

TECHNOLOGY INTEGRATION: THE WEAK SPOT OF SOFTWARE TRAINING ORGANIZATIONS

AND WHAT STRATEGIES
YOU CAN USE
TO OVERCOME IT



TABLE OF CONTENTS

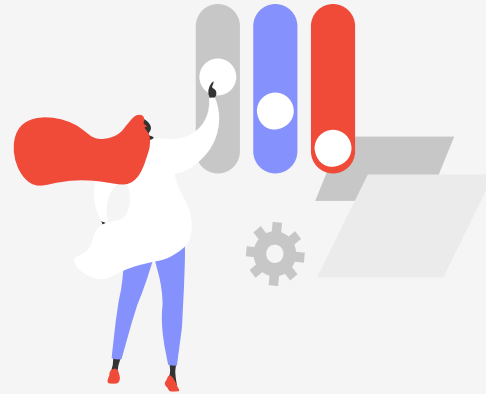
Introduction: Effective training is process-based _____	3-4
What needs to be integrated? _____	5
How to step-up your technology integration efforts _____	6-7
The benefits of tool interoperability _____	8
Easy integration with virtual labs _____	9-10
Conclusion _____	11

EFFECTIVE TRAINING IS PROCESS-BASED

Training Industry (TI) has conducted extensive research to identify precisely what enables training organizations to achieve greatness. Their findings show the most effective training organizations are process-oriented. Specifically, they identify eight key process capabilities:

1. Strategic alignment
2. Content development
3. Diagnostics
4. Delivery
5. Reporting and analysis
- 6. Technology integration**
7. Administration services
8. Portfolio management

TI's research, spanning 11 years, shows when training organizations rate process capabilities in terms of importance, they have mostly held steady over time. However, they report technology integration as one of three process capabilities whose importance ratings have increased.



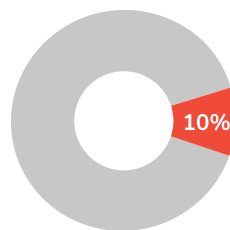
Considering the following, the growing importance of technology integration is unsurprising:

- The number of technologies in learning and development has continuously expanded
- Increased use of enterprise technologies such as HR management and CRM makes technology integration more important, yet more complex
- 90% of training organizations use multiple modalities
- 80% use four or more learning technologies
- 38% use more than eight technologies

This report focuses on technology integration because high-performing training organizations integrate the technologies available in the most effective way. They forge strategies to leverage technologies for the sake of the learner as well as the business.

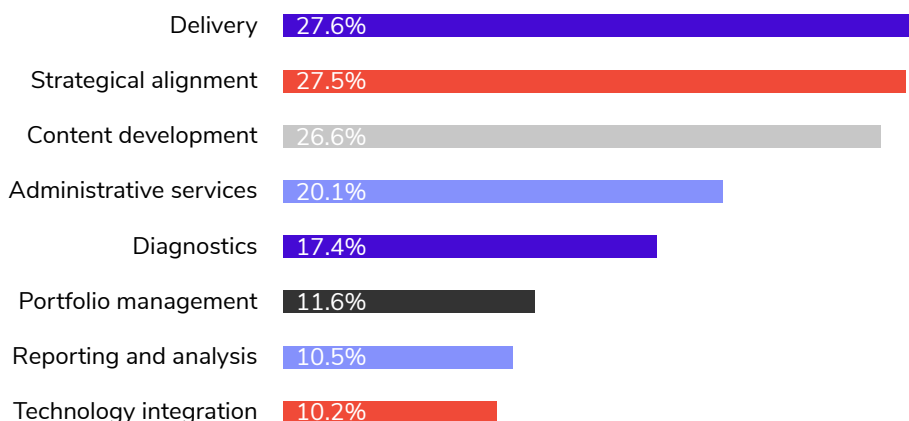
Effective technology integration enables the learner to access the information needed while also enabling the training manager to deliver information to those who need it. It also plays a critical role in the performance of other process capabilities, especially diagnostics, reporting, and analysis.

EFFECTIVE INTEGRATION IS RARE



Only 10% of training professionals feel confident in their ability to implement effective integration practices.

Percent of Training Professionals Whose Training Organization Excels in Each Process Capability



Percentage of respondents, n=1,714

Fewer than 30% of training organizations are great at strategic alignment processes.

Technology integration is the lowest ranking process capability that training organizations excel in. TI claims the measure is unsurprising given its newness and continuous evolution.

IN OTHER WORDS, YOUR TRAINING ORGANIZATION COULD MAKE MAJOR STRIDES FORWARD BY FOCUSING ON OPTIMIZING ITS TECHNOLOGY INTEGRATION CAPABILITIES.

WHAT NEEDS TO BE INTEGRATED?

Let's take a brief look at the technology platforms and learning technologies worthy of attention.

TECHNOLOGY PLATFORMS

Training organizations commonly apply four types of technology platforms:

Administration

The learning management system (LMS) manages back-office tasks, including tracking activities and automating communications between administrators, instructors, and learners. Additional administration technologies may include tools such as knowledge repositories, analytics, and search.

Authoring

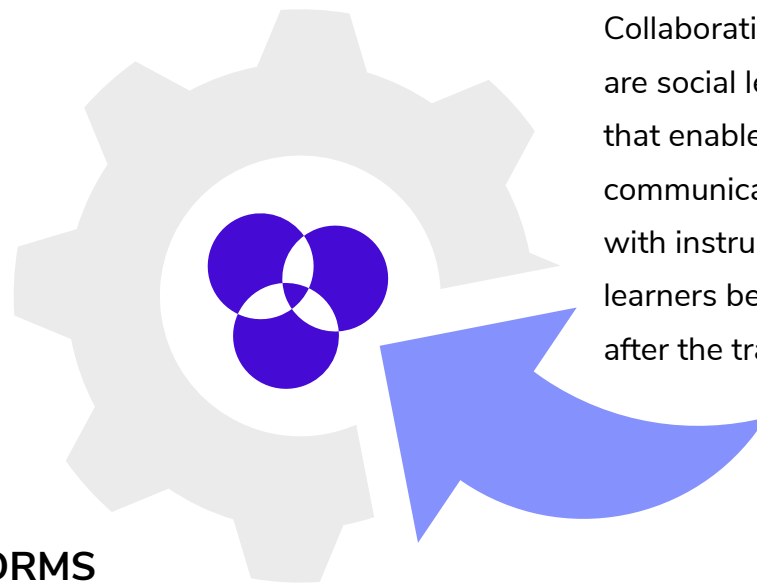
Authoring tools enable subject matter experts and instructional designers to create online training programs without software design skills.

Delivery

Today's delivery platforms, such as virtual labs, deliver content in formal training or informal settings.

Collaboration

Collaboration platforms are social learning tools that enable learners to communicate and share with instructors and other learners before, during, and after the training.



INTEGRATION WITH ENTERPRISE PLATFORMS

It's become increasingly important to integrate training systems with enterprise systems such as CRM, ERP, and various HR applications for recruiting, performance management, compensation, and more. Successful integration improves efficiency by eliminating redundant tasks, such as data entry and maintenance.

As mentioned previously, effective technology integration enables better measurement and reporting. The learning experience becomes more effective when feedback can be delivered on the spot, most notably by informing trainees when they make mistakes - and explaining how to correct them.

HOW TO STEP-UP YOUR TECHNOLOGY INTEGRATION EFFORTS

Following are a series of best practices to enhance your approach to integrating learning technologies, strengthen relationships across business functions, and increase accessibility to the information employees need most.

Use different types of learning technologies

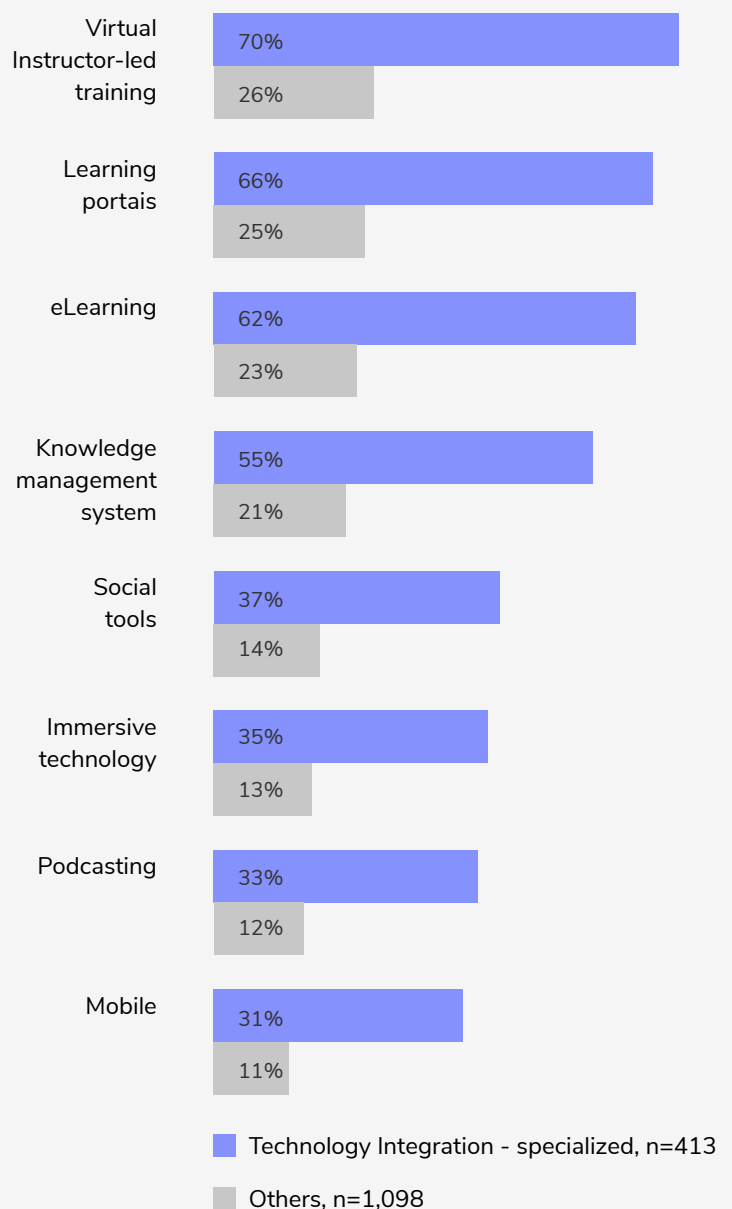
Training Industry lists eight types of learning technologies training organizations use to impact the learning experience, which are presented here in order of popularity:

1. Virtual instructor-led training (VILT)
2. Learning portals
3. eLearning
4. Knowledge management system
5. Social tools
6. Immersive technology
7. Podcasting
8. Mobile

Focus on the technologies that are strategically aligned to your business needs. Invest time in asking stakeholders questions to clarify their challenges and build your technology stack with them in mind.

Use of Learning Technologies by Technology Integration Performance

Percentage of training professionals using the technology



Training organizations that specialize in technology integration are far more likely to use learning technologies. A majority use VILT, learning portals, eLearning, and knowledge management systems.

Integrate content into the delivery systems

Training organizations must master the processes involved in formatting and integrating content into the delivery platforms they use.

The challenge, of course, begins with ensuring the training meets the need of the business. It's also vital to recognize learner preferences may vary among age groups, personality styles, and cultural differences.

Today, it almost goes without saying learners should bring their own devices to the training experience, so the content must be configured to be presented appropriately across various devices.



Develop an integration plan

Training organizations are unlikely to have the technical prowess needed to integrate numerous complex systems. Instead, they should identify and work with the technical experts needed to establish integration requirements and forge a viable plan. The training manager should be prepared to:

- Define what the expected user experience should be
- Develop practices for how information should be input into the systems
- Develop practices for how the information will be extracted and mined

Build relationships with IT

Get in the habit of communicating frequently with the IT department and strive to get a firm understanding of their needs.

Building trust with IT - and other departments - enables you to communicate more clearly and collectively work toward achieving important business goals.

THE BENEFITS OF TOOL INTEROPERABILITY

The IMG Global Learning Consortium has developed a “Learning Tools Interoperability” specification (LTI). Now supported by all major virtual learning environments, the specification creates a seamless way of launching external tools with learning management systems (LMS) and other platforms.

Training Industry suggests the specification delivers the following features and benefits:

- **Single sign-on** - Provides a seamless online environment through a single sign-on portal for all users.
- **Instant integration** - Various learning tools, applications and content can be instantaneously integrated into the LMS and shared across vendor platforms.
- **Shared analytics** - Outcomes analytics can be delivered across a variety of learning tools, applications and content to the LMS.
- **Increased efficiency** - There’s less need for custom integrations because every application interfaces in the same way.
- **Reduced costs** - Training organizations can incorporate externally developed tools without additional labor costs.
- **Development freedom** - Product developers can create web-based learning tools that are automatically integrated into a wide variety of learning platforms.

EASY INTEGRATION WITH VIRTUAL LABS

“Virtual laboratories are web applications that emulate the operations of real laboratories. Virtual laboratories can be accessed anywhere without the need for a physical system and enables students to practice in a ‘safe’ environment before using real, physical components.”

“More than 80% of students who used virtual laboratories scored higher in examinations compared to a control group.”

Excerpt from [10 Emerging Technologies in E-learning](#), Adobe.com

CloudShare delivers the industry’s most scalable, hands-on training experiences to support an array of training scenarios. Our award-winning platform enables software organizations to deliver engaging, hands-on virtual training experiences with minimal effort, and offers the following technology integration advantages:

LMS integration

You can easily automate processes across your systems to eliminate errors, improve the student experience, reduce administrative burden, and increase productivity.

- Integrate with a customer portal to automatically enroll course registrants for training labs.
- Manage all communications from one central system.
- Make all course-related information accessible in central LMS/TMS system.
- Eliminate manual data entry and errors by automatically syncing class, student, and instructor information across systems.

Single sign-on (SSO) integration

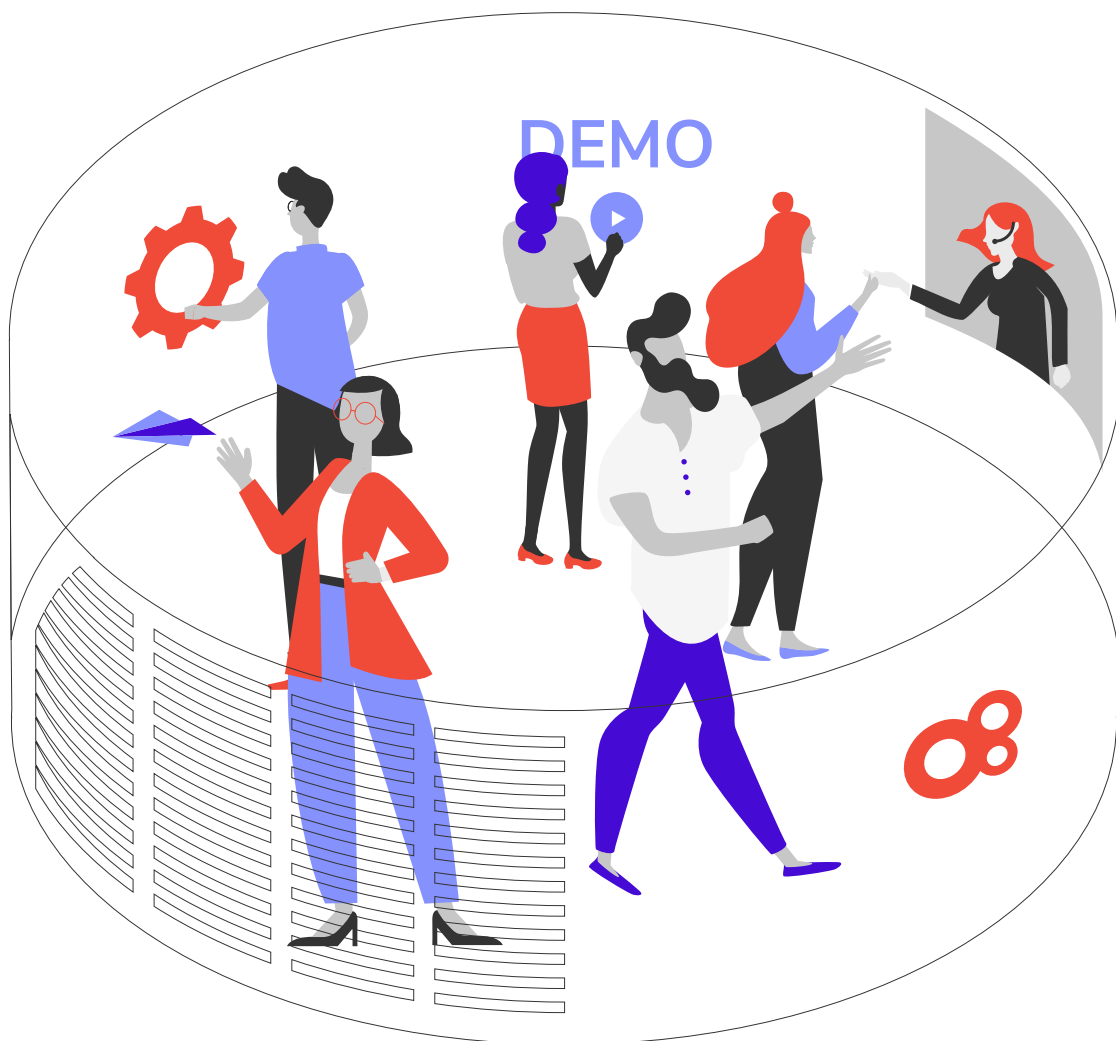
Simplify integration with your user authentication and authorization management across all applications. CloudShare offers native support for the standards used by leading identity providers and custom SSO solutions.

- Eliminate administration hassles when adding and removing users.
- Ease employees into CloudShare usage with a familiar automatic login experience.
- Assign roles through existing user groups and get started quickly.

Integration with any application

A robust REST API offers an endpoint for every CloudShare feature, so you can automate CloudShare functions or integrate them into your cross-application workflows.

- Automate and integrate cloud provisioning.
- Develop automated DevOps and CI processes using labs in the cloud.
- Integrate class features into the flow of your training systems.



CONCLUSION

Training technologies are now part of your enterprise's IT environment. Technology integration gives your training department, and the company at large, the ability to scale its operations, provide access to learners regardless of location, and continuously improve outcomes.

As training organizations adapt multiple technologies to create, deliver and measure training, integration becomes more important.

As a leader of your company's training operations, you must now understand interaction between learning technologies and enterprise systems requires careful planning and execution.



ABOUT CLOUDSHARE

Founded in 2007 and headquartered in San Francisco, CloudShare is a renowned leading provider of hands-on experiences for software training, remote sales enablement, support, sandboxing, and cybersecurity purposes.

CloudShare's award-winning platform enables some of the world's top brands to accelerate their entire customer journey by revamping their software experiences across the board.

To learn more, visit www.cloudshare.com

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