Lessonly

2016 - 2017

LEARNING TRENDS REPORT

CONTENTS

INTRODUCTION: *Where we are and where we're going*

To understand where learning for teams is headed in 2017, it's helpful to reflect back on the theories and themes that have emerged over the past 12 months. Sifting through the discourse of industry experts helps uncover new opportunities and trends that may guide team learning programs for the next year—and beyond.

This report gathers information published by more than 35 thought leaders in the learning, training, and instructional design worlds. Blogs, white papers, and other forms of content tell the story of what's been trending in 2016. One overarching thesis emerged, along with some other very compelling themes.

NEW TECH WILL SHAPE THE FUTURE OF LEARNING

Growth in the field of team learning continues to mirror the rapid pace of innovation across the business technology landscape at large. Specifically, these phenomena are increasingly shaping how progressive companies construct, implement, and use team learning systems:

- *diverse software-as-a-service (SaaS) products enable existing business models to adapt and scale*
- *a growing network of connected devices provides increasing on-demand convenience*
- *the minimum viable product model gets prototypes into customers' hands—and businesses—sooner*

There's a growing recognition that providing more team learning opportunities, with more context, drives greater productivity and business value. And such unconstrained thinking is reflective of thought leaders in the learning industry. For example, the number of articles that covered new learning technologies or glimpsed into the "future of learning" increased substantially over the course of 2016. The month of January saw only 2 posts about the future of learning from our list of thought leaders and influencers. By the month of September, that number exceeded 16.

Take, for example, an April post from Elliot Maise. As an early Oculus Lab developer, Maise partnered with the company to set up VRLearn, a project aimed at engaging "corporate learning leaders and the makers of VR technology to shape and explore the educational affordances." VR enables learners to practice extreme situated learning, which is defined by Northern Illinois University as "creating meaning from the real activities of daily living where learning occurs relative to the teaching environment." VR transports learners to entirely new environments and allows them to interact in that environment.

In another progressive post, Ryan Tracey at E-Learning Provocateur discusses new and exciting use cases for 3D printing in team learning environments:

In this context, I suggest we turn to the students from St. Stephen's for inspiration. When the kids use 3D printing to solve a problem, a by-product of that activity is collaboration... We could split our colleagues into teams and task them with producing a 3D artifact; whether or not that artifact has practical application is irrelevant. What is relevant is how the team members work together to achieve the goal. The technology is the vehicle with which a collaborative situation can be engineered, experienced, observed, and reflected upon.

Better technology—whether simulated immersion via virtual reality or leveraging 3D printing to foster collaboration—leads to deeper learning experiences. And learning experiences like these free people from the constraints of traditional classrooms, instead framing learning in contexts and experiences that resonate.
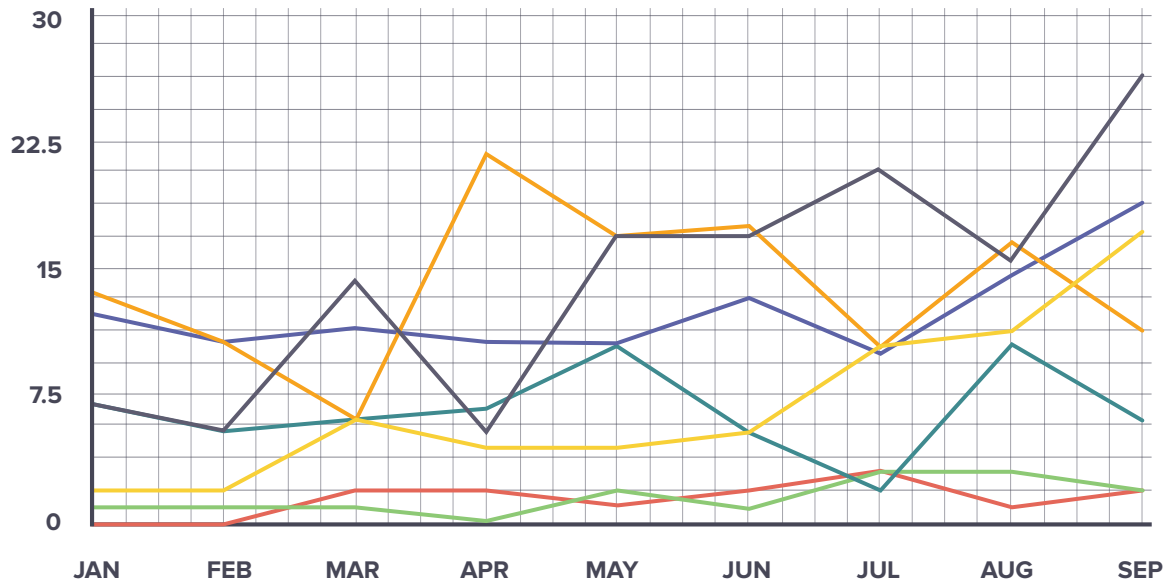
This graph shows volume of posts in curated categories by month from our learning experts over the past year. Some topics varied in coverage while others stayed consistent. These numbers proved helpful in gauging the interest in particular topics.

Legend: AR / VR / AI, Gamification, Future of Learning, Crowdsourced/Peer Learning, Learning Science, Design, LMS Changes
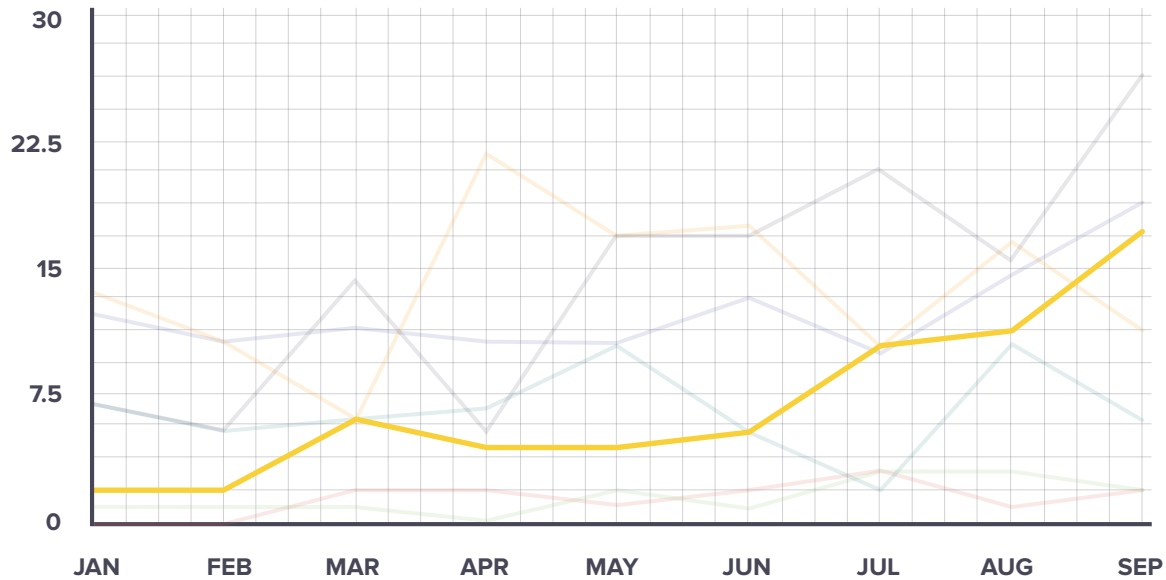
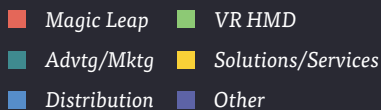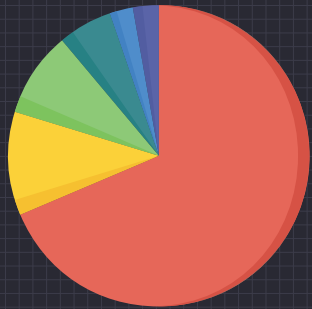Thought leader posts concerning the Future of Learning was one of the clearest areas of growth in 2016.
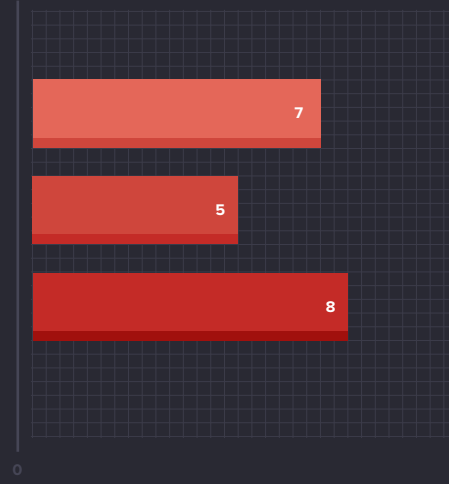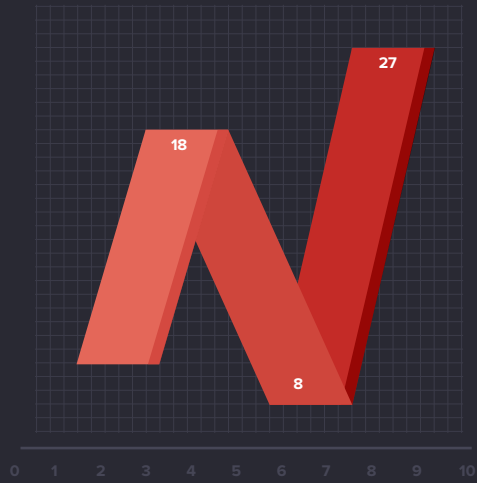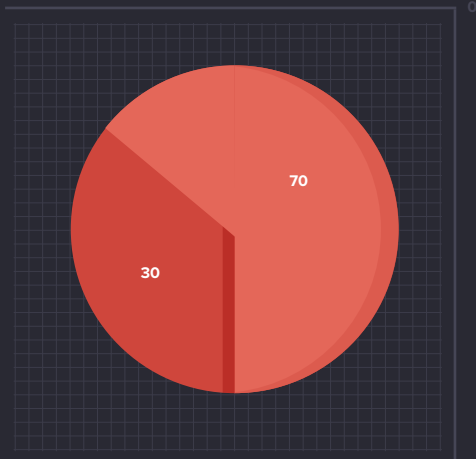
TREND #1

Will VR, AR, and AI find a learning audience?

WILL VR, AR, AND AI FIND A LEARNING AUDIENCE?

AR/VR Investments[1]
($1.1B in Q1 2016)

- **Magic Leap**
- **Advtg/Mktg**
- **Distribution**
- **VR HMD**
- **Solutions/Services**
- **Other**

Investments in AR/VR topped $1.1 billion by March of this year, eclipsing 2015's total AR/VR investment ($700 million) in just 3 months.

If, over time, we regard 2016 as a milestone year for technology, we'll remember it for the increased commercial emergence of virtual reality, augmented reality, and artificial intelligence. Though not created this year, these complex technologies have spread quickly—largely through the proliferation of mobile devices—into the hands of people around the world. Consider, for example, the explosion of Pokemon Go (AR) and the increasing appearance of mobile phone headsets (VR). This increased adoption, and lower barrier to entry, makes integrating these new technologies into learning systems more feasible than ever before.

Google Trends shows steady growth of the term virtual reality since 2014, with searches spiking multiple times during the past year. Companies like Oculus and Vive have led the mainstream emergence of this industry, with backing from the likes of Facebook and HTC. In their wake, several other VR systems have been created that rely on nothing more than a smartphone and a piece of cardboard. Given that more than 68% of U.S. adults own a smartphone, this technology presents a huge market opportunity for the learning industry.

Ryan Tracey shared his ideas for how managers might practically implement VR in a workplace setting:

Preparatory use of VR is also being leveraged by a range of players in the workplace. For example, engineers [use VR to] preview the hazards of mining; electricians [can simulate] high-voltage switches; while someone I know in a rural fire service is looking into using 360° video to help volunteer firefighters get a sense of what to expect in a bushfire.

Similar applications are more difficult to envisage in corporate [learning and development], so my advice is to return to the value proposition of the preparatory use of VR. Ask yourself: What will your colleagues be doing that is high-stakes? Bearing in mind that in the corporate sense, "high stakes" is probably financial.

While virtual reality immerses users in a completely artificial 'space,' augmented reality presents layers of new information superimposed on the 'real world.' Both have potential functions in the learning industry, but will most likely have slightly different use cases.

Expected Worldwide AR/VR Revenue [2]

```
$ in Billions
180
160                      162
140
120
100
80
60
40
20      5.2
0
      2016          2020
```
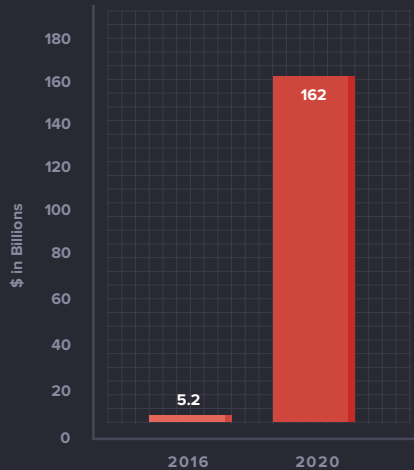
"With powerful smartphones powering inexpensive VR headsets, the consumer market is primed for new paid and user generated content-driven experiences."

Four Unicorns in the AR/VR Space [3]

oculus   blippAR

mindmaze   magic leap

"Unicorns" are privately-held companies valued at $1 billion or more, named for how rare they (used) to be.

Learning technologist Clark Quinn sees augmented reality as having great potential to impact learning:

[With augmented reality,] we're not only presenting the underlying relationship [between the real world and augmentation], but also asking them to use it in a particular context... We can [use AR to] layer on the conceptual relationships that underpin the things we observe [and experience in the real world], to show flow, causation, forces, constraints, and more.

And while it was a bit late to the party in 2016, artificial intelligence is definitely having a moment heading into 2017. And no we're not talking about Apple's Siri or Amazon Echo. Dreamforce 2016, easily one of the largest business technology conferences in the world, featured a headlining keynote about AI's potential impact in a corporate setting.

Additionally, Google is bringing its voice-activated and artificial intelligence-driven Assistant to millions of phones (and homes) around the world. Assistant is more advanced than both Siri and Echo because it is built with Google's take on machine learning: complex algorithms compile and synthesize information from users to provide better responses for everyone. Assistant learns and gets "smarter" over time.

So how might AI help enhance learning for teams? Jane Hart, founder of UK-based Centre for Learning & Performance Technologies, had a few ideas earlier this year:

- *personalized learning and training course recommendations*
- *personalized feed(s) of relevant, curated content*
- *on-demand, personalized productivity and performance support*
- *virtual learning coaches/assistants (see this example of a university teaching assistant)*
- *virtual learning concierge services (perhaps along the lines of this Radisson Blu hotel concierge bot)*

Developers need to address plenty of questions before these new technologies see adoption into widespread learning systems. Cost of implementation looms large for these VR, AR, and AI experiences as organizations look to balance the effort spent on creating such in-depth learning with improved outcomes. For roles like firemen and electricians, immersive learning could be invaluable—life-saving even, but for others it might be overkill. Regardless of niche, trends in 2016 show that broad interest in this technology definitely exists.
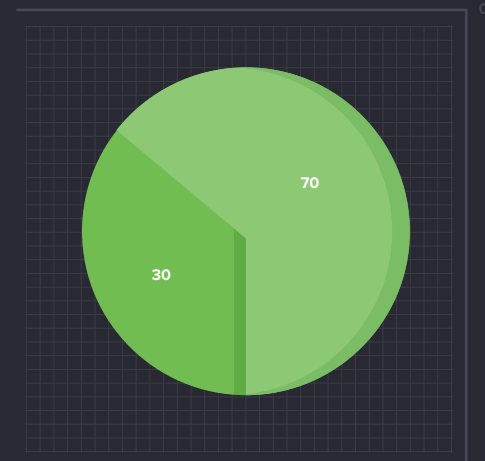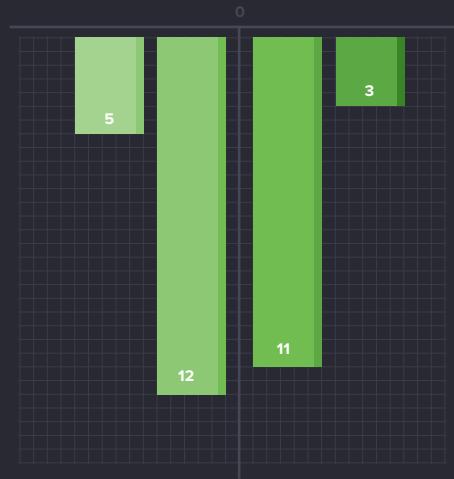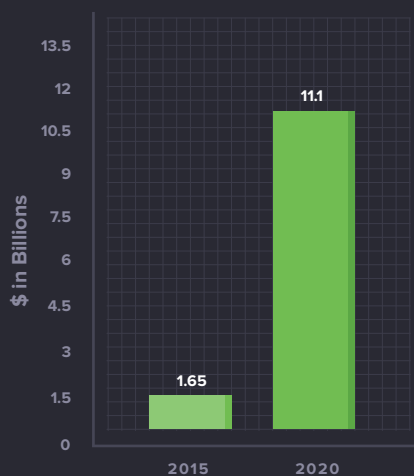
TREND #2

Will gamification find a permanent foothold in learning software?

$ in Billions

13.5
12
10.5
9
7.5
6
4.5
3
1.5
0

11.1

1.65

2015   2020
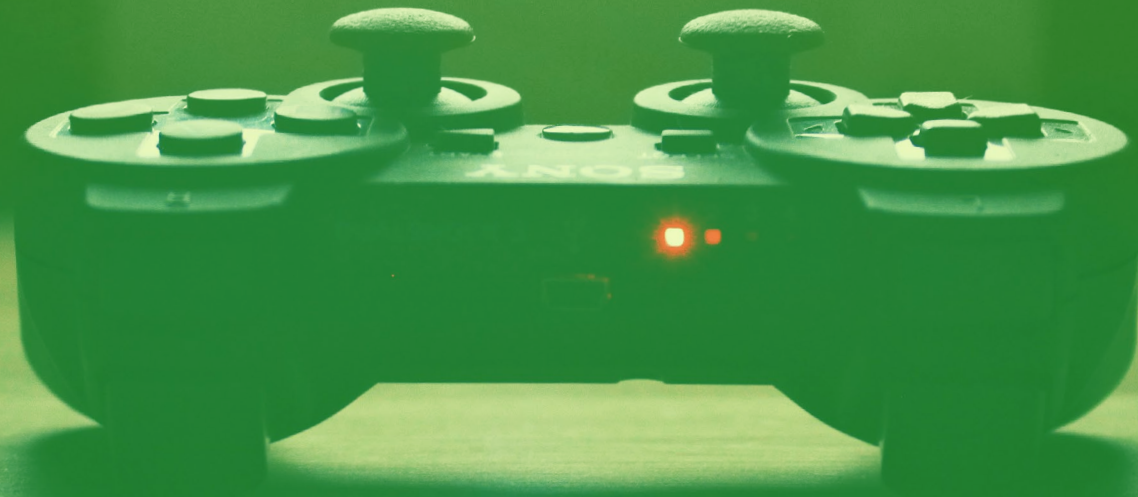
Global gamification market is set to grow from USD 1.65 billion in 2015 to USD 11.10 billion by 2020.

Trend #2

WILL GAMIFICATION FIND A PERMANENT FOOTHOLD IN LEARNING SOFTWARE?

Learning technologist Karl Kapp states that, "2015 was the year that gamification 'got real' for learning and development." And thanks to a single mobile game, gamification repeated as one of the hottest buzzwords in 2016.

On July 6, 2016, the augmented-reality game Pokémon GO launched to mobile phones around the world. An overnight sensation, professionals in fields ranging from marketing to game design immediately began working to crack the game's code on user engagement. The learning industry was certainly not immune to such curiosity. Among other learning thought leaders, Donald Clark, Elliot Maise, and David Kelly wrote about both gamification generally, and Pokemon GO specifically. In David Kelly's article about the game's application in learning, he notes its powerful social component:

The utilization of a smartphone's GPS to lead people through an exploration of a physical space has obvious applications for learning. In Pokémon GO, actual physical landmarks are used as refueling stops in the game. That same application could easily be used to

help people learn more about a physical location, such as part of a new hire orientation program or new student orientation.

A deeper analysis of the social component of the game could also have value for learning. The underlying aspects of the game that lend itself so much to a social experience could be replicated in experiences designed for learning and collaboration.

But why did Pokémon GO capture the attention of learning experts so completely? Kapp says that gamification "got real" in 2015. But for the most part, that meant completion badges and score challenges. Pokémon GO leapt dramatically ahead in engagement because of a factor Donald Clark notes:

[A] return to more appropriate forms of learning, for things that we actually learn by doing, now in the real world, will be a welcome break from the absurdity of the lecture, flipchart, page-turning e-learning and classroom, as the delivery channel for almost all learning. To actually DO experiments in science, practical tasks and learn skills, could revolutionize vocational

> **2015 was the year that gamification 'got real' for learning and development.**
> And thanks to a single mobile game, gamification repeated as one of the hottest buzzwords in 2016."

learning, giving it a cool kudos on par with its academic partner.

Before this app's explosion, learning systems wouldn't dare to expect such a level of interaction from learners. It's important to note that Pokémon GO is still an exception to the rule of poorly-implemented gamification tactics that never gain traction with users. Jane Bozarth, author at Learning Solutions Magazine, lays out two hypothetical situations where companies rolled out social learning and gamification: One succeeded, while the other one fell flat. What made the difference between the two?

It's not about "doing social." It's about supporting workers as they work by giving them the time and the right space to talk about it. It's about listening. And it's about using social tools to support conversations and performance already in progress.

Jane makes the case that Pokémon GO proves gamification succeeds when you give users a platform and, as difficult as it sounds, let them make it their own. Intentionally allowing for user and social behavior to shape experiences, tools, and games creates potential for immense buy-in and engagement, like that which led to the overnight success of Pokémon GO.

For the second straight year, gamification vaulted to the top trend in the learning industry. This time, for an entirely new way of learning. Look for learning and development to continue to try and replicate the success that Pokémon GO achieved with augmented reality, potentially with improved results.
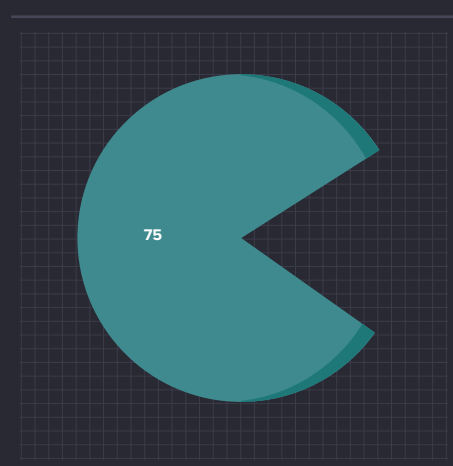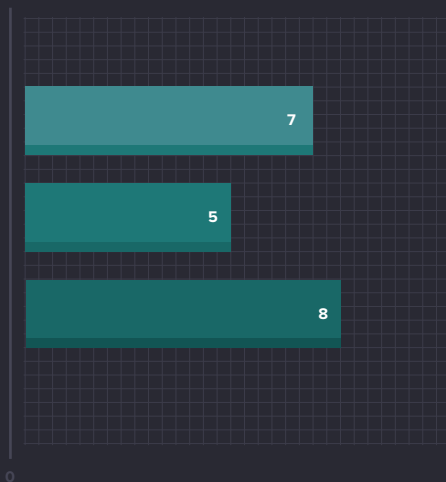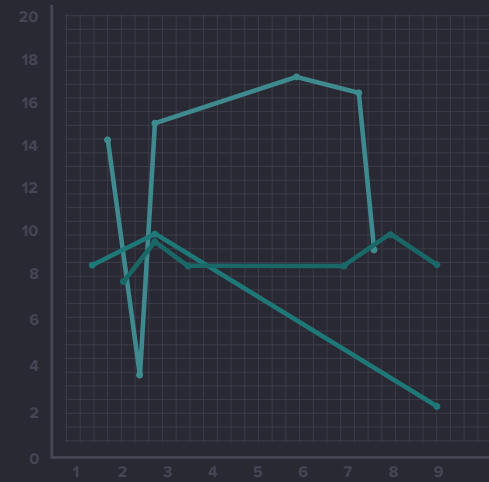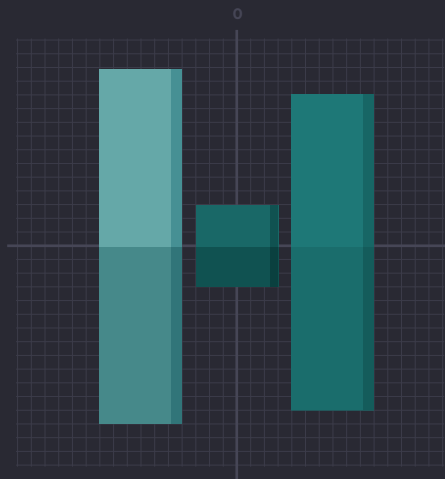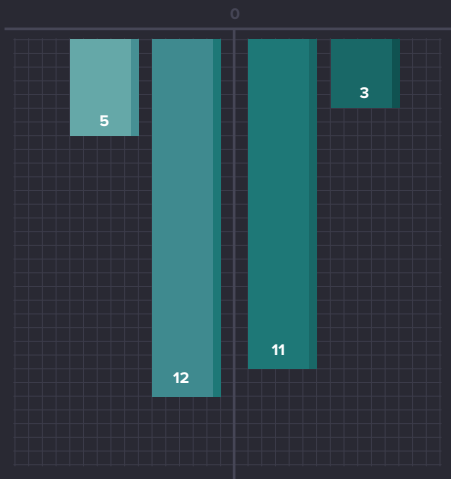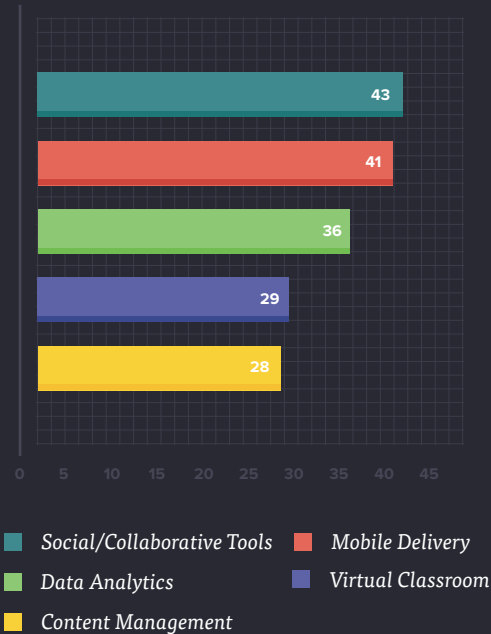
TREND #3

Democratized, social, and peer-to-peer learning

- **Social/Collaborative Tools** — 43
- **Mobile Delivery** — 41
- **Data Analytics** — 36
- **Virtual Classroom** — 29
- **Content Management** — 28

The top targets for technology exploration are social/collaborative tools (43% of respondents) and mobile delivery (41%).

Trend #3

DEMOCRATIZED, SOCIAL, AND PEER-TO-PEER LEARNING

With technology granting access to more content than ever before, 2016 saw a rise in democratized and social learning, a trend which learning technologist Steve Wheeler predicted at the beginning of the year:

Learning will become increasingly personalized. We will have more choice over what we learn, how we learn it, when and where we learn it and over the pace of our learning. [Massive Open Online Courses] won't be the end. They are just the start of a huge wave of democratized learning, but that won't stop large corporations trying to muscle in to exploit the surge of interest in 'free content.'
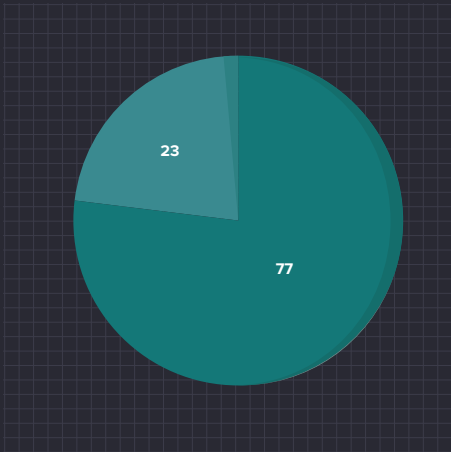
Democratized learning is, put simply, learning content created by learners themselves. The benefit? Learners, as consumers of information, will better engage with that information made by their peers. Again, Elliot Maise spoke about this trend, saying,

It will be interesting to track how learners expand and hone their skills of being their own "Producers" and how learning functions leverage this to curate a more effective and efficient set of learning choices for the rest of the enterprise.

Of course, varying levels of learner experience can affect this type of learning, but the industry has shown increasing willingness to accept that risk. The selected learning thought leaders consistently covered democratized and social learning in 2016, penning 26 articles specifically dedicated to these topics.

Social learning also integrates social media and general peer feedback into the learning process. "Social learning is powerful," Connie Malamed wrote earlier this year, "Provide ways to build community, when this is appropriate for the audience and content." That last point is an important one. When not implemented appropriately, social learning can have its drawbacks. Just as "with social media content, it just keeps coming with all of its alerts and beeps and constant notifications," notes Tom Kuhlman. As with anything in the world, too much of a good thing can turn bad. And even learning systems that don't overwhelm learners with notifications can run into issues with implementation. Fiona Quigley, head of learning innovation at LogicEarth, discusses the culture shifts that need to happen for social learning to really take root in an organization:

23
77

77% of companies say that integration capabilities are either essential or critical for their learning technology vendors to have.

"

Learners, as consumers of information, will better engage with that information **made by their peers."**

To reap the real benefits of learning, organizations need to break down some specific barriers. Part of why we are not good at helping one another learn and grow is primarily because of our organizational culture and structure.

Some specific barriers to social learning:

- *Making it compulsory*—We can't force people to learn.
- *Monitoring usage*—Rarely does monitoring encourage an open learning culture.
- *Being impatient with adoption*—Take time to allow it to happen.
- *Going against the natural way that people learn*—Ask your staff where communicating with other staff and teams might help them in their role, and use the tool to facilitate this.

If democratized and social learning require these kinds of organizational and cultural shifts, are they truly worth pursuing? The lesson here is to give learners more context around their learning. Social learning and democratized content provide extra layers of content, but they're easily digestible because the information originates from peers.

More easily understood information means better learning. As social and peer-to-peer continues to prove its effectiveness in learning, we will continue to see it grow in adoption in the coming years.
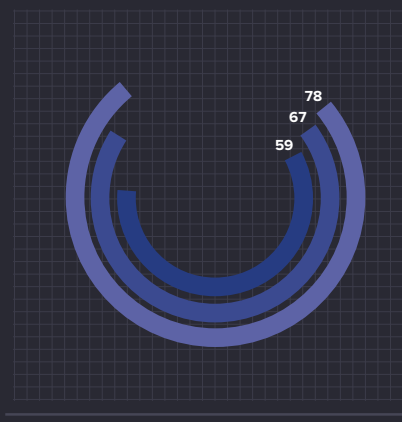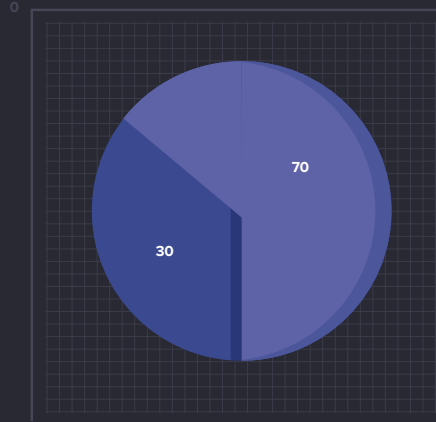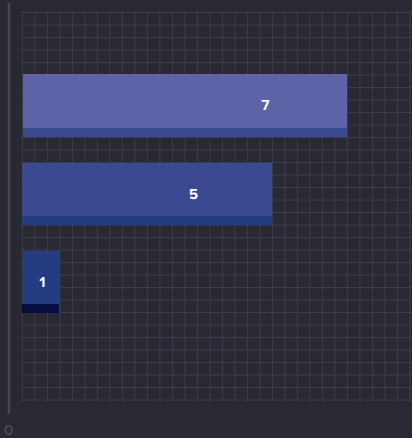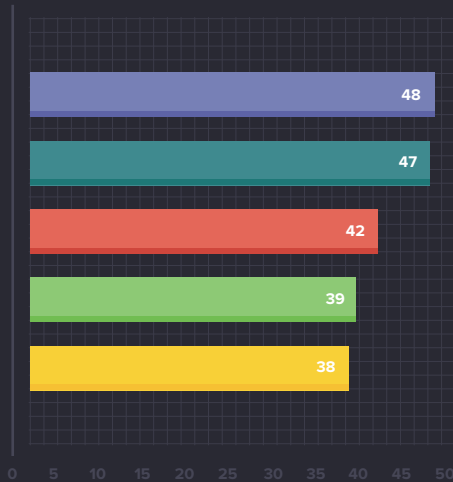
TREND #4

Moving beyond learning management

- ▮ *Exploring new/different learning technologies*
- ▮ *Developing/revising the learning strategy*
- ▮ *Creating stronger link between learning and individual/organization performance*
- ▮ *Exploring new/different learning modalities*
- ▮ *Improving our measurement of learning*

According to the Brandon Hall Research Group, top companies are extremely interested by the coming changes to the LMS industry. When asked about their top L&D priority, these were the companies' responses.

MOVING BEYOND LEARNING MANAGEMENT

Advancements in technology continue to expand the possibilities for flexible, adaptable learning management systems, but in the face of such rapid change, what should a modern LMS look like? Moreover, is learning management even an accurate descriptor any more?

In reviewing the writing of selected learning thought leaders, coverage of the keywords LMS and learning management system was sparse, garnering only twenty-one posts in 2016. However, content centered around "better learning" and "better learning design" comprised nearly half of these experts' writing this year. While the ideas explored in these articles vary widely from author to author, the common thread of 'better learning' persists across them, suggesting that the old standard of learning management simply doesn't meet trainers' and learners' expectations and needs.

For example, health information scientists Maged Boulos, Dean Giustini, and Steve Wheeler, in an article for online journal Future Internet, discuss the potential application of Instagram and WhatsApp (two Facebook subsidiaries) within health care learning:

Digital forms of scaffolding emerge where learners access new knowledge using personal devices. The power differentials between experts and novices is also thought to be diminishing due to new and emerging forms of peer learning and knowledge production. This paragogical theory is based on the premise that online networks are sufficiently developed to support user-generated content that can be shared freely and widely to inform communities of practice and interest. (Paragogy in this context refers to the conscious practice of peer learning.)

And Tom Kuhlman, Chief Learning Architect at Articulate, notes the unparalleled value of social media as a content-delivery vehicle for people across the world:

Another way to stay on top of the good content is to track topics via hashtag. Instead of following a person, or everyone in an industry (which can be overwhelming), follow topic-specific hashtags like #elearning or #training. You will stay on top of all posts relevant to that topic.

What does this level of global information access look like for an LMS? Will the industry soon

> **The common thread of 'better learning' suggests that the old standard of learning management simply doesn't meet trainers' and learners' expectations and needs."**

request that learners scour hashtags on Twitter as part of their learning? It's not far off from the emergence of what we can categorize as the next-generation LMS. To be truly next-gen, learning management systems should offer new levels of contextuality with automation features like the aforementioned hashtag tracking.

Another theme that recurs across much of these thought leaders' writing in 2016 is learners' increasing expectations for information personalization. Learning researcher Will Thalheimer discusses this topic with a heavy dose of learning science thrown in on his blog:

We've known for millennium [sic] that personalized learning is good—and we've even dabbled in scalable implementations like programmed learning—but for the most part, we are still awaiting the promise of such personalization. Now may be the time. New technologies are beginning to show promise. For example, subscription-learning threads based on personalized spacing schedules personalize learning nuggets based on learner responses.

Such potential personalization comes within the context of new intelligent tutoring systems created to direct learners toward information they didn't already know. More and more innovative technologies like these continue to present themselves and stress the age of older learning management systems. In order to stay competitive with next-gen systems, stagnant LMS will need to adapt to offer features that embrace the connected world we live in. The direction of this trend shows that we should expect even more changes in the near future.

WRAP UP: *Back to the Future*

If 2016 showed the learning industry anything, it's that there are big things on the horizon. By this time next year, our mobile devices could provide the base for augmented, virtual, social, and gamified learning experiences, powered and connected by learning systems that track and quantify every aspect of our information consumption. Given the trends that led us into this year, this future scenario isn't too far off.

Imagine if companies embrace the opportunity to move beyond learning management into learning automation. A new world of contextual information provided by new technologies would increase the effectiveness of employees, teams, and entire organizations. Given enough time, this next generation of learning will become standard practice in learning software and the industry as a whole. Doing so would drastically reduce time spent training learners on redundant information, allowing teams to get back to their daily workflows faster.

Experience next generation team learning software built for the era of learning automation, today. Try Lessonly's 15-day, unlimited free trial for a glimpse of the future of learning. **Sign up today.**

APPENDIX

ENDNOTES

1. http://www.digi-capital.com/news/2016/03/arvr-investment-hits-1-1-billion-already-in-2016/#.WC9WjKIrKRv
2. https://www.idc.com/getdoc.jsp?containerId=prUS41676216
3. http://fortune.com/unicorns/
4. http://www.marketwatch.com/story/gamification-market-growing-at-463-cagr-to-2020-led-by-social-media-2016-02-16-5203147
5. http://go.brandonhall.com/l/8262/2016-04-25/5brswr

THOUGHT LEADERSHIP SOURCES

- Cammy Bean
- Elaine Biech
- Jane Bozarth
- Rory Cameron
- Janet Clarey
- Donald Clark
- Julie Dirksen
- Chris Geraci
- Matthew Guyan
- Jane Hart
- David Hopkins
- Harold Jarche

- Karl Kapp
- David Kelly
- Tom Kuhlmann
- John Leh
- Connie Malamed
- Elliot Masie
- Manish Mohan
- Cathy Moore
- Christopher Pappas
- Julie Patrick
- Fiona Quigly
- Clark Quinn

- Steve Rayson
- Brent Schlencker
- Clive Shepherd
- Amanda Smith
- Will Thalheimer
- Shannon Tipton
- Ryan Tracey
- Craig Weiss
- Steve Wheeler
- Bianca Woods