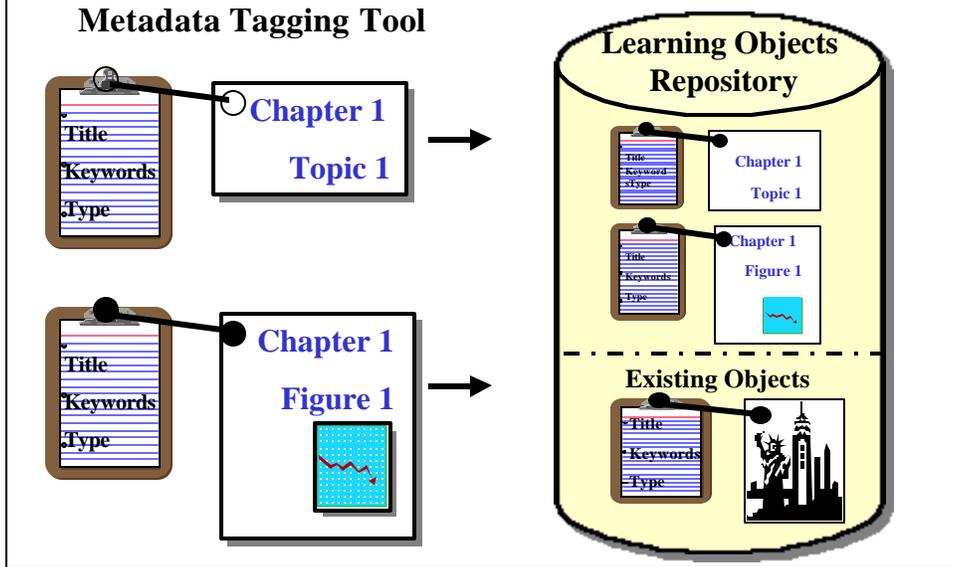
Mr. Steven Luce, Technical Lead  
[sluce@teknowledge.com](mailto:sluce@teknowledge.com)





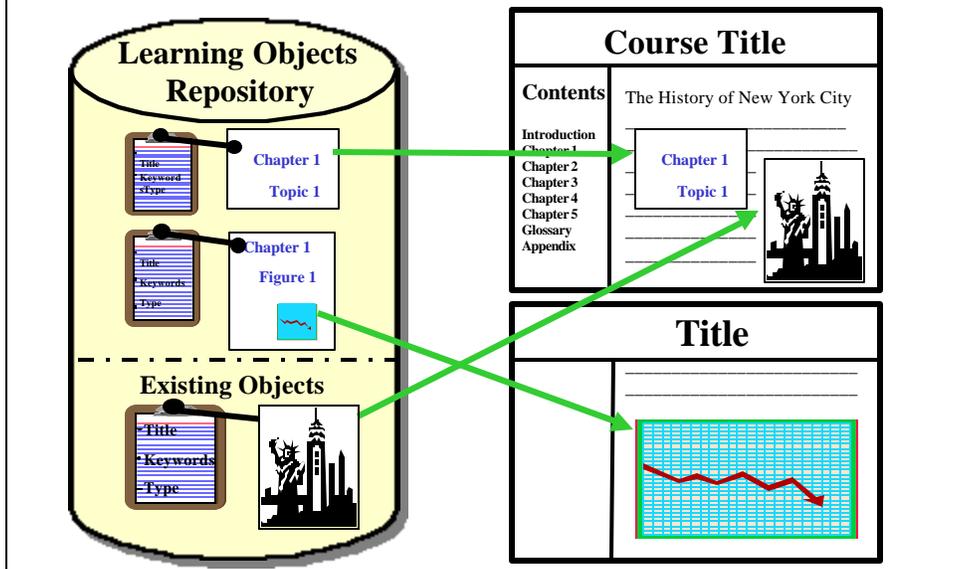
**Factory Process:  
Metadata Tag → Store Learning Objects**

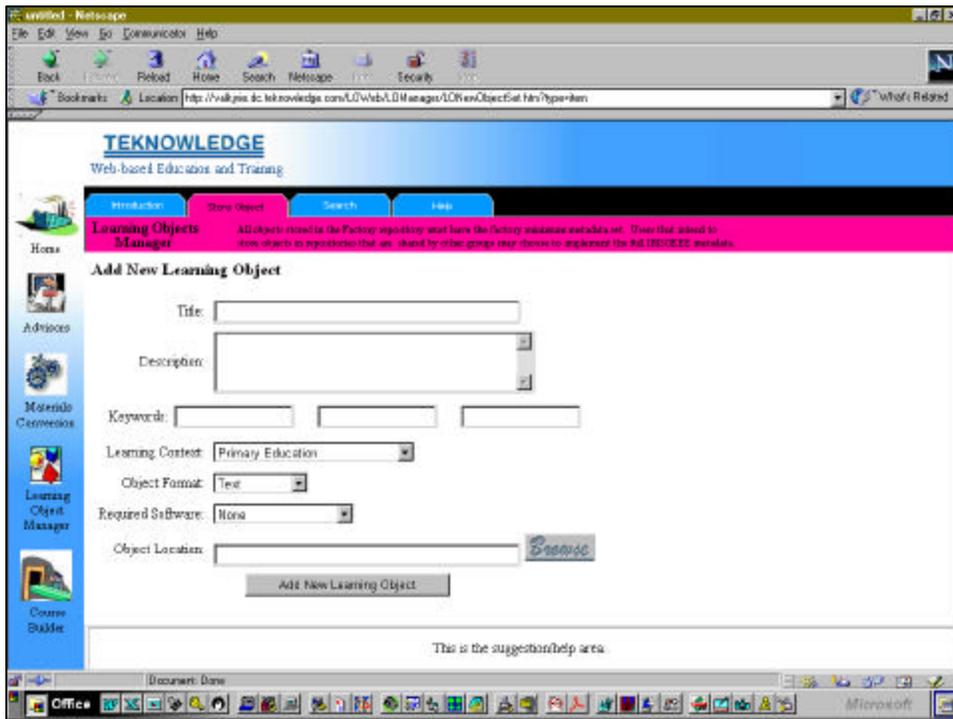
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**Factory Process:  
Search & Retrieve Objects → Build Courses**

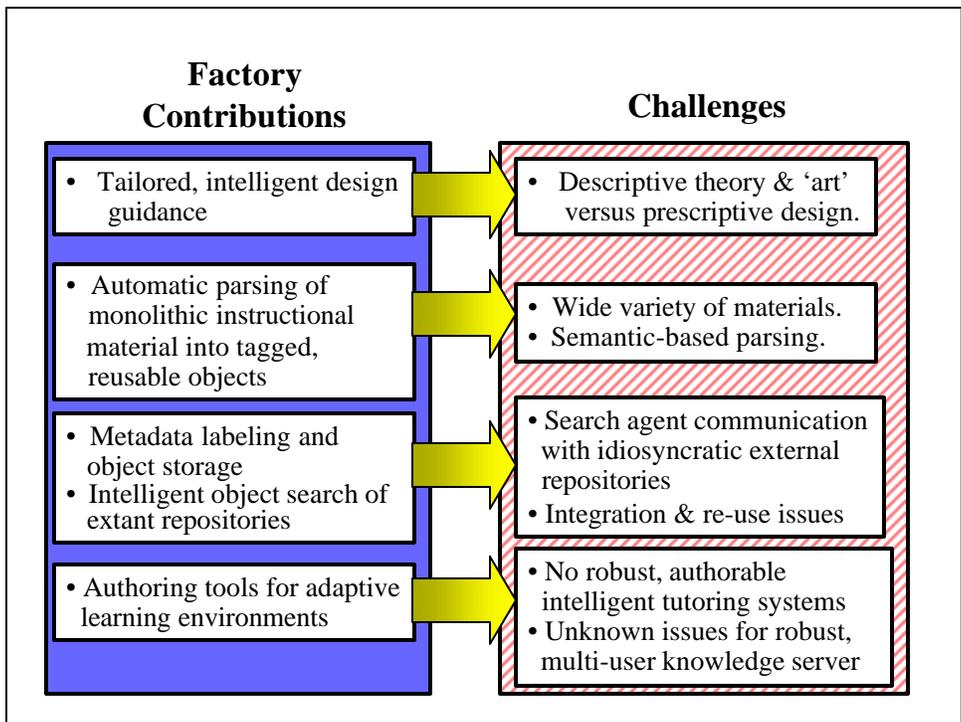
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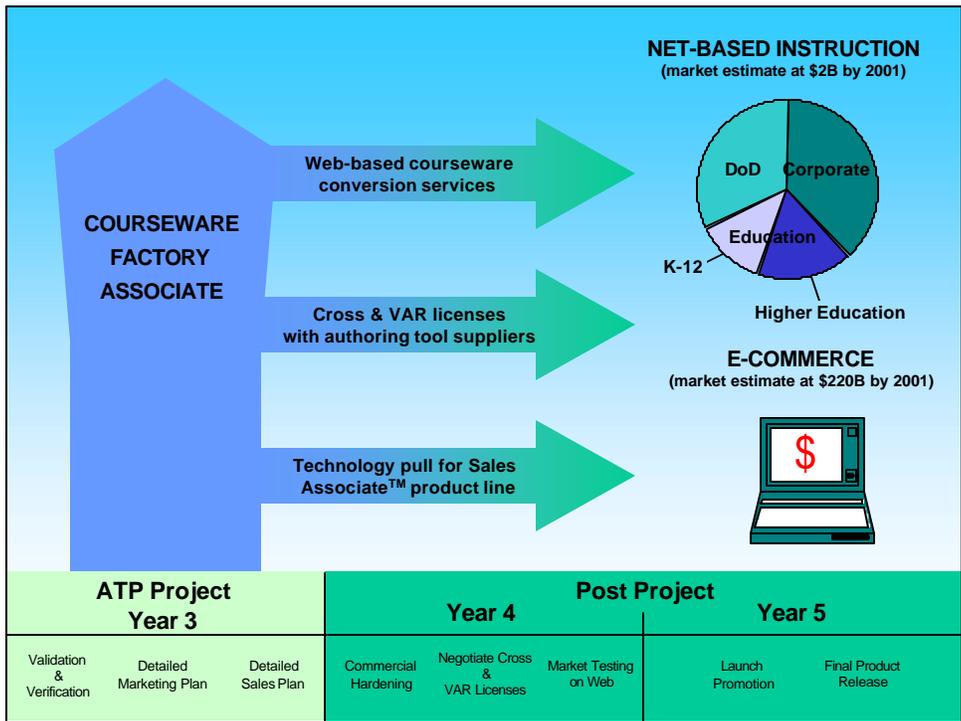




Technology Baseline	Factory Strategy
<b>Analysis and Design</b>	
Fragmented sources of on-line or paper-based procedures, forms, templates, guidelines, and tips.	Cull existing sources and elicit input from experts to develop expert model.
User must select and integrate information to derive their own plan.	Develop <b>Courseware Associate</b> - Intelligent, integrated on-line guidance tailored to the user.
<b>Scan and Convert</b>	
Time consuming manual tagging process.	Maximize use of existing XML tools.
	Develop <b>Materials Converter</b> - streamlined, semi- automatic conversion to tagged objects.
<b>Search and Store Learning Objects</b>	
No widely available tool to assign metadata to objects.	Draw on IMS/IEEE metadata specification and tools.
Idiosyncratic repositories.	Develop <b>Learning Objects Manager</b> - adds metadata, conducts intelligent object search

Technology Baseline	Factory Business Strategy
<b>Authoring Courseware</b>	
<p>COTS tools for developing web-based courseware with interactive learning experiences.</p> <p>No widely available authoring tool for intelligent tutoring systems (ITS).</p> <p>No tool to integrate a variety of learning environments.</p>	<p>Incorporate authoring tools for web-based instruction including authorable intelligent tutoring systems.</p>
<b>Mass Customization</b>	
<p>Fragmented process. Separate tools.</p> <p>Technology gaps - no automatic tagging and no intelligent guidance.</p> <p>No single product provides all conversion services.</p>	<p>Develop architecture and integrate existing components/tools and develop solutions to fill in the gaps.</p> <p><b>The Factory</b> provides intelligent guidance, conversion and tagging, search and store of objects, and a continuum of learning environments.</p>





## Partners & Alliances

**Tool Providers & Technology Cooperation**

Courseware Authoring Tools:

- Macromedia
- click2learn (formerly Asymetrix)

Scanners: Hewlett Packard

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**User Testbeds**

- Air Force Academy
- Defense Acquisition University
- Another site? University, Industry

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