



# Building Blocks of an E-Learning Infrastructure

Josh Bersin

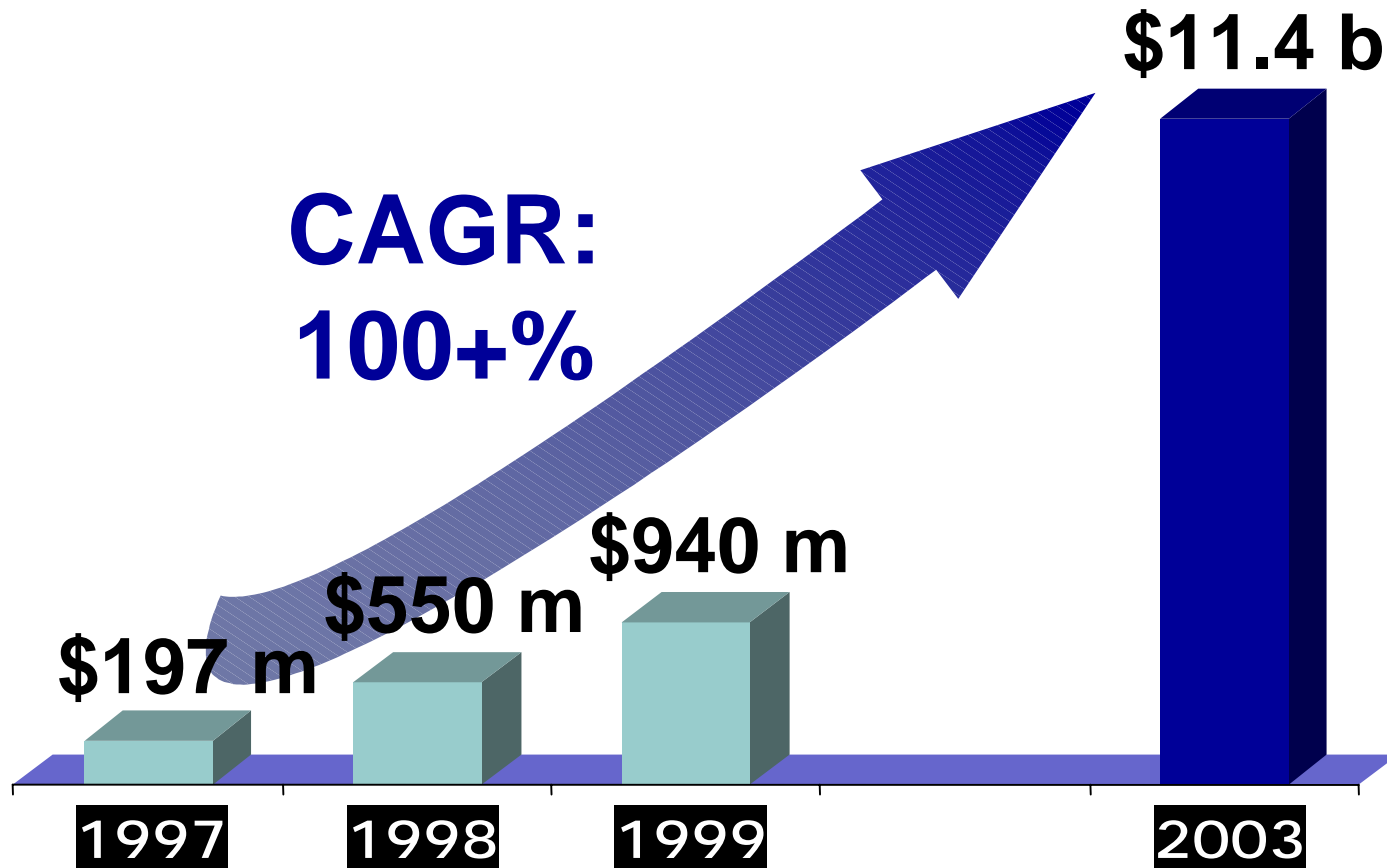
Vice President, Product Management

[jbersin@digitalthink.com](mailto:jbersin@digitalthink.com)

# Agenda

- Why is E-Learning Hot?
- Requirements for an E-Learning Infrastructure
- E-Learning vs. Knowledge Management
- How do you get started?

# Rapid Uptake Predicted for E-Learning



Source: IDC

# Why is E-Learning Hot?

“The next big **killer application** of the internet will be **education** ... it will make email look like a rounding error.”

John Chambers **CEO**



“It is estimated that 50% of employee's skills become outdated in 3 to 5 years.”



The Federal Reserve Board

“We have become a knowledge-based economy, fueled by lifelong education and training...”

Alan Greenspan

“Thanks to the internet, adult education may become our single largest industry.”

Peter Drucker

**Forbes** MAGAZINE

# Corporate Applications for E-Learning

## Workforce Transformation



- Enable Mergers and Acquisitions
- Enter new markets
- Improve Skills

## Sales Channel Optimization



- Increase Sales
- Improve Time to Proficiency
- Reduce Turnover

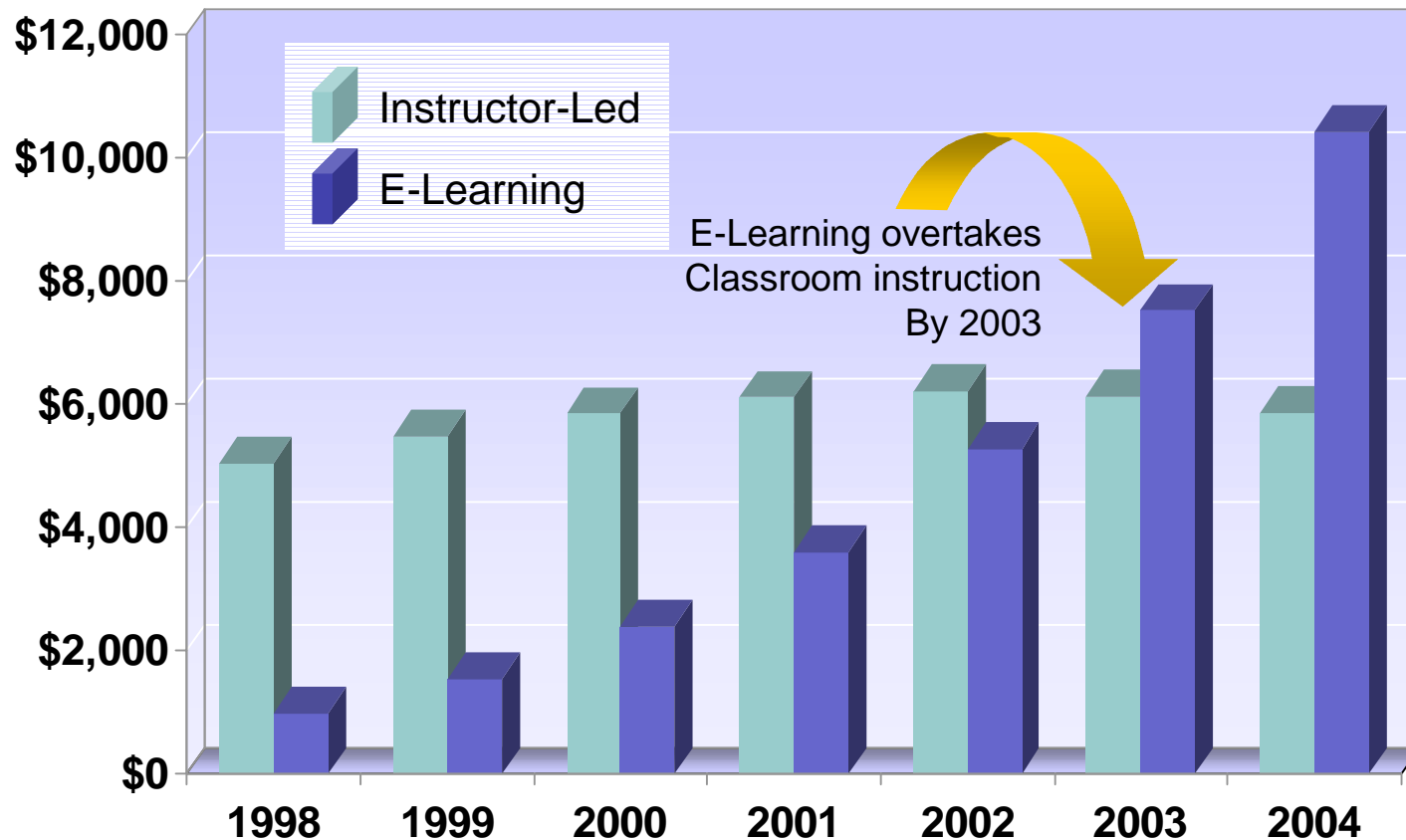
## Customer Education



- New Revenue Sources
- Increase Customer Satisfaction

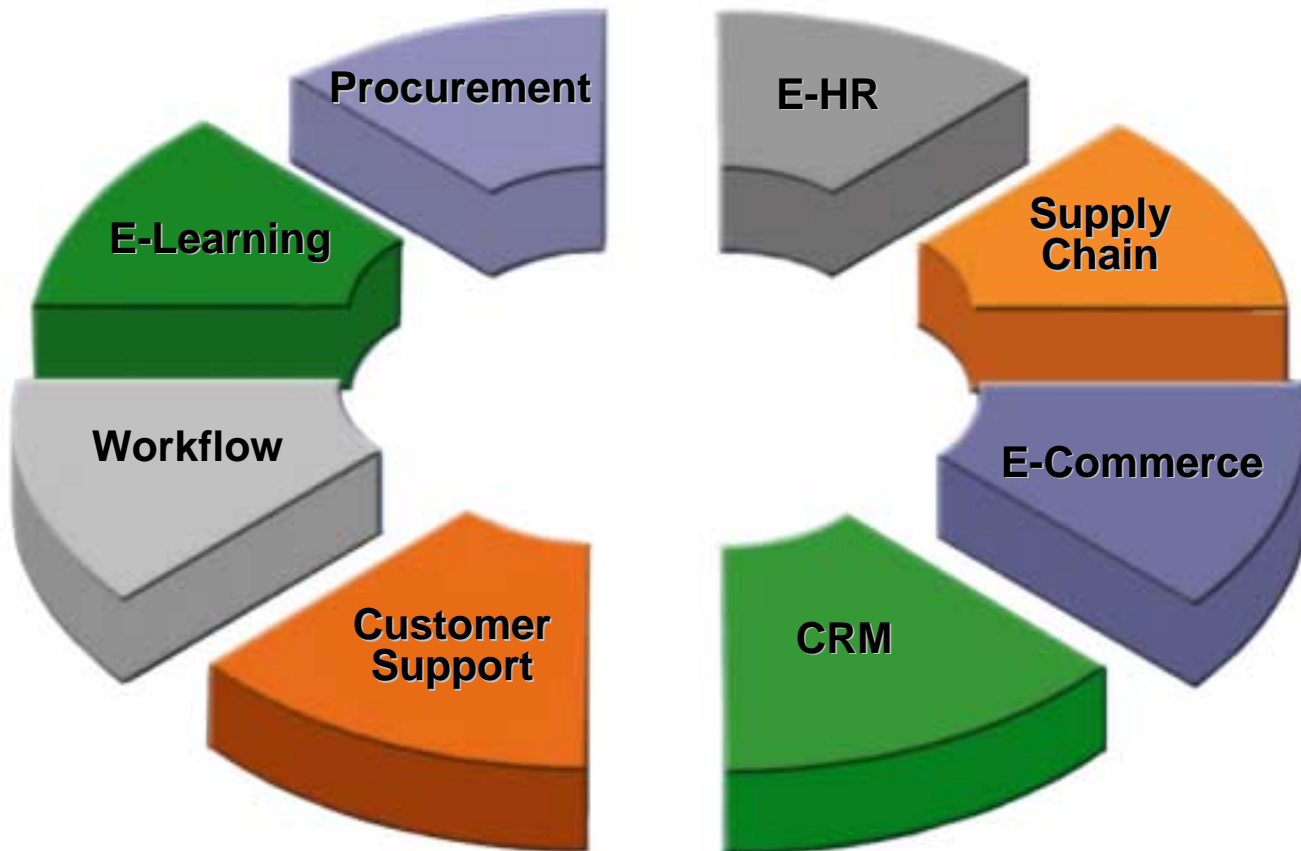
# Dramatic Shift from the Classroom

Annual Revenue by Methodology in \$000s



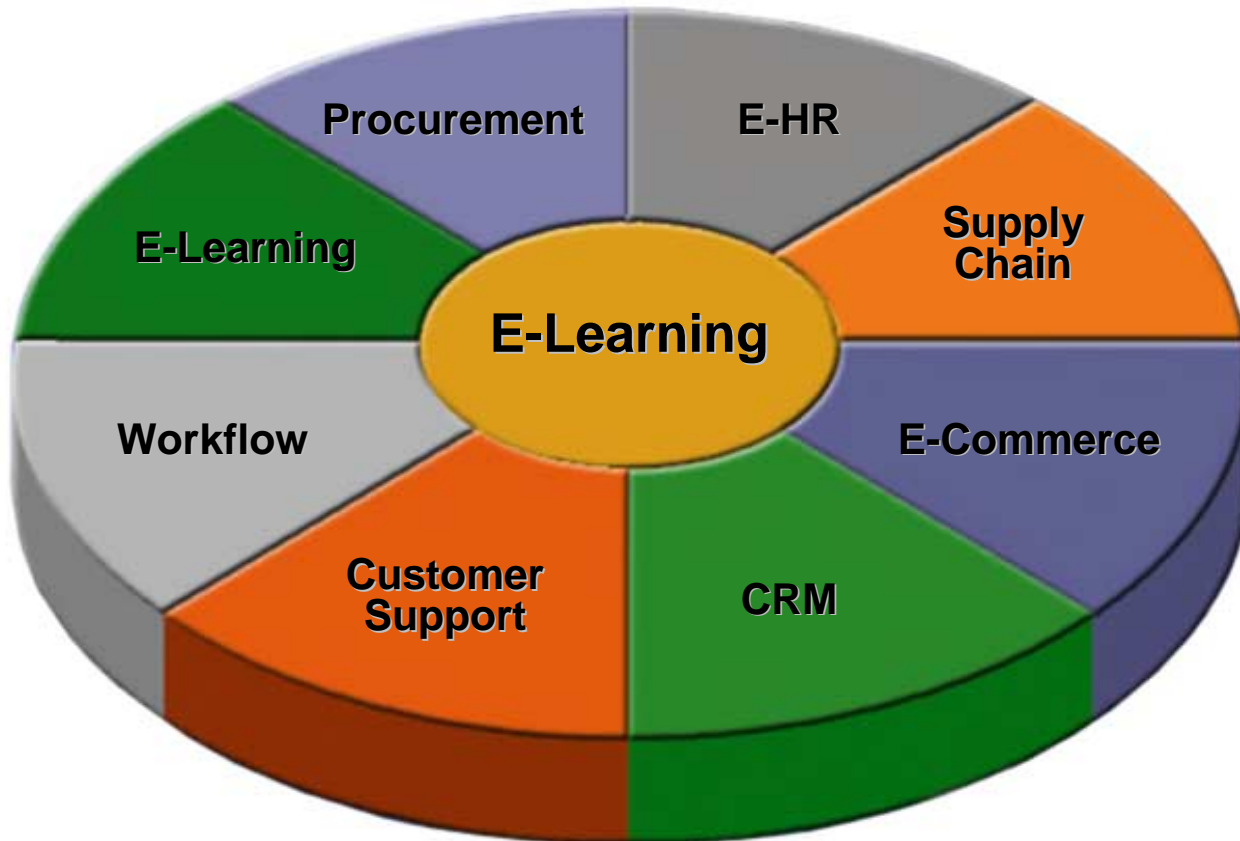
# E-Business Initiatives

Better, faster, cheaper



# E-Business Initiatives

Better, faster, cheaper





# E-Learning is A Business Imperative

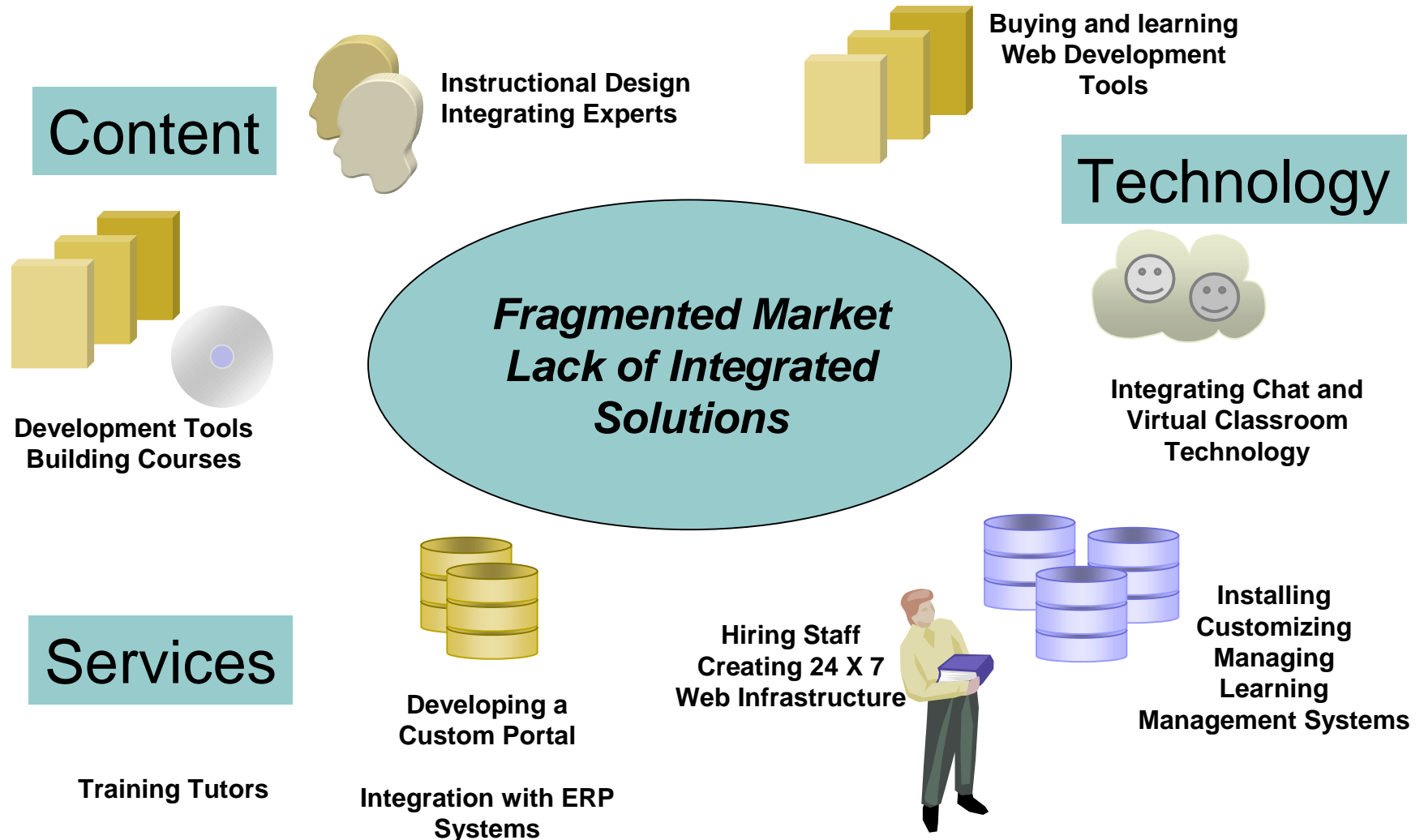
## What it is:

- A strategic tool to drive change and results
- A way to improve existing learning and training
- A tool for competitive advantage
- An internet business service

## What it is not:

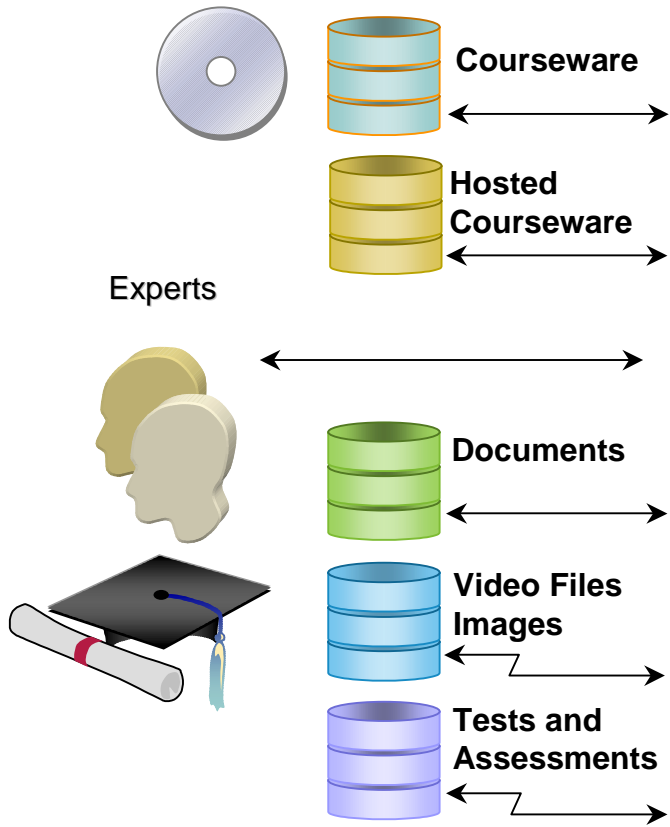
- Only a way to reduce the cost of training
- A way to replace classroom instruction
- A support function
- A simple web site with online courses

# The Challenges of E-Learning Today



# E-Learning is a Portal Solution

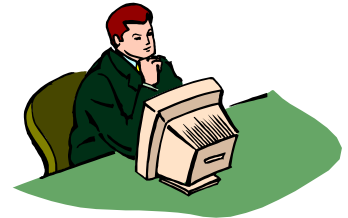
## Any Learning Content



## Platform

- Personalized
- Relevant
- Available
- Scalable
- Complete

## Customer Portal



## Partner Portal



## Employee Portal



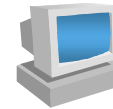
# Fundamental Building Blocks



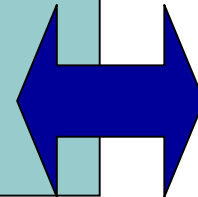
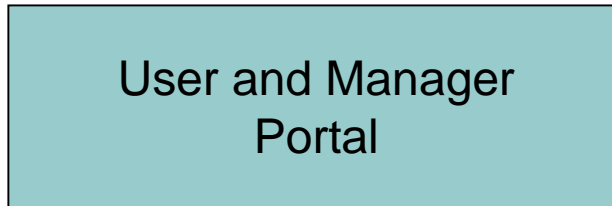
Developers, Designers



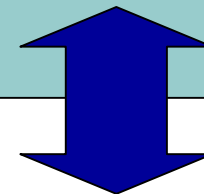
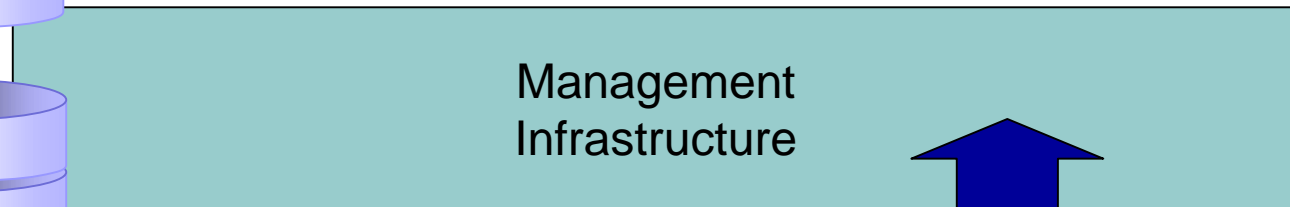
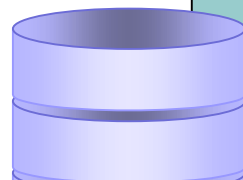
Developers, Designers



Learners, Administrators, Managers



External Content



Internal ERP

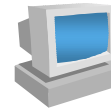
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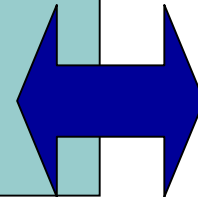
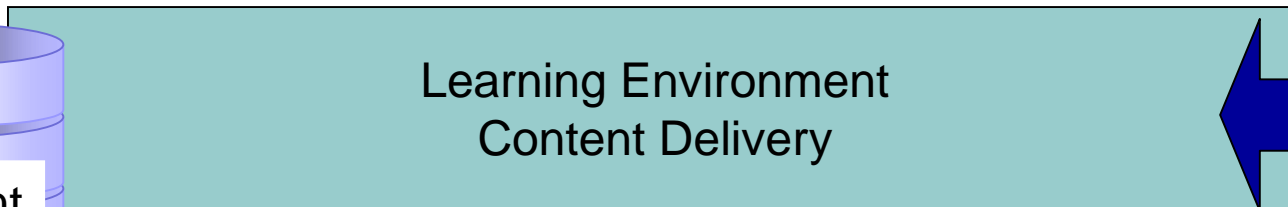
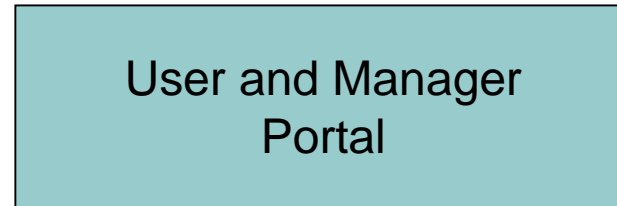
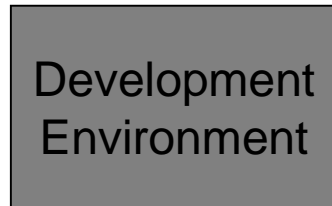
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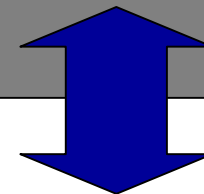
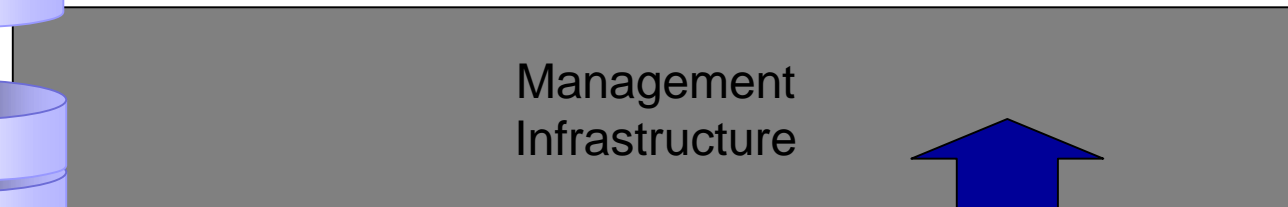
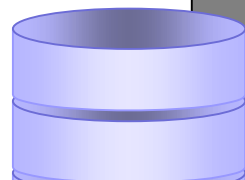
Developers, Designers



Learners, Administrators, Managers



External Content



Internal ERP

# The Learning Environment

## Integrated Components

- Syllabus
- Glossary
- Help
- Classmates
- Tutors / Experts
- FAQs
- Discussion
- Simulations
- References
- Assessments
- Audio
- Video
- Bookmarking

# Branded Portal and Courses



## ■ Your Learning Portal

- Logos, Colors
- Course Catalog
- Registration
- Content
- Marketing
- Feedback
- Tutors

# Tracking and Reporting

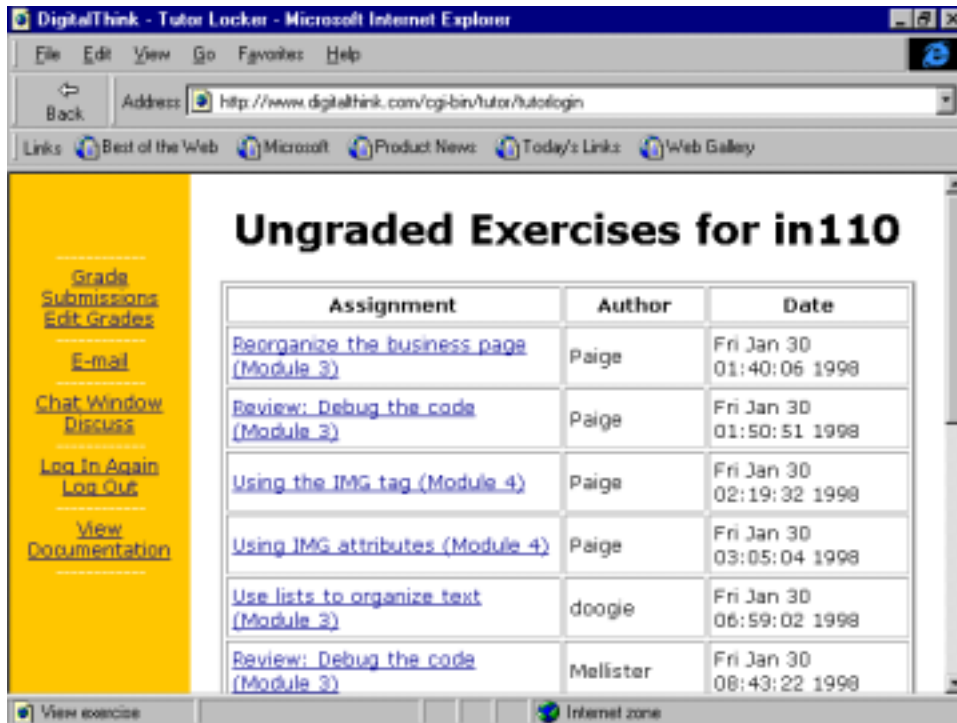
- Bookmarking by Page
- Track Progress
  - Learners Themselves
  - Managers
  - Executives
- Enterprise Reporting
- AICC Specification
  - Open 3<sup>rd</sup> Party Content
  - Level 1, 2, 3

Corporate Reporting - Create a New Report

Course	Enrolled	Last Activity	Completion %	Seats	Cost	Current Module	Performance %
Course: Introduction to C Programming	11/26/97	12/1/97	0	1	\$ 325	10	19
Course: Introduction to PageMaker 6.5	11/26/97	12/8/97	0	1	\$ 125	3	3
<b>Cost Center: Operations/Employees</b>				<b>Seats: 26</b>	<b>Cost: \$ 5,495</b>		
<i>Course - Title, Ready ID Phone</i>							
Course: Advanced Java	11/10/97	12/12/97	0	1	\$ 325	0	0
Course: Advanced PageMaker	11/10/97	12/12/97	0	1	\$ 125	0	0
Course: Advanced Perl for the Web	11/10/97	12/12/97	0	1	\$ 325	0	0
Course: Building GUIs with Java	11/10/97	12/12/97	0	1	\$ 325	0	0



# Subject Matter Expert Integration



The screenshot shows a web browser window titled 'DigitalThink - Tutor Locker - Microsoft Internet Explorer'. The address bar shows 'http://www.digitalthink.com/cgi-bin/tutor/autologin'. The page content includes a yellow sidebar with navigation links and a main section titled 'Ungraded Exercises for in110' containing a table of assignments.

Assignment	Author	Date
<a href="#">Reorganize the business page (Module 3)</a>	Paige	Fri Jan 30 01:40:06 1998
<a href="#">Review: Debug the code (Module 3)</a>	Paige	Fri Jan 30 01:50:51 1998
<a href="#">Using the IMG tag (Module 4)</a>	Paige	Fri Jan 30 02:19:32 1998
<a href="#">Using IMG attributes (Module 4)</a>	Paige	Fri Jan 30 03:05:04 1998
<a href="#">Use lists to organize text (Module 3)</a>	doogie	Fri Jan 30 06:59:02 1998
<a href="#">Review: Debug the code (Module 3)</a>	Mellister	Fri Jan 30 08:43:22 1998

- Completion requires People to Intervene
- SME's want to author content!
- SME's Integrated into Instructional Design
  - Review all exercises
  - Initiate communication
- SME Portal
- SME Reporting
- SME Feedback to content developers

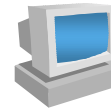
# Fundamental Building Blocks



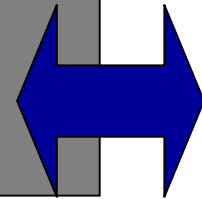
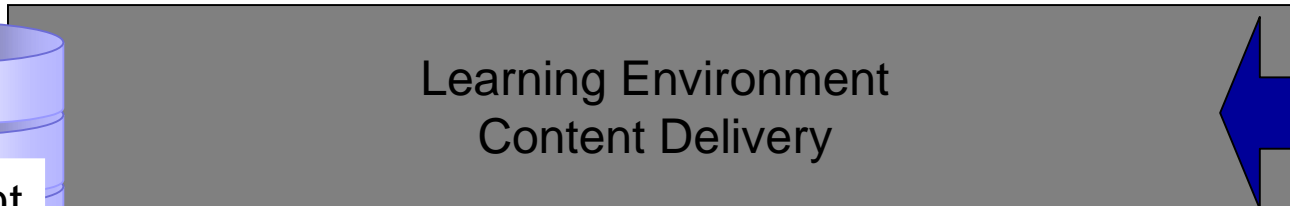
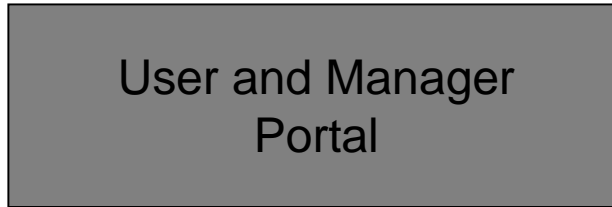
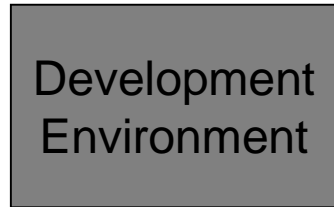
Developers, Designers



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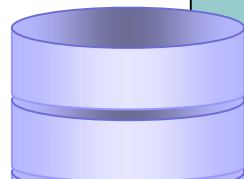
Learners, Administrators, Managers



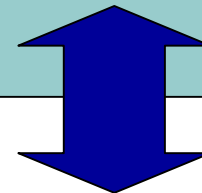
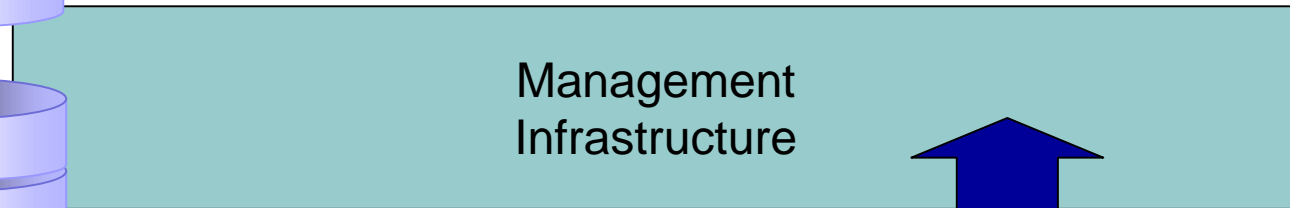
External Content



Content

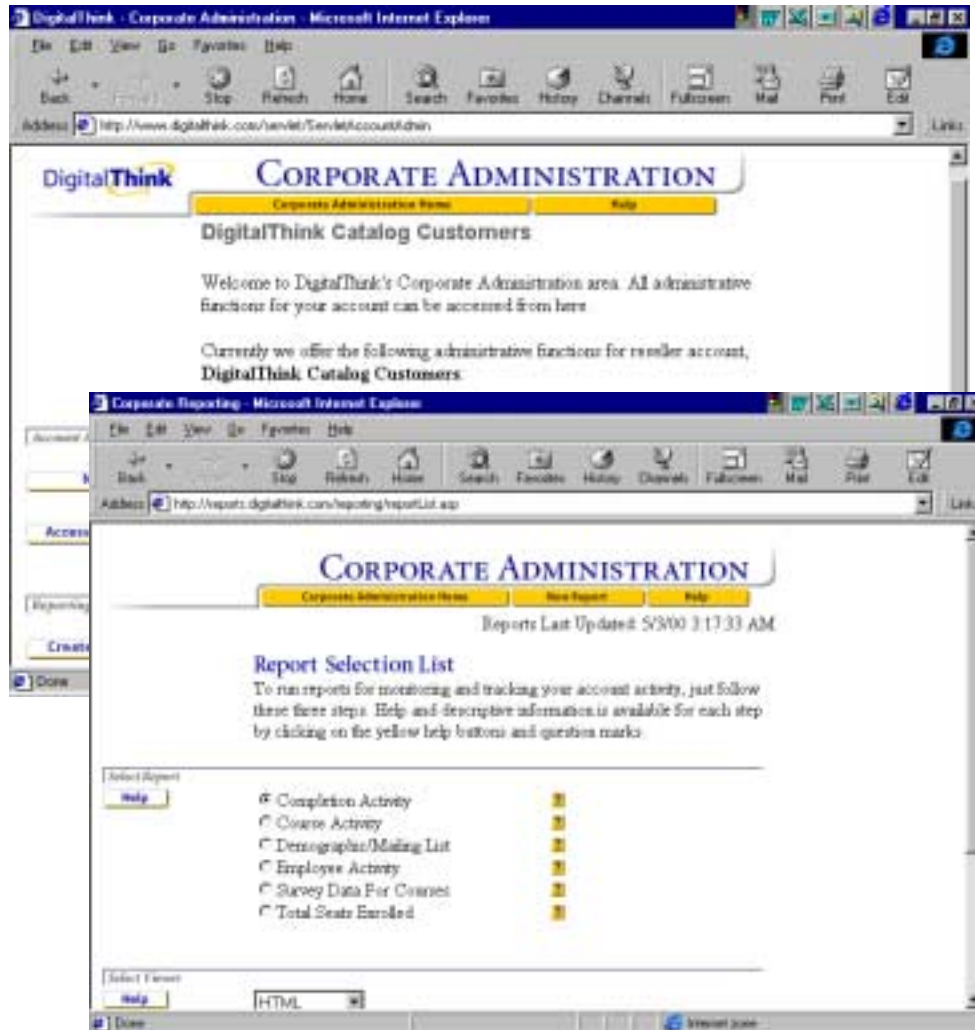


Tracking and Business Data



Internal ERP

# Management Infrastructure



- Registration
- Enrollment
- Scheduling
- Dynamic Catalog
- Integration with HR and Financial Systems
- Skills Management

# Technology Infrastructure

- Scalability
  - Thousands of Users, very long login times
  - Complex objects – graphics, video, text
- Availability
  - Learning is “optional” – people will drop out
  - Frequent off-hours usage
  - Customers and Partners expect availability
- Feature Rich
  - Synchronous and Asynchronous Learning
  - Virtual Classroom Technology is here

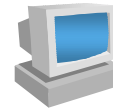
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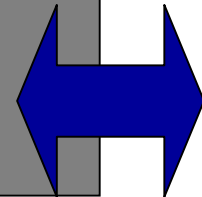
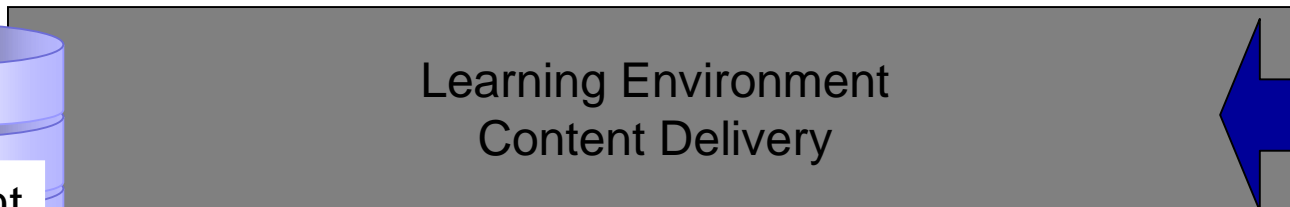
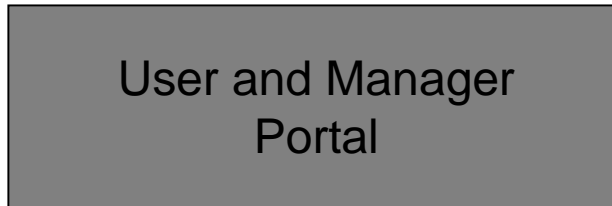
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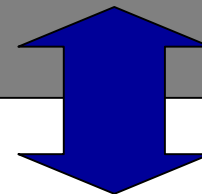
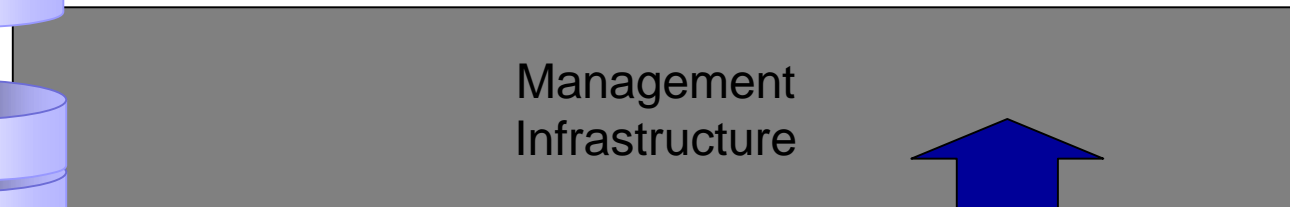
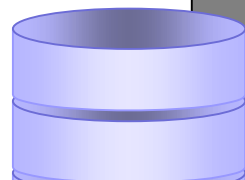
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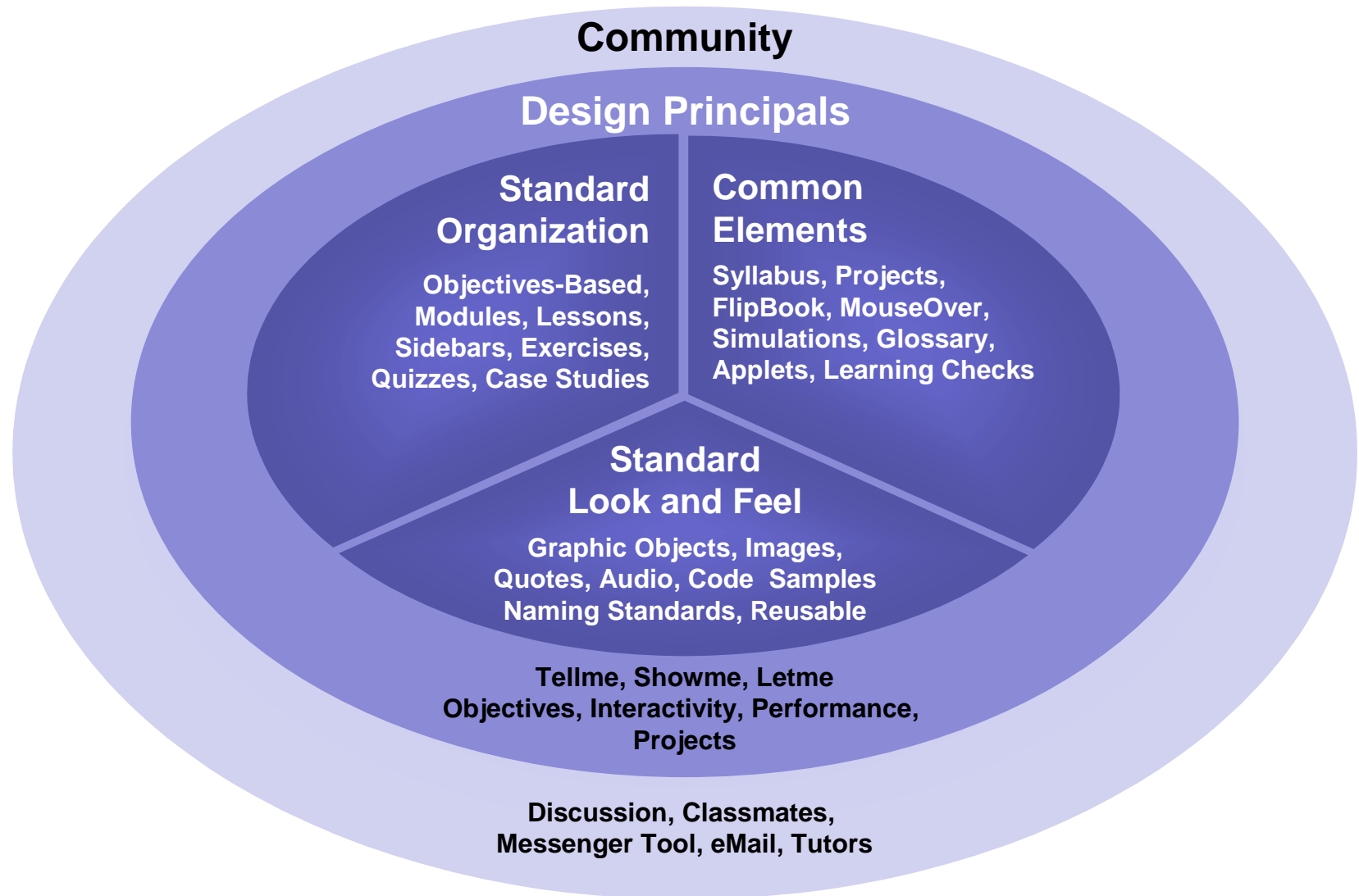
# Content Development Environment

- Less than 1% of the e-learning content needed is available today
- Dropout rates can be very high, so you must be aware of ...
  - Instructional Design Issues
  - Technology and performance issues
  - The right content type for the right audience

# Content vs. Audience

Skills Transfer	Information Distribution	Community Learning
Programming in Java, Value-Based Selling, Introduction to E-Business, Internet commerce, etc.	New product announcement, new company announcement, new company procedures, etc.	The CEO online with the state of the company, the Java guru talking about Enterprise Java Beans performance
Asynchronous	Asynchronous	Synchronous
Web-based course or kiosk	Web-based learning object	Virtual Classroom
Hours in length	< 2 hours	< 1 hour

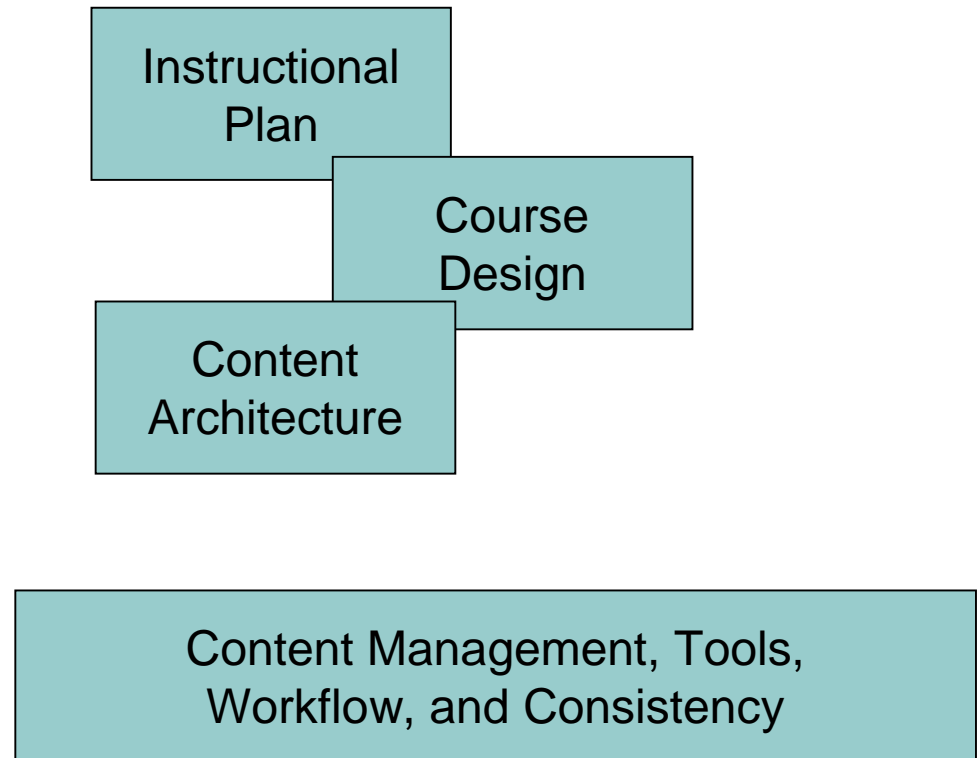
# DigitalThink Instructional Design





# Content Development Methodology

- Define
- Design
- Develop
- Produce
- Publish
- Deploy
- Portal-Enable
- Maintain



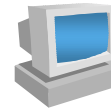
# The Total Solution



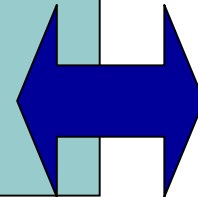
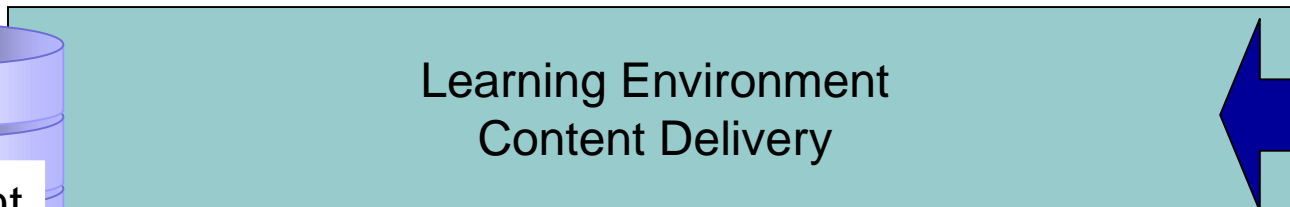
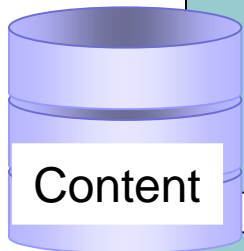
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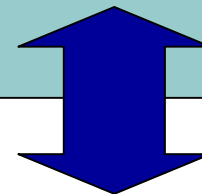
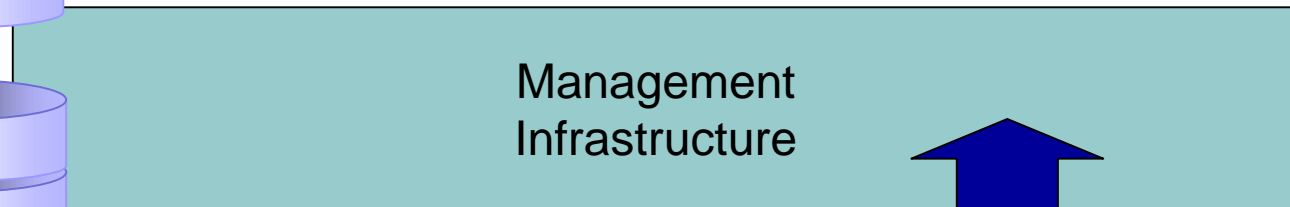
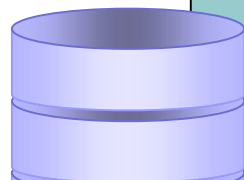
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Learners, Administrators, Managers

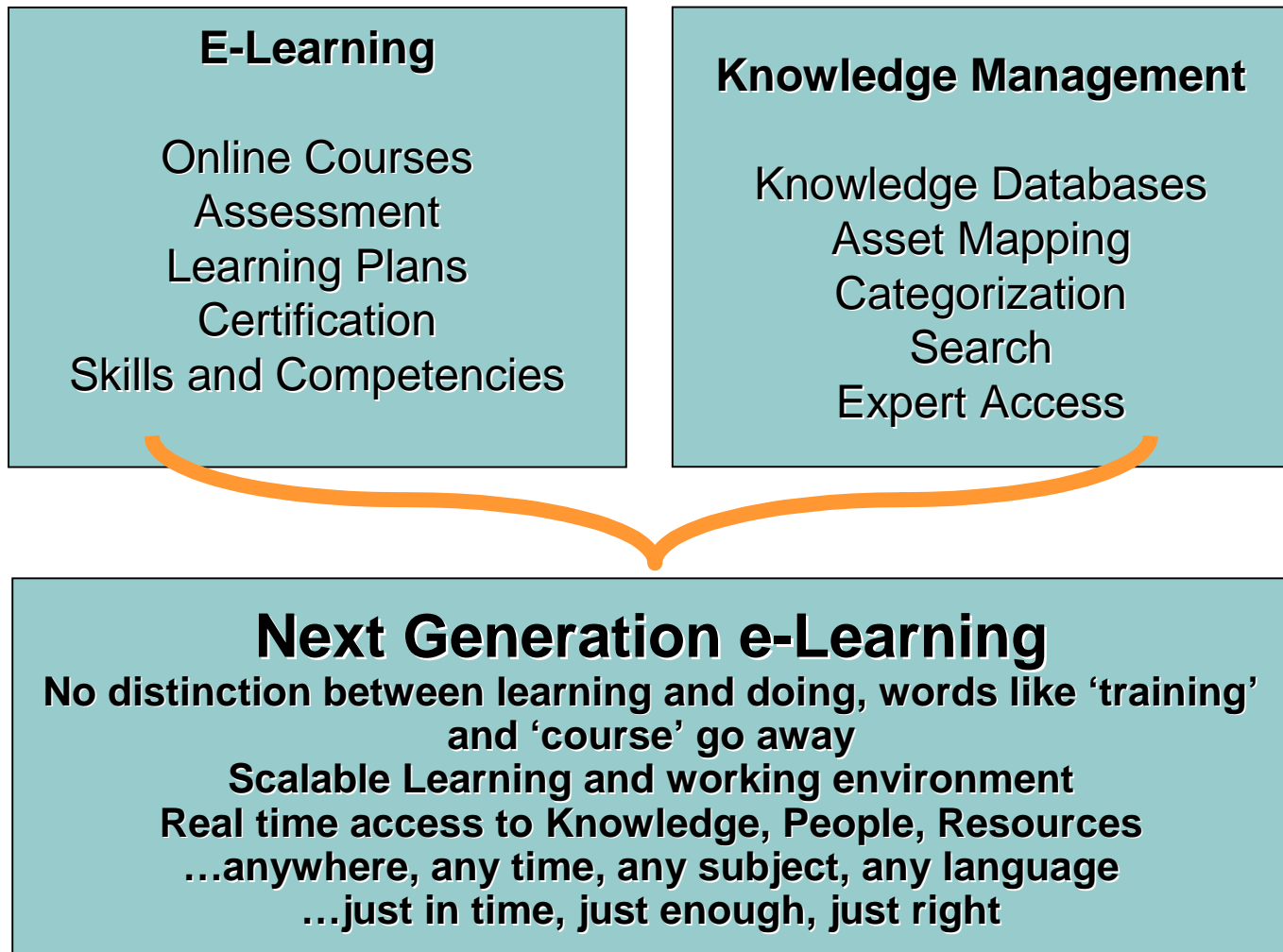


External Content



Internal ERP

# E-Learning and Knowledge Management



# Getting Started

- Find strategic business focus
  - Workforce Transformation
  - Sales Channel Optimization
  - Customer Education
- Build or buy decision
  - Focus on learning and content first
  - Infrastructure and environment second
- Find a partner

## About DigitalThink

We provide a total end-to-end solution for corporate E-Learning.



- Driven through enterprise-class outsourced e-learning **technologies**
- Providing award-winning, business focused learning **content**
- Complemented by world-class business analysis and course development **services**.

# DigitalThink: Industry Leadership

“ DigitalThink has become the standard against which other players compare themselves...”

WR Hambrecht, July 12 2000

“ We believe DigitalThink is uniquely positioned to become the defacto e-learning platform...”

Robertson Stephens, July 7 2000

“ DigitalThink is setting the standards for the exploding B2B e-learning market ”

Chase Hambrech and Quist, May 2000

“ DigitalThink is the category-defining company in this space. ”

Chase Hambrech and Quist, May 2000