

Predictive learning

You might like to take a leaf out of Amazon's book and start recommending new learning content, says **Randy Emelo**

Pandora. Netflix. Amazon. These three companies all have something in common; they use predictive analytics to figure out what their customers might want next. With the use of powerful mathematical algorithms, they learn about their users' behaviours, downloads, purchase histories and more, and then generate intelligent customised recommendations based on these bits of data. For example, I recently listened to Jason Isbell on Pandora. Based on this, the software suggested that I might like Sturgill Simpson, an artist I had not heard of before, but that I did, indeed, like. Or if you watch *Downton Abbey* on Netflix, the algorithm will take that viewing history into consideration and recommend similar shows that you may enjoy. And anyone who has ever bought something from Amazon has seen their suggestions for related items that you might want to purchase.

All of this encapsulates the new consumer world we live in. The more we listen, watch or buy, the more these companies learn about us and can fine-tune their algorithms to more closely meet an unvoiced need before we ourselves may even realise we have it.

Now imagine this in action in your organisation as the new way people access your learning and training resources. Can you imagine the power of being able to predict the course or learning resource someone will need in order to complete their project and suggesting it to them proactively? Or being able to direct someone to a learning group before they even realise they need to bounce ideas off other people? People would no longer have to search for the right resource and hope to find it in the myriad options you have available. Instead, people would engage in discovery-based

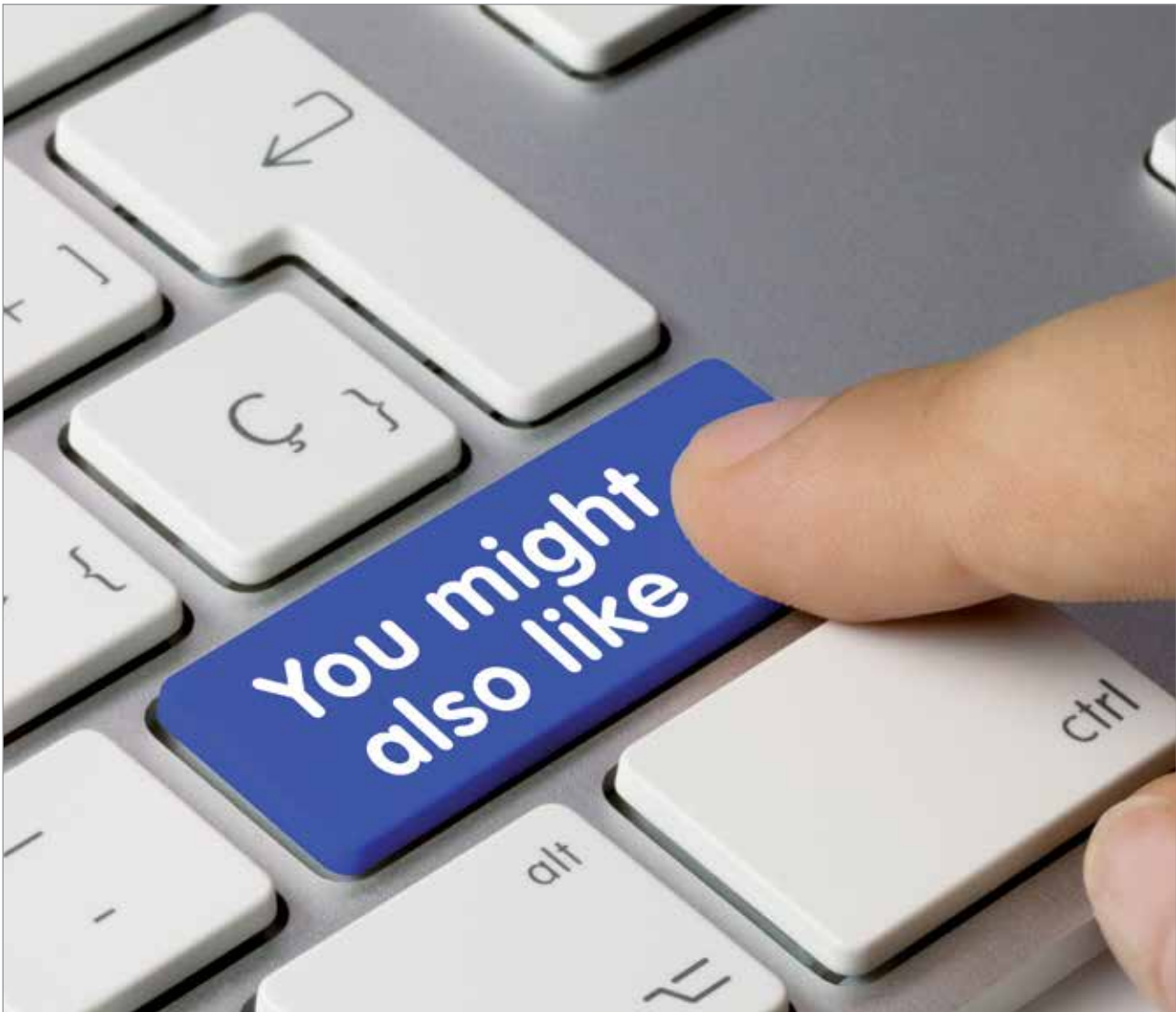
learning where personalised learning options come to them, rather than forcing individuals to seek them out.

Seth Godin wrote about the difference between search and discovery in his blog in April 2014, stating: "Search is what we call the action of knowing what you want and questing until you ultimately find it. Discovery, on the other hand, is what happens when the universe (or an organisation, or a friend) helps you encounter something you didn't even know you were looking for."¹ It is harnessing the power of discovery that organisations should ultimately strive for.

David Wentworth, senior analyst at research and advisory firm Brandon Hall Group, sees this trend impacting corporate learning: "Learners respond much more to material that is contextual and relevant to them. No one wants to wade through an endless array of content that may or may not be helpful to them." By helping to narrow the search through smart recommendations based on profiles, past actions, desired outcomes and the like, companies can provide more relevant learning opportunities to employees that feel personal and meaningful to the individuals.

Employees are ultimately our customers, and they expect their learning activities to feel much like their consumer activities. They want learning to look slick, work well, be intuitive and centre on their needs. To make this happen, we have to think differently about what we offer our employees for their corporate learning opportunities. It is no longer feasible to limit who can see, access and use content, courses and assets; these resources have to be open and accessible to everyone. In fact, we should want them to be accessed by as many people as possible within our organisations to help expose the masses to positive learning experiences. When we open up our libraries and human capital knowledge in





this way, we create an organisational culture that values and supports learning in a tangible and truly transformative manner. The caveat is that open access should not equate to information overload.

Wentworth notes that in research conducted by Brandon Hall Group: “We’ve found that higher performing organisations are 40 per cent more likely to offer learning opportunities based on personal strengths, weaknesses, job roles or other criteria. Companies are definitely experimenting more with this concept. There is a move to create more in-depth learner profiles that include more than just a name and a job role. These profiles include interests, hobbies, additional skills etc. These learner profiles can then be used in combination with robust content profiles to create connections and relationships that may

have always existed, but could never be optimised. This creates a relationship-centred learning environment where learners are connected to content, subject matter experts, instructors and to one another.”

This type of predictive learning based on user behaviours, profiles and other data points constitutes an enormous shift in how people glean information and insights from your learning systems within the course of doing their jobs. Yet it also presents an exciting opportunity to truly embrace a revolutionary way to bring social and relationship-based learning to your employees in a way that means something to them.

Case in point: Xerox

Technology innovations are nothing new to Xerox; it’s embedded in their corporate

DNA. As such, they are helping to pioneer recommendation-based learning as early adopters of this practice within their Xerox Services University (XSU). The Learning Services, Intellinex team at Xerox formed XSU to provide a way for their employees to develop the competencies, skills and learning relationships needed for individual and organisational success. They built a Commons area within XSU that uses social learning technology to support modern mentoring, collaboration, peer coaching and more. This Commons area is where recommendation-based learning opportunities exist.

“A key element of our project objectives was to support the competency framework that had been created for leadership development,” says Phil Antonelli, Learning Strategist and Xerox Services Social Learning Manager for Learning Services, Intellinex LLC, a Xerox Company. Antonelli and his colleague Kerry Hearn-Smith designed their social learning framework within the Commons so that people entering the site are presented with schools that guide them down a distinct development path. These recommendations help participants easily locate and engage in appropriate learning opportunities that use pre-formed social learning groups and corresponding curricula that people can leverage.

The XSU schools guide participants through a learning process that incorporates formal, social and experiential learning, and address their overall level of proficiency. Five schools currently exist within XSU:

- The School of Creativity and Innovation equips Xerox leaders with methods, processes, tools and techniques to think and work creatively and drive innovation, ultimately providing valuable products and services to their customers.
- The School of Operational Excellence provides Xerox leaders with principles, practices and tools necessary to achieve process excellence and build a culture of continuous improvement.
- The School of Leadership equips Xerox leaders with tools and resources to engage and develop teams, establish a shared vision, inspire and motivate others, and continuously improve team performance to achieve business goals.
- The School of People Management enables Xerox leaders to develop the interpersonal and organisational management skills necessary to motivate individuals and teams toward accomplishing strategic business goals.
- The School of Business Foundations equips Xerox leaders with the business acumen about financials and sound decision-making to drive Xerox’s sustained profitability and growth.

Each school centres on a unique focus and provides structure that employees need to advance their careers and build new skills. The courses and authoritative content contained in each school connects to the focus of that school, but since people can take part in multiple paths at once, cross-pollination of ideas, content, best practices, policies etc will occur.

“We are seeing some great results, with close to a 100 per cent conversion rate on click-through to the social or the formal learning pieces in the Commons,” says Antonelli. After the programme had been live for just two weeks, the Xerox team already saw that they had more than 1,000 people sign up for XSU, they had 615 course completions, and they had 323 courses in progress. Antonelli attributes some of this success to the recommended learning paths that people see as soon as they enter XSU. These recommendations help point people in the right direction so that they can get started immediately on developing their skills in a particular area.

The recommendations don’t stop there, though. As people use the system, input their competency strengths and identify areas for growth and of general interest, the social learning software generates additional personalised and targeted recommendations for individuals. These become the moments of discovery for participants, their a-ha moments as they encounter learning opportunities they didn’t even realise they wanted.

Brandon Hall Group’s report, *The State of Learning and Development 2014: Coming of Age*, by principal learning analyst David Grebow, indicates that “Organisations plan to focus most heavily on learning delivery that appeals to their millennial workforce.” This is in large part due to the fact that what millennials want from learning is good for everyone, not just a single generation. They want personalised, just-in-time learning methods, such as social learning and mentoring, and organisations have taken note. “The delivery methods most often cited for more use in the next 12 months were online learning modules (65.2 per cent of organisations), social collaboration and learning tools (50.6 per cent), online performance support (49.8 per cent), online videos (49.6 per cent), and coaching and mentoring (48.8 per cent).”²

While millennials may have been the focus of Grebow’s point, the fact remains that all our learners could benefit from personalised, just-in-time learning opportunities and methods. This transcends generational differences and becomes more about how people want to learn and less about what generation they are from. Ultimately,

References

- 1 Seth Godin, “Search vs. Discovery,” April 5, 2014. <http://bit.ly/11C8vLV>
- 2 Ibid



learners of all ages want suggestions on who to collaborate with, what learning groups to join, what courses to take, what training materials to use and so on. Employees want (and need!) help understanding what they should be learning and where they can find the resources they need. People want learning software to be more like the consumer products they use every day, like Pandora or Netflix. They want to be shown: *Because you're interested in learning about X, you might also be interested in learning about Y.* Or maybe: *Other people who were interested in X were also interested in Y.*

Why should our corporate learning experiences be any different than our consumer experiences? Aren't our learners our consumers? As learning and training leaders, we have to start looking at our L&D activities and technologies in this way. To get there, we need to think of creating learning that mirrors an Amazon.com-like experience for learning: personalised, timely and intelligent – something that takes the guesswork out of learning and cuts through the noise and clutter of our 'shopping' experience.

Xerox understands this and is making it happen. The Xerox Services team embodies the innovation that runs through the entire Xerox corporation. They help make XSU stand out by giving employees the ability to take part in learning activities across the 70:20:10 learning continuum in a unified and organised fashion. Employees may not realise they have access to something groundbreaking because all they see is that their knowledge needs are being met when required and in ways that make sense. That is the epitome of good learning – when it doesn't feel like learning. By giving people a seamless learning experience, by giving them ways to put learning into action to address performance and by aligning their learning environment with business strategies, the Xerox Services team has differentiated themselves and XSU from standard corporate training and learning initiatives.

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Making it work for you

To create a more consumer-driven mindset for your learning initiatives and to make recommendation-based learning work for you, consider these tips:

Get them started. Give people targeted content or courses to access as soon as they enter your learning site. You can do this by curating your learning resources by topic or an associated competency so that it is relevant to each individual. This takes some of the burden off learners so that they can

spend more time in learning activities and less time in searching for a learning resource.

Go beyond keywords. Recommendations should not be based on keywords alone or profile data only. You need smarter systems that take into consideration other pieces of data such as competencies, interests, skills, past activities etc. "The biggest thing holding companies back from this type of learning environment is the amount and type of data necessary to make it work," says Wentworth of Brandon Hall Group. "The learning function already struggles to analyse and leverage the basic data they collect today, such as course completions, smile sheets etc. Now we are asking them to mine some deeper data and apply some more complex analysis." With a smart learning system, the analysis and recommendations can take place through algorithms built into the system, rather than through hands-on work of learning leaders.

Fill the void. To achieve success, Antonelli from Xerox says companies should "identify a social learning manager to manage communication and drive adoption". Few companies employ someone in this position, but the shift towards social learning may necessitate that they create such a role. A social learning manager or director will need to take a consultative approach to identifying how the social learning process can be leveraged. This person should help others develop plans for rollout and expansion of the technology, and should help consult different programmes around how they can best use the process or communicate value to their constituencies.

Give up control. XSU incorporates authoritative content into the Commons and the five schools. This allows people to find relevant content from trusted sources. However, Antonelli urges learning leaders to go a step further. "Let go of your desire to control every bit of the process, and move from structured design to emancipated design where the learners are the subject matter experts and own the learning as they create the content." This will help build a robust resource centre from which recommendations can flow from practitioners who are on the front lines and who can share practical insights and materials."

"Information is the fuel that makes these systems work," says Wentworth. I couldn't agree more. Once we get better at harnessing and codifying the data into intelligent recommendations for our learners, we will reach new heights in learning and development. **TJ**