



WHITE PAPER

# Percipio Experience Services: Learning Technology for Today and Tomorrow



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## **EXECUTIVE SUMMARY**

The learning industry continues to evolve in the face of the changing digital business world. In order to meet the needs of the modern workforce, Skillsoft created Percipio, an intelligent learning platform with immersive, multi-modal content. To enable the maximum value of Skillsoft's content within—and across—any learning ecosystem, we've recently developed Percipio Experience Services (PES). This paper examines the key trends in learning, in addition to the motivating factors behind designing and deploying the four elements—Content, Curation, Discovery and Analytics—of our platform, Percipio. We touch on past methods of providing services and explain how PES is shaping the future of content services.

## INTRODUCTION

As the global leader in corporate learning for 20 years, Skillsoft has been on the forefront of the changes that have shaped the learning industry of today. And still, we are adapting. Anticipating new expectations and rising to meet them, preparing organizations to educate and empower their workforces, and constantly innovating to drive real business impact.

In conducting market research for Percipio, we found ourselves once again faced with the need to innovate. In order to offer viable learning options for today's professionals, it's necessary to be beyond the formal, prescribed courses of the past with options like micro-learning and multi-modal content.<sup>1</sup>

Examining the on-demand world around us, several external forces emerged which drove us to re-imagine the purpose, potential and value that learning brings to an organization. These forces are shaping a "new world" for corporate learning and inform our vision for the ways that content and technology come together to create a learning experience ecosystem.

- **Consumerization:** The most popular consumer products, those with 100 million+ users, have become the reference points against which all corporate eLearning is measured. This means the typical user's expectations for ease-of-use, speed and performance, mobility, personalization, search and social networking, are all based on their daily experience with Google, Facebook, Netflix, Apple, Spotify, YouTube and Amazon. Familiar patterns are comfortable, easy to use, and therefore remove barriers to utilization. This familiarity influences learner preferences for the learning experience and even the content itself.
- **Content transformation:** Computer-based training has come a long way in a short time. Videos, eBooks, audio books, podcasts, AR/VR and more—together these provide the large spectrum of modern options needed to satisfy the various learning preferences of the five generations in the workplace today. <sup>2</sup> all of these—micro and macro learning—must be discoverable and trackable in any learning platform. The days of organizations not being able to measure the impact of learning are over.

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<sup>1</sup> "Watch Out, Corporate Learning: Here Comes Disruption." Josh Bersin, Forbes, March 28, 2017.

<sup>2</sup> "Skillsoft Learning 2018 Annual Report." CGS, May 14, 2018.

- **Self-directed learning:** Mature learning organizations recognize the need to develop organizational excellence through a balanced mix of formal and informal learning: prescribed learning to build strategic organizational capabilities and self-directed learning to empower and adapt to the rapidly changing environments.<sup>3</sup> Self-directed learners need to be encouraged to meet the requirements of their current job and prepare for their next, aspirational job. This has led to the development of rich learning ecosystems where content can be delivered to the learners when and where they need it across a broad range of platforms and experiences.
- **Curation:** Both prescribed and self-directed learning need the helping hand of curation to ensure that content is relevant and of sufficient quality to meet the needs of the organization and the learner. Curation also provides context to learner, enabling them to understand the personal and organizational significance of the learning. The act of curation can take many forms including self-curation, SME-curation and machine-curation. In this new world, curation is critical to the success of learners and learning-centric organizations.
- **Success measurement:** From corporate certifications to journey maps to business outcome analytics, best-in-class organizations expect more from their measurement tools than just utilization and smile sheets. The measurement of success has to come from an understanding of business goals, applied learning and business outcome. This requires a coordination across the entire corporate ecosystem to enable the development of KPIs, the aggregation of data from diverse sources and a holistic analytics solution. Easily accessible data is now the lifeblood of learning.

When we considered these influences in the context of building a learning ecosystem, with interoperability among platforms and between platforms and content, it became very clear to us that the way we've handled content integration in the past was not, on its own, going to service the demands of our customers.

## **CONTENT SERVICES: THE PAST**

Traditionally, organizations managed and delivered their instructor-led content and eLearning using a single, robust learning management system (LMS). eLearning was primarily composed of courses, packaged and delivered through the LMS with basic progress and completion tracking. At Skillsoft, we provided Content Services and our OLSA technology, to facilitate the availability of our content in these environments.

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<sup>3</sup> "How to Support Self-Directed Learning in a Learning Organization." Mirjam Neelan and Paul A. Kirschner, ATD, April 20, 2017.

During the development of Percipio, we considered whether or not clients would lose the benefits of the Percipio experience as soon as it was deployed using traditional content services. We questioned:

- Can we enable the utilization of Percipio-based curation, e.g. channels, and support curation capabilities available elsewhere in the ecosystem?
- How can we enable the concept of multimodality (Watch. Read. Listen) in other platforms which may not provide the same support for informal, non-course content?
- What assistance can we provide to ensure a quality discovery and consumption experience for Skillsoft content even when the full learner experience is outside our control?
- How do we ensure the collection and delivery of user activity data regardless of how the content was discovered and launched?

When we measured our historic capabilities against these important questions, it was obvious that we needed to develop a new approach. It also became clear that the industry as a whole was struggling to support the external forces we previously discussed.

## **CONTENT SERVICES: THE FUTURE**

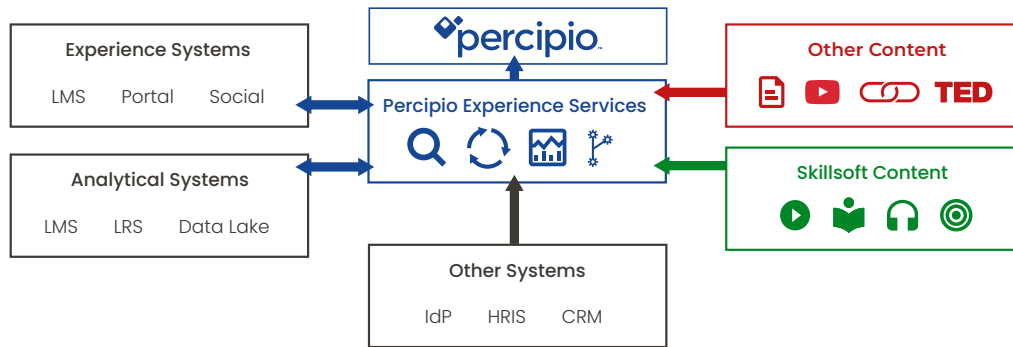
Today's organizations are navigating this new world of corporate learning. They're adding more informal learning to their existing prescribed learning: offering diverse, non-course content; and managing learning ecosystems that link various best-of-breed content and platforms together. In order to play and thrive in this new world, Skillsoft developed Percipio Experience Services (PES) to maximize the value of learning from Percipio content within—and across—any learning ecosystem.

With Percipio Experience Services (PES), customer and partners can embed the different elements of Percipio—Content, Curations, Discovery and Analytics—into their learning ecosystems in flexible ways and gather the data needed to measure ROI.

PES provides access to content, curation and elements of the user experience in the Percipio platform. PES gives organizations the choice of which elements of the Skillsoft content and the Percipio experience to use, how they can be

used and where in their learners' experience these elements appear, while collecting all of learner activity data with the ability to deliver it wherever and however it's needed.

## Percipio Experience Services



Here are just a few of the use cases that PES enables:

PERCIPIO EXPERIENCE SERVICES	
Content	<ul style="list-style-type: none"> <li>• Deploy Percipio-based courses in a traditional LMS.</li> <li>• Embed a video in your corporate portal.</li> <li>• Share and discuss a book in your corporate social platform.</li> <li>• Create an LMS-based learning path with various assets from Percipio.</li> </ul>
Curation	<ul style="list-style-type: none"> <li>• Deploy existing Percipio channels via your LMS to reduce content curation and maintenance.</li> <li>• Curate a channel of content from a wide range of sources and link to it from your CRM.</li> </ul>

Discovery	<ul style="list-style-type: none"> <li>• Embed Percipio Search in your corporate intranet.</li> <li>• Display Percipio-generated recommendations to users in your learning portal.</li> <li>• Use Percipio ELSA to facilitate learning discovery from within any browser-based application</li> <li>• Help learners quickly find audio and text-base content on their mobile devices.</li> </ul>
Analytics	<ul style="list-style-type: none"> <li>• Pull all your prescribed learning activity back into your LMS or HRIS system.</li> <li>• Add all your Percipio learning data to an xAPI-based Learning Record Store for a complete picture of organization learning.</li> <li>• Enable deep analytics by aggregating learning and sales data in a data lake to measure true ROI for your sales training.</li> </ul>

All of these are possible through of a suite of tools designed to handle key workflows: content curation, learner discovery, user navigation, authentication, activity tracking and more. We've designed PES to use a range of technologies enabling each use case to be serviced in multiple ways based on the technological capabilities of each organization.

## **PES: MOVING BEYOND COURSE-CENTRIC LEARNING**

The delivery of eLearning over the last 20 years has been very course-centric, with a large dependence on SCORM and AICC to facilitate the interoperability between content and LMS. More recently, we have seen this dependency limit Skillsoft's ability to provide a complete, end-to-end experience for our video, book, and audio content, as well as other products like Skillsoft's former flagship leadership product and Leadership Advantage. These products don't fit within the traditional framework, forcing organizations to sacrifice experience or contend with a more complex implementation.

Given the opportunity to reimagine content services, the strategic approach taken with PES was designed to address these limitations and ensure the best possible experience for everyone involved, from IT developer to administrator to learner. At the center of the strategy are several key principles:

- **Optimize experience:** Optimization requires a focus on creating the best possible experience within each target platform. Solutions will take advantage of vendor-specific capabilities with a goal of improving discoverability, presentation, and tracking. By introducing Percipio's native treatment of multi-modal content, discovery tools like ELSA, and channels, we create a complete, modern learning experience embedded within a learning ecosystem. Additionally, Skillsoft will take a more active role in designing and maintaining the experience in each platform.
- **Enable curation:** Simplifying the deployment and management of Skillsoft's large library is a central goal for PES, and channels represent an excellent approach to achieving it. By deploying a Percipio channel, instead of the individual assets within the channel, organizations can leverage Skillsoft's curation services and reduce the volume and subsequent maintenance of content. PES will also enable curation within the target system providing choice to curators for where and how curation occurs.
- **Provide rich analytics:** While the use of existing eLearning standards is a necessity, modern standards, like xAPI, solve real business problems not possible with the old standards. xAPI enables PES to collect user activity for non-course content in a rich, comprehensive way. In addition, it supports tracking of user activity regardless of where and how the content is discovered and launched. This is game-changing as it provides a complete activity tracking solution for the channel deployment described above. All learning and development professionals should be familiar with xAPI as it is a core technology in building a learning ecosystem that can deliver on the promise of measuring the true business impact of learning.
- **Manage content lifecycle:** Content lifecycle, from initial publishing to maintenance to retirement, is being re-imagined with Percipio. PES is designed to provide organizations the flexibility to decide when and how new content is deployed to their ecosystem, automatically update content as it changes, notify systems of pending retirements and replace content. The net result will be assurance that learners are seeing the latest content while reducing overall content management administration.



- **Aggregate content:** As a learning experience platform, Percipio will enable the curation, discovery and consumption of content from a wide range of sources. PES will support any content that can be accessed in Percipio, Skillsoft or external. This will provide organizations additional options for content deployment and curation.
- **Utilize connectors:** Finally, Skillsoft is building a wide range of connectors to enable turn-key integrations with a range of industry-leading platform and content vendors. Utilizing connectors allows organizations to select the exact services and technologies they need to meet their business objectives and technical capabilities.

## **DESIGNED TO GROW WITH YOUR ORGANIZATION**

Building PES in accordance with the principles highlighted above, and supporting all traditional content services, enables PES to grow with your organization. From desktop to mobile, LMS to ecosystem, and basic content deployment to the full Percipio experience, feel empowered in modernizing your organization's learning experience with Percipio and PES.

## **LEARN MORE**

To request a demo of PES, please contact your sales representative or call 866-757-3177.

## AN IN-DEPTH LOOK AT PES

The following sections divide PES into a series of core capabilities focused on the four areas we have already discussed: content, curation, discovery and analytics. In each area we present common workflows and highlight the core tools and services that will be part of the PES solution.

### CONTENT SERVICES

Content services help facilitate the launching and consumption of Percipio content and the Percipio experience from another system. These services provide the backbone of PES, enabling a rich learning experience and simplified content management.

WORKFLOWS	TOOLS AND SERVICES
Content description (and packaging)	<ul style="list-style-type: none"> <li>• Shareable deep links with Open Graph support</li> <li>• CMI-5 course packaging</li> <li>• SCORM course packaging (limited tracking)</li> <li>• Connectors with industry-leading LMSs</li> </ul>
Automatically deploy content	<ul style="list-style-type: none"> <li>• Connectors with industry-leading LMSs</li> <li>• Scheduled file feeds</li> <li>• REST-based API</li> </ul>
Embedded content	<ul style="list-style-type: none"> <li>• Embed video player in any supporting web app</li> <li>• Embed audio player in any supporting web app</li> <li>• Embed book reader in any supporting web app</li> </ul>

## CURATION SERVICES

Curation services help you aggregate and curate content from multiple sources into Percipio to be discovered and consumed. Curation services also allow the launch of channels in place of or alongside the individual learning asset to simplify the curation and maintenance efforts.

WORKFLOWS	TOOLS AND SERVICES
Discover content for curation	<ul style="list-style-type: none"> <li>• Discover content within Percipio from all Skillssoft-recognized content providers</li> <li>• Discover and tag content from any browser using ELSA</li> </ul>
Add content to Percipio	<ul style="list-style-type: none"> <li>• Automatically ingest rich metadata from all Skillssoft-recognized content providers</li> <li>• Automatically monitor content health</li> </ul>
Describe and deploy a curated channel	<ul style="list-style-type: none"> <li>• Utilize the Content Services described above with Percipio channels</li> </ul>

## DISCOVERY SERVICES

Discovery Services provide access to elements of the Percipio experience, from a basic search to the full platform, to aid in building a content discovery experience across your learning ecosystem.

WORKFLOWS	TOOLS AND SERVICES
Learning in the flow of work	<ul style="list-style-type: none"> <li>• ELSA browser plugin</li> <li>• Shareable deep links with Open Graph support</li> <li>• Federated Search via REST API</li> <li>• Search widget</li> </ul>

<p>Search Percipio-based content</p>	<ul style="list-style-type: none"> <li>• ELSA browser plugin</li> <li>• Percipio web app</li> <li>• Percipio mobile app</li> <li>• Federated Search via REST API</li> <li>• Search widget</li> </ul>
<p><b>View</b> recommended content</p>	<ul style="list-style-type: none"> <li>• ELSA browser plugin</li> <li>• Percipio web app</li> <li>• Percipio mobile app</li> <li>• Federated Recommendations via REST API</li> <li>• Recommendations widget</li> </ul>

### ANALYTICS SERVICES

Analytics services provide the ability to view, transform, and exchange user activity data and the resulting analytics. Percipio can collect activity data provided by both Percipio-based and external content. We’ve also designed these services to deliver this data to a variety of systems for centralized collection, analysis and reporting.

WORKFLOWS	TOOLS AND SERVICES
<p>Collect data from user <b>activity with</b> content</p>	<ul style="list-style-type: none"> <li>• xAPI</li> <li>• Skillsoft-recognized content providers</li> <li>• SCORM</li> <li>• AICC</li> </ul>
<p>Exchange activity data <b>with LMS, LRS, or other</b> system</p>	<ul style="list-style-type: none"> <li>• xAPI</li> <li>• Connectors with industry-leading LMSs</li> <li>• Scheduled file feeds</li> <li>• CMI-5</li> <li>• SCORM</li> </ul>

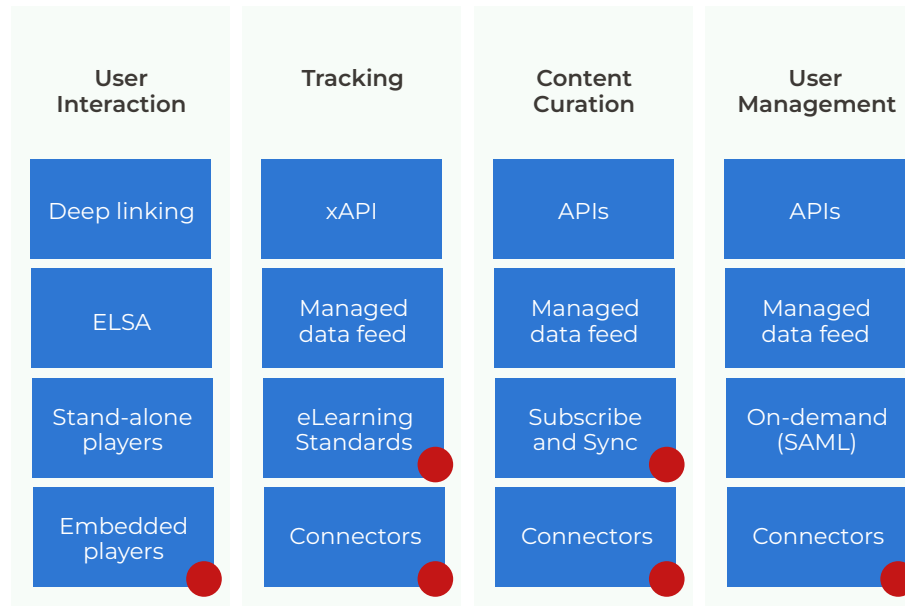
### CENTRAL SERVICES

Central services offer a number of necessary tools to support the overall integration of Percipio. All PES are built on top of a secure, robust and scalable infrastructure designed to meet the demands of thousands of clients and millions of users.

WORKFLOWS	TOOLS AND SERVICES
Authentication	<ul style="list-style-type: none"> <li>• SAML-based single-sign-on (SSO)</li> <li>• Connectors with Skillssoft recognized content providers</li> </ul>
User management	<ul style="list-style-type: none"> <li>• Automated account management via API</li> <li>• Automated account management via file feed</li> <li>• Automated account management via system connector</li> <li>• Real-time account creation and updates via SSO</li> </ul>

### Tools

Common Use Cases



● = Roadmap

## ABOUT THE AUTHOR

Jim Renner has over 24 years of industry experience building and deploying learning technology solutions for organizations of all types. As VP of Product Management, Jim provides strategic direction for Skillssoft's Percipio platform with a focus on system integration, administration, and content services. He and his team apply a data-driven approach to fixing real-world problems while also improving the lives of learners, administrators and technologists. Previously, he worked as a software developer, sales engineer, and product manager working on a variety of products from integration tools to mobile apps.




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## ABOUT SKILLSOFT

Skillsoft is the global leader in corporate learning, delivering beautiful technology and engaging content that drives business impact for modern enterprises. Skillsoft comprises three award-winning solutions that support learning, performance and success: Skillsoft learning content, the Percipio intelligent learning platform and the SumTotal suite for Human Capital Management.

Skillsoft provides the most comprehensive selection of cloud-based corporate learning content, including courses, videos, books and other resources on Business and Management Skills, Leadership Development, Digital Transformation, IT Skills and Certification Training, Productivity and Collaboration Tools and Compliance. Percipio's intuitive design engages modern learners and its consumer-led experience accelerates learning. The SumTotal suite features four key components built on a unified platform: Learning Management, Talent Management, Talent Acquisition and Workforce Management.

Skillsoft is trusted by thousands of the world's leading organizations, including 65 percent of the Fortune 500. Learn more at [www.skillsoft.com](https://www.skillsoft.com).