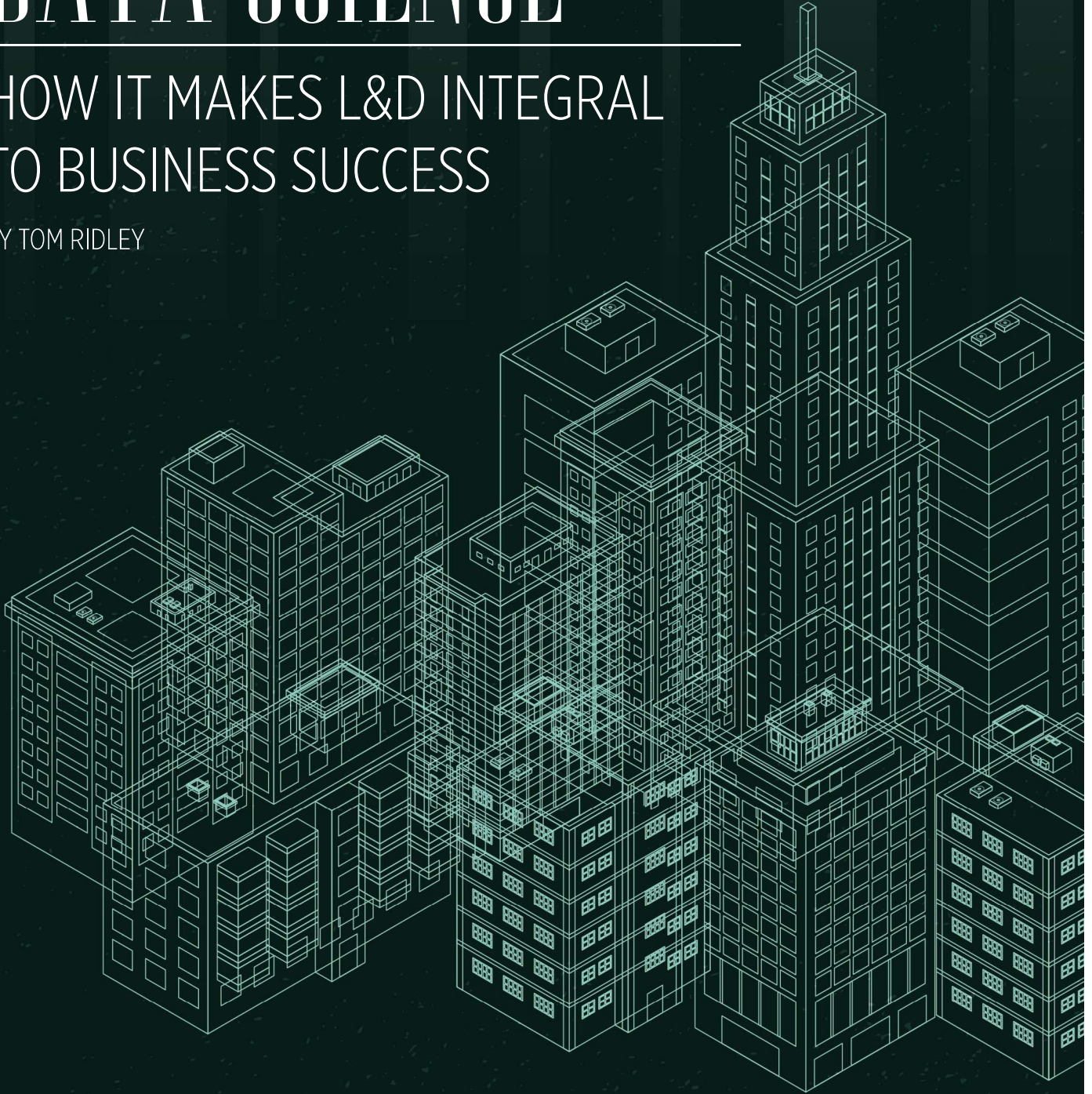


# DATA SCIENCE

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HOW IT MAKES L&D INTEGRAL  
TO BUSINESS SUCCESS

BY TOM RIDLEY





When this article was conceived, we were living in a world where businesses operated as they chose, we visited friends and family frequently and publicly, and our reliance upon the digital world was largely governed by how far we wished to integrate. Amid the global pandemic, the need for greater understanding is more important than ever. To survive, the decisions businesses make must be rooted in a healthy degree of logic.

In 2006, Clive Humby, a UK mathematician, coined the phrase, “Data is the new oil.” 2006 seems a long time ago. Smartphones as we know it didn’t exist, social media was in its infancy and YouTube was celebrating its first birthday. Even in an age where data was much less available, it was still seen as a game-changer. Then a 2018 Towards

Maturity report revealed, “51% [of training professionals] say they cannot use data effectively due to lacking in-house data skills.”

How can there be a severe lack of development in an area that permeates all walks of life? The use of technology, particularly those driven by data, has increased exponentially to the point that it is almost impossible to escape the collection of and interaction with data.

Shopping is a great example. Google and Amazon track your browsing history – on-site and across the web. They link with social media, even examining our friends and family, and then push targeted products and services. These companies have not ignored the “data wave.” Rather, they are riding the crest and seeing massive growth.

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However, data in learning has predominately been about completion rates, time in content, hours delivered and test scores. This data, while useful, isn't the full picture. Furthermore, it's not the type of information that excites stakeholders or can be used to make strategic decisions. This data ensures learning and development (L&D) stays useful but not integral to business success.

L&D must model the best practices of other departments and industries to ensure their value is seen. To have 51% of L&D functions' ineffectively leveraging data is unsustainable, especially as COVID-19 places unprecedented challenges upon businesses. L&D does have the ability to drive change, galvanize a workforce and deliver business results. The question is how can L&D better connect to meaningful data and how can they use it to articulate their value?

## BEYOND COMPLETION RATES

L&D must stop seeing data as something only they create themselves. Vast quantities of data exist outside of learning. Human resources (HR) systems, email, chat functions, social events, technology platforms and even shared personal data can be used to broaden our understanding of our audience. These may be familiar to many, but we often use them in a simplistic way, as part of a gap analysis or post-training key performance indicators. For example, employees are not using a piece of technology correctly, training is implemented and the same metric can be used to see if things have improved. But what is the value to the business here? Is it sustainable or tailored to the learner? This is where data science comes in.

In the example above, we are only looking at two data points: use of a piece of technology and completion of training. What about other factors such as time in role, geographical location, learning style, past training and historical engagement with information technology (IT) support? All these data

points inform your understanding of learners. To continue, let's say we are tracking 100 different data points concerning performance with this piece of technology. Why so many?

- A greater number of data points provides detail on what impacts learning and what combination of factors is best for success.
- Additional data points are useful to other business units when trying to make decisions that impact the organization.
- More data directly ties L&D to other business functions.

It is naive to believe that we can create a training program for the learner to consume and that it alone will move the needle. Access to learning outside of L&D is greater than ever, and ignoring this external influence reduces our credibility.

Let's assume that there is a simpler version of the software available. If you track that those with access to the simpler software first have a greater speed to competency when introduced to the full software, you could build this into the instructional design of the program. Maybe you notice that younger team members pick up the technology quicker, or that workers in one location are using a frequently-asked question (FAQ) guide and are having fewer issues. These data points all add the value. It is not simply about the creation of content. L&D can evidence the way people are learning and harness that to build better programs and achieve greater return on investment (ROI).

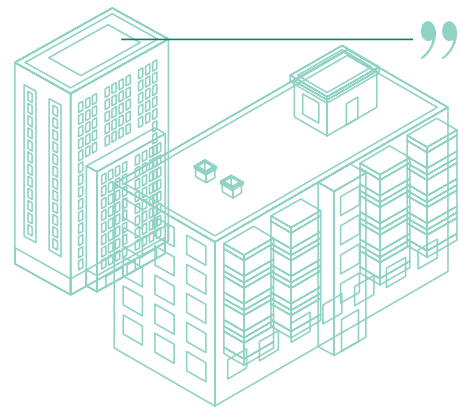
L&D is often siloed away from the organization and, despite its best attempts to partner, is often held at arm's length. However, this does not have to be the case. Continuing with the previous example, let's see how additional data can benefit other business functions while building L&D's value.

**"Simple" version of the software.** IT can make more informed decisions when

buying licenses for the product. They learn that simple versions of software will suffice for a while, and they do not need to purchase the full version from day one, resulting in instant cost saving. The department may also experience quicker installation and configuration times. IT can also secure budget for a software that is being well used while making L&D integral to building the business case.

**Younger team members.** If a younger audience can get to grips with the tool faster, they may not need the same quantity of training. Reducing time can increase speed to competency and gets employees back to the business.

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**FAQ usage.** This piece of data could wield so many possibilities. This is evidence of collaboration aiding in the learning process, as well as prompts further questions. Can you provide access to this document for other learners? Can you use FAQs as a way to communicate future changes in the



software? There are benefits across business functions, as well as broader strategies for collaboration.

## COMMON CHALLENGES IN LEARNING ANALYTICS

What is stopping learning from being better with data? Usually, learning leaders say, “We don’t have access to the data,” or “This is very complicated, and we don’t have the capability.” These may resonate and if so, all is not lost!

You may find it’s an issue of legality, as data and access to it have increasingly become a sticky subject. GDPR legislation and scandals with personal data have only fanned the flames. However, we are not talking about the abuse of data nor are we often looking at an individual’s data. When assisting business strategy, we look at trends in data collection. Anonymized data can be used extensively, and we can account for different laws across locations. A proper discussion about data’s use and

its benefit to the business usually results in a positive outcome.


Second, more and more platforms are making it possible to share data with other platforms, even if not created by the same company. HR systems can talk to a customer relationship management (CRM) system. That CRM can then talk to a survey tool that talks to an e-commerce platform. The data is there; it just needs to be directed to the right place.

Although it may look complex, the use of dedicated data visualization tools can make light work of sourcing and processing data. These tools are designed to collect vast quantities of data and allow you to sort it in a way that makes sense. They simplify the complex and present information in an engaging form.

It is also likely that you have an in-house data capability. Utilize them; data scientists love a new data source. Vendors are also building their own data teams now and offering this

service to their customers. Remember, senior management will be looking at business functions that present data in this way. L&D does not want to be behind the curve.

## SUMMARY

Data is the new oil, and L&D is perfectly positioned to harness this data in meaningful ways. It does not need to be complex – only thoughtful. L&D can be the arbiter of change and success for the business but also the mechanism by which the capabilities of an organization can be assessed. Learning has a unique opportunity to understand the needs of the business, implement a solution, track the routes to success and help the business make strategic decisions. All based upon evidence provided by data. 

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