

**Learning Uncut Episode 57**  
**Henrik Harder & Nick Howe – Personalised learning meets diverse needs**  
**Hosted by Michelle Ockers**



**Michelle Ockers:**

The Learning and Development field is full of buzzwords and jargon. Often, we lack a common understanding of what these terms mean. Take the term 'personalised learning' for example. One of our previous Learning Uncut guests, JD Dillon, had a very good article published in the June 2020 edition of Training & Development magazine titled 'More than Netflix: The Real Potential of Personalised Learning.' Like JD, I've been concerned for some time that the Netflix metaphor significantly underplays the potential value of personalised learning. JD's article identifies data as a common element in personalisation tactics. One player in the personalised learning space that I've had my eye on for several years is Area9 Lyceum. Since founding in 2006 they've been refining their use of data to meet the needs of individuals in the moment as they undertake online learning.

In this episode Nick Howe, the Area9 Chief Learning Officer, is joined by Henrik Harder who was the CEO of the Danish roadwork education centre VEJ-EU in late 2018 when the project we discuss was undertaken. They describe shifting a full day of face to face theory training with a very diverse audience to an adaptive, personalised online platform. Nick talks us through how the system calculates what the learner already knows and where to take them next to ensure that they know everything needed and get through the content in the shortest possible time to achieve this with confidence. Henrik discusses the experience for both the 2,000 learners per year and the instructors – who use data from the online component to shape how they manage the remaining day of practical face to face activity.

One outcome was that the time to complete the knowledge component of the course reduced from 8 hours to a median of less than 3 without removing any content and allowing even the slowest of learners to achieve proficiency.

Clearly Henrik was delighted with the outcome of this project. So much so that I feel obliged to make it clear that I have no commercial relationship with Area 9. This is simply a story that's worth sharing with Learning Uncut listeners.

**Michelle Ockers:**

Welcome today to Learning Uncut, Henrik.

**Henrik Harder:**

Yeah, thank you very much.

**Michelle Ockers:**

And welcome also, Nick. We've got Henrik from Denmark, and Nick, you're in the US, I believe?

**Nick Howe:**

I am, Michelle. Good evening to you, it's early in the morning here in South Florida.

**Michelle Ockers:**

We're going to start the conversation with you, Henrik, to give us some background to the story before we introduce Nick, and the role he played and his organization played in today's story. So let's start hearing about your company, the company you were with at the time as

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CEO. I'm going to have a go at pronouncing it, you can correct me if I mispronounce this name: VEJ-EU, is that right?

**Henrik Harder:**

Yeah, VEJ-EU. That's right.

**Henrik Harder:**

VEJ-EU is a national Danish non-profit centre for education of people working on the roads in Denmark. Participants at the courses at VEJ-EU could learn, will learn how to build roundabouts, pedestrian crossings, bike cycling lanes, and where to place signs at roads. And of course, they also have a lot of courses in working safely and how to secure traffic when they are working on the roads. So that's the main purpose of VEJ-EU.

**Michelle Ockers:**

So it's a not-profit, so it's owned by a range of industry bodies, or how does the ownership work?

**Henrik Harder:**

Yeah, it's the sector who owns the road sector in Denmark, who owns the company. So it's a public/private partnership, and it's non-profit.

**Michelle Ockers:**

Right, and today we're going to focus on a certification program about guarding roadwork areas and safety regulations. Can you tell us about the nature of the work that the program relates to and the type of people who need to be certified to do the work?

**Henrik Harder:**

Yeah, in Denmark we have a lot of roads. Not compared to other countries like your countries, but we have a lot of roads, and some of the roads are owned by the Danish government. And here, it's needed to have a safety ... Or several safety certificates in order to work on these roads.

**Henrik Harder:**

We have actually certificates in three levels, and a lot of Danish municipalities also demand or require the personnel working on the roads to have certificates. So more than 2,000 participants every year have to have these kind of safety certificates on courses, the courses we are talking about today.

**Henrik Harder:**

I just want to tell you that the workers on the roads in Denmark are required to demonstrate a knowledge of safety regulations and have to use best practice guidelines for ways to guard roadwork areas so they can prevent injuries and death. And in this scheme, we include people who plan the work and people who work on the roads. So it's both engineers and workers who have to take the courses. They are mandatory. We have, as I told you, three types of courses: The first one is a basis, so everybody have to have this course, and then we have two other courses for more complex works at roads. But we're talking today about two of the courses where we use the Area9 solution and we used it with a very high level of success.

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So can you tell us a little about how these two courses were designed, how they were being run before Area9 was engaged to do the work with you?

#### Henrik Harder:

First, I could tell that it was user needs, so it was the sector who actually wanted us to do something, to make a redesign of the courses. So it was user need-driven development. The courses were level one and level two, were two-day courses, and there was a wish of reducing the courses to one day, and to bring in an EdTech and do some blended learning. But still, it was very important for the road sector that the solution, the new solution should fulfil our safety, Danish national safety standards.

#### Henrik Harder:

So in that sense, we had a tight place to work on. Then, we had about 30 supervisors, or teachers, or instructors who had to work with the solution afterwards, and of course, everyone had to be satisfied, also the instructors. Normally, you can say the road, as a workplace, level one and two are two-day classroom-based courses, traditional one day with PowerPoints, and the other day is more gamification. We work on the road and look on how to place signs and make solutions which improve the level of safety for the workers on the road, and for the cars, and other pedestrians, and others around the workplace.

#### Henrik Harder:

And here, engineers, qualified engineers and workers with little education have to work together on the same courses. And engineers were very bored of studying the material they already knew, and the workers were struggling to understand the material in order to keep up with the pace of the instruction.

#### Henrik Harder:

Yeah, there was also the cost: "Could you reduce the actual stay at the course from two days to one day?" The companies involved could save some money. But there was also some complaints about the level of the courses. Some told us it was too high entrance level, primary workers and with no educational background at all, and then there was the engineers who said, "Ah, what should we do in these two days? We know a lot about what is going on, and could we just get one day?" So there was a need to redesign the courses, and there was a need for a new solution, and to introduce an EdTech component.

#### Michelle Ockers:

Okay, so obviously you're a training organization, so I'm assuming you have instructional design staff who work in the organization. How much work had you already done, how advanced was the design when you engaged Area9? What did you already have in mind for the design?

#### Henrik Harder:

Oh, we wanted to lift this program up to another level. We already had EdTech solutions and online supervision, but this time we wanted to do something special, and we actually made a tender, but we only found two qualified companies in Denmark who were able to lift these courses up to the level which we wanted it to be lifted to.

#### Michelle Ockers:

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And what were you looking for, what were the key criteria you used to select a provider to work with you on this course redesign?

**Henrik Harder:**

Yes, we were still looking for the price, the cost of overall-

**Michelle Ockers:**

Of course.

**Henrik Harder:**

But as I told you before, it was very important for us that the way we could do the new courses was more appealing to all the participants at the courses, both the engineers and the workers. So that was actually the main criteria in the tender.

**Henrik Harder:**

Yeah, and then of course, afterwards, when we had bought the solution, it should be easy to go in and change different parts of the courses, because even though signs and roads is a very conservative sector, things change, and every year we actually have changes in our teaching materials. So it should be easy and cheap to change the material afterwards, and many of these things are stated in laws. So we have to be very accurate, and the system should support these types of requirements also.

**Michelle Ockers:**

Could one of you outline the new program design just at a high level? Because I believe it consists of a number of steps now, not just all face-to-face training. So whichever you would like to give us an introduction to the new solution.

**Henrik Harder:**

Nick, would you take over?

**Nick Howe:**

Sure, absolutely. As Henrik's laid out, the fundamental content of the program didn't change. It had been tested. It was well designed, well laid out. The challenge is much more about how it was being delivered, and as Henrik pointed out, it's relatively rare that you have so many different requirements stacked on top of each other. So we had two very different audiences with two very different needs. We had an industry oversight that needed to be satisfied. We had government laws that needed to be satisfied, and being a non-profit, there was a pricing issue that needed to be satisfied as well, and then the maintainability.

**Nick Howe:**

So it was a very complex scenario, and what we ended up with was something remarkably simple that had profound implications for the participants. So as with many blended programs, it was the basic process was what are the things that are most appropriate to be taught in the classroom? And as Henrik laid out, the program had already been structured pretty much as a theory and practice. So the theory was moved out into an online program, and specifically this idea of adaptive or personalized online, which I think we'll get into in a few minutes, and then using that as the foundation, what had been the two-day program was reduced down to one day.

**Nick Howe:**

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So we still kept the practical, hands-on component we needed people to demonstrate, but we pulled out all that theory that had been the major source of the boredom for some of those more advanced engineers. And there's one other component that we haven't talked about as well, which is there is an exam associated with this as well. Ultimately, the certificate is driven by an exam, and so although it was only two days, it was this nice kind of rich environment that I think has good lessons learned for almost any program out there, with a theory component, and a practical component, and then the high-stakes exam at the end of it.

#### **Michelle Ockers:**

Okay, and the classroom day that remained, which is the activity-based day, was that changed in any way or was it more the theory component and delivery of it that was changed?

#### **Nick Howe:**

The basics were the same, and Henrik said earlier about the instructors. And one thing that he didn't say was that these are not full-time instructors the way we'd normally think of them. These are professionals, and Henrik can speak more about this, but police for example are brought in because the subjects that are being taught are about road law and various other things. So they're using professional subject matter experts. So getting those folks on board with this change was very important, but the actual ...

#### **Nick Howe:**

Certainly my understanding, and Henrik can explain this further, is the core practical component didn't change, with one exception, and that is that the online component generates quite a lot of data about the learners, and we haven't really explored this idea of adaptive learning and why it might be so data rich. But just to pre-empt that a little bit, the online approach does generate a lot of data about the learners themselves which the instructors can then use.

#### **Nick Howe:**

Because the practical component is teamwork, one of the decisions they have to make is, "How do we split people up? Do we put the engineers with the engineers? Do we put the road workers with the road workers? Do we try and blend them into different teams," and I think there were implications, some positive implications for how people were grouped to work together based on how well they performed or where they'd struggled during that online component?

#### **Michelle Ockers:**

Okay, so let's backtrack then and talk about the online component, and then perhaps from that discussion we'll see what sort of data it generates and how that can be used to improve the face-to-face component. So the terms "adaptive learning" and "personalized learning" are thrown around a lot in learning and development conversations at the moment, but people have all sorts of different explanations for what they mean. Area9 Lyceum works with adaptive learning to personalize the experience. What does this mean from an Area9 perspective? How do you view adaptive and personalized learning?

#### **Nick Howe:**

Our definition is it dates almost 30 years ago. As humans, we have massively different needs when it comes to learning. And as I said, there are 30 years of research around this.

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We tend to treat groups of learners as all the same: "I've got 100 salespeople or 100 road workers, we're going to put them through this course." What we fail to take into account is that all of those people have massively varying needs, and this particular use case highlights that in a way that you don't typically see.

#### **Nick Howe:**

Often, you get a group of managers in a room and you kind of think they're all the same because they're all doing the same job. Here, it's very clear that we have engineers and we have road workers, and to be clear, road workers, we're talking about people who might not even have graduated high school. These are the guys, often guys, on the street who have a spade or a shovel and are laying asphalt in the roads. And so it's very obvious that they have different educational backgrounds, different work experiences, different life experiences.

#### **Nick Howe:**

Unfortunately, in this situation, maybe different IQs, even different reading levels. And so it's very obvious in that scenario that they have different needs, but in reality, that same story can be told for every audience in every scenario. Just because I've got a group of 10 salespeople, they've all got different experiences, they've got different levels of success.

#### **Nick Howe:**

So adaptive in our world is about adjusting to meet the needs of the individual in the moment, and the best analogy is that of a personal tutor.

#### **Nick Howe:**

A tutor is going to use questions or problems to figure out not only where are you now, therefore how do I need to help you, but during the learning process, use those questions to figure out are you actually understanding the thing that I'm trying to teach you, and can we keep moving forward or do we need to maybe step back and cover something again? So we've spent 20 years looking at the underlying science of that process and saying, "Can we embed that in technology so that 100 people, 1,000 people, 100,000 people could benefit from that personalized instruction but without having the overhead cost of having a human tutor in the loop doing that?"

#### **Michelle Ockers:**

And of course, human tutors, the quality of them and their ability to adapt the learning is going to vary as well, right?

#### **Nick Howe:**

It is, and I wouldn't claim that what we do is a panacea or is magic, but certainly the algorithms that we've developed over a couple of decades have proven themselves. We've now had something like 25 million learners go through, using these approaches, everything from 10-year-old kids studying math to 70-year-old doctors who are re-doing their board certification, and everything in between. And the ability to get that consistent outcome, regardless of the subject, that's one of the other big things, we like to believe that we've solved this problem better than anybody else, personalization is used in a lot of ways, particularly in language training.

#### **Nick Howe:**

If anybody's used a tool like Duolingo to learn a new language, you'll know that there isn't a particular curriculum you go through. Everything is changing in the moment based on how



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well you do. What we've attempted to do is be able to create similar experiences regardless of the underlying content. So it doesn't matter whether I'm teaching math, or I'm teaching road safety, or I'm teaching advanced medicine, those underlying algorithms can still help learners achieve learning in ways that they might not have been able to do using other approaches, unless they had a personal tutor.

#### Michelle Ockers:

I think Area9 probably has some things up on your website already about some of the underlying science and the evidence base that you use. So, for those who are interested in that, we'll make that available in the show notes. Can you perhaps describe the learner experience using some examples from the VEJ-EU program, and where appropriate, just linking it to some of the scientific or evidence-based underpinnings as to what creates that learner experience? Are you able to walk us through that, Nick?

#### Nick Howe:

Yeah, absolutely, and often this sounds much more complex than it is, we talk about AI, and algorithms and all those things, but one of the things we've tried to do, and this is, if I use the classic example of this, we've tried to hide all of that. And just by analogy, Google Maps is one of the most advanced pieces of technology on the planet. They have massive data centres powering the ability to calculate, in real time, what you should be doing, collecting traffic data from millions of users. But you don't care about any of that, all you have is a simple user interface that says, "Turn left here."

#### Nick Howe:

And so that similar type of simplicity is what we've attempted to bring to the learning process. So under the skin, there's all this complexity, but from a training perspective, the content is essentially still the same. So in Henrik's world, as he described, they already had about a day's worth of content that was delivered in the classroom that was largely knowledge based. And so we worked with VEJ-EU to take those PowerPoints, to take that content, and to repurpose it, to re-author it in our online authoring tool. So it's very similar to any other authoring tool, and one of the beauties of this is it still gets built out linearly. So we use three main components.

#### Nick Howe:

So first of all, the learning objectives. So we are very focused on the outcomes, and one of the crimes I think that gets committed in the learning space is a very content-centric way of building courseware. You know, "I've got all this content, let's just put it in a PowerPoint wrapper and call that online learning." We start from the opposite direction: Our starting point is, "What do people need to be proficient in?" And in this case, it's very clear, because we're building up to an exam, and we've got a certificate that people need to achieve, so we've got a well-defined set of outcomes.

#### Nick Howe:

We then break that down into quite granular learning objectives, so that may well be, "What does this road sign mean?" or, "What would you do in this situation?" So there could be a little case or it could be a simple knowledge item. So some combination of, "What do people need to know or do?" So we've got a tree of learning objectives, we align that to the content, so in other words, if you want someone to do this, how would you teach them to do that? And then the crucial third component is an assessment item: How would you know if someone could do that?

#### Nick Howe:



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And so we have this little triumvirate, this little triad of the learning objective, a granular learning nugget, think of it as a micro learning nugget that teaches that, and then a micro assessment that confirms whether someone has done that. And then we hand that over to the algorithm. So instead of simply delivering that content sequentially, one after another, in the same way that a tutor has the freedom to move backwards and forwards through the content with a mixture of content and questions, the algorithm does that. Now, from a learner's perspective, it seems very familiar, it seems very linear.

#### **Nick Howe:**

But in the background, with every decision they make, with every answer they give, the system is calculating, "Of all the information that I've got available to me, of all the questions, of all the learning objectives, of all the content, where should I go next?" And what we're trying to do is figure out, "What do you already know? What misconceptions do you hold? What gaps do you have in your knowledge, and how do we best solve for that so we can get you out of here as quickly as possible but make sure you understand everything we want you to know?"

#### **Nick Howe:**

And a big part of that, and just to bring that back to the learning science, there are several parts of this: So one is about self-awareness. So typically, at the end of an e-learning course, you're maybe going to ask a handful of questions to see if people learn something. We add to that by asking people to self-rate their confidence in their responses, and that does a couple of things: One, it causes that self-reflection, which is huge for learning, just pausing for a moment and saying, "Do I really understand this thing that I'm looking at or am I really sure about my response?" has huge implications for the way that the processing happens in the brain and the connections that get made.

#### **Nick Howe:**

And it also gives the adaptive engine a piece of information about you, because if you answer a question incorrectly, there's a big difference between whether you were just guessing the answer or whether you really thought you knew the answer, and we need to respond differently to those two scenarios. And another one is we put a lot of store, there's a great book by Richard Mayer called Multimedia Design Principles. And we've all seen those online courses where the designer's just gone crazy, and there's cartoons and animations all over the place that don't really add ...

#### **Nick Howe:**

They look fantastic, but they might actually make the learning worse. There's cognitive overload, they're distracting from the key point you're trying to make, and so a big part of what we do is, in the authoring tool, taking away a lot of the complexity our starting point is we're doing this training to help learners become more capable.

#### **Nick Howe:**

So shouldn't the focus of everything we do be on that first and foremost? And there's all kinds of other science we can go into about deliberate practice, and spaced repetition, and reinforcement, and various aspects of multimedia design. And so what we've tried to do is take all of that, and to the extent possible, hide it away so the developer doesn't have to worry about that, but the learner gets the benefit of it in real time.

#### **Michelle Ockers:**

So it sounds like it would be a very clean experience for the learner, a relatively uncluttered, simple experience. Would that be accurate, Henrik? Is that what you have observed of the



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learner experience, or is there something else you'd like to share about the learner experience with using the programs that were developed?

#### Henrik Harder:

Yeah, prior to the new online adaptive solution, we were concerned that around 20% of the students would struggle with the online component or would not have access to the necessary technology. In reality, only 2 or 3% of the participant had issues, and it was often simple logon problems.

#### Henrik Harder:

So the package, all the PowerPoints we used the first day which were put into the Area9 solution was actually very well received by our participants. We had no complaints, and were there problems, the participants in the course were able to react immediately while they were running the program, which also secured that there was no failures when we actually had a lift-off. So all the goals of the program were actually achieved, and then we now respect the diverse needs of the audience - that was very important for us.

#### Nick Howe:

Yeah, and this, we kind of skimmed over something there: There was a full day of knowledge-based instruction, right? Eight hours, seven or eight hours which was converted to online. That's a lot of online content, right? We typically think 15 minutes, 30 minutes, here we're talking about eight hours of content. So there was a big chance that the experience online was going to be as bad, if not worse, than it had been in the classroom, right? It could still be highly boring and could still not meet the needs of the individual, and particularly with this diverse audience.

#### Nick Howe:

And I think it's useful to tell a little story, well, two quick side bars here: So one of the things we typically see with adaptive learning are significant differences in the time to proficiency. In a classroom, everybody's in there for eight hours for that first day, regardless how much they know or how bored they are. With the adaptive approach, because we're using these questions, we can avoid teaching people things they already know. And if you can demonstrate proficiency in something, we will move on. You don't need to look at this content if you already know how to do something.

#### Nick Howe:

And so that's one of the major sources of time saving, and particularly for some of the engineers, they were getting through what would've been an eight-hour content in as little as a couple of hours, right? So massive time saving. So you can imagine, from their perspective, they're loving it, right? They just get in, they answer things, they get out. Now, at the opposite extreme, so this is highly online, we're doing it on a computer or a laptop, lots of interactions.

#### Nick Howe:

So now, we're taking road workers who didn't graduate school and putting them through the same experience, and as Henrik said, there was a big concern, and I think quite rightly so from VEJ-EU, would this solution serve those workers as well as it serves those highly-educated engineers who spend half their life on a computer? I was told a story by Henrik's colleague Thomas, that a 75-year-old woman phoned VEJ-EU, and it turned out she was the mother of a road worker in his 50s. And she was concerned that her son had been given this task to do online, and she was concerned he was really going to struggle and fail and wasn't going to be able to do it.

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#### Nick Howe:

A couple of weeks later, the same woman phoned up pretty much in tears, saying that her son had passed the certificate, and it was the first exam he'd ever passed in his life. And we would directly attribute that to the fact that the system is infinitely patient, right? You talked about the tutor earlier. If you get something wrong, the system will do everything it can to help you master that, and if that takes you an hour or 10 hours, it doesn't care.

#### Nick Howe:

There's no pressure to complete something in the classroom and move on because everybody else is being slowed down. We also put effort in to make sure that it's the readability, is at the appropriate level. Another little tool built into the software is it automatically generates readability, so you know that you're not over egging the pudding, that you're not writing something that's overly complex to try and comprehend, particularly if you know something about your audience and their reading skill level.

#### Michelle Ockers:

So you said before that some of the engineers were getting through the theory component in around two hours. What was the longest time, what was the other end of the scale for how long it was taking people to get through the program?

#### Nick Howe:

Typically, we don't see ... When we're converting existing content, the maximum time is often maybe a little bit more but not much more than it would've been. So we're not talking about double or anything crazy like that.

#### Nick Howe:

But what is clear is that where people do take eight or 10 hours, it's pretty obvious that they would've really struggled in a classroom environment, because it's clear from the data that they've had to have multiple interactions with particular learning objectives before they were able to master it.

#### Nick Howe:

And in a classroom scenario, we all know, we've all been in that situation where you don't quite understand something, that the instructor's on to the next topic, and now half your mind is on the thing that you were trying to figure out before, and half of it is on the thing that you're doing now, and then you lose track of what that one is, and it all goes downhill from there.

#### Henrik Harder:

No, you could say that the overall course duration has been reduced for all participants, and many of the participants can do the work home while they are working with the Area9 e-learning component very fast. And also, the cost to the learner have been reduced, and every participant, I would get back and to work more quickly, with less time away from the job by using these solutions. What I want to intervene a little bit and talk about the instructors, because they are also-

#### Michelle Ockers:

Yes, let's.

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#### Henrik Harder:

Yeah, they are also very important: For us, as Nick told you, we have part-time instructors, 30, more than 30 actually, and they were a little bit confused what to do when we introduced the new solution. But they actually, today, love the solutions, because instructors now know the level of the participants before meeting them on the course. Before, in old days, this was a kind of black box: You were meeting with people you did not know, and you had to be together with them for two days, and many of these were stressed because they had to have the certificate in order to keep their job.

#### Henrik Harder:

But now, the instructors exactly know how the participants are performing, and they can now put them together in groups, enforcing different competencies. And I could say that we also actually tried the Area9 solution, the e-learning component on our instructor, so now we know the level of competencies among our instructors, and that was also very nice.

#### Henrik Harder:

But we kept all our instructors, so nothing happened here. But it gave me, as a CEO, a unique insight in how the instructors actually perform, and that was new to me, because I've been in this world for nearly 20 years, and it was the first time I could see precisely how the instructors were performing.

#### Michelle Ockers:

So Henrik, from a change management perspective then, what did you need to do to work with the facilitators and to prepare them?

#### Henrik Harder:

Well, we worked intensively with them. We were choosing people from the instructors, among the instructors to deliver the input to Area9. So they were heavily involved, and we had working groups checking the curriculum all the time, and we also had several meetings and work groups with the instructors in order to get the understanding of what we were doing.

#### Henrik Harder:

And everybody got a certificate as instructors able to do the supervision in the Area9 way, and we were very happy afterwards. But it took some time in order to facilitate this, but it was also a great success, and I think today they will never go back to the old way. They will never go back to the PowerPoint and they will never do a whole day just trying to tell people on what is on the PowerPoint. So they love the solution also, so there it was also a very good solution for everybody. And we still have all our instructors, so everybody is satisfied.

#### Michelle Ockers:

That is a good outcome. So Nick, you talked a little bit before about some of the data that is available to the facilitators to work with. Can you tell us a little bit more about what data they're provided with and how it helps inform their work?

#### Nick Howe:

Sure. So as I described, the way that the application works is we're inter-mixing questions and content, and the system is capturing every learner response. So for every question or assessment item probe as we call it, every exercise they do, we capture the learner's response, and we capture their self-confidence, and how long they interact with that. And likewise, if we show them a piece of content, we also ask them for some feedback: "How

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familiar were you with this? Do you think you understand this?" And the time associated with that as well, and we're capturing and storing all of that. Now, the adaptive engine needs that in order to work its magic and figure out where to go next. But that information is available either as an individual data element or aggregated. So one of the ways that the instructors can use that is to say, "Great, everybody achieved 100% proficiency," and that's a point we shouldn't overlook. We have evidence that everybody not just completed the pre-work, but actually demonstrated proficiency.

#### **Nick Howe:**

So we know that they're coming to the class well prepared, so that's kind of item number one. As an instructor, I now know, yeah, everybody did this, and they achieved competency. So we've got a good baseline that we can now work with. Number two, you can see who found it easy and who struggled, who needed longer, who were the ones who maybe had more misconceptions, in technical speak what we call "unconscious incompetence".

#### **Nick Howe:**

You've got an engineer who thinks they're God's gift to roadwork and they think they know all of this, but actually they had built up some bad practices, and the system is able to identify that because we can see that they're over confident and they think they know things they don't. So maybe that's someone the instructor needs to keep an eye on in class. Maybe there's someone who absolutely knocked it out of the park, and the instructor can call on them, as they do the games and the practice, they've got someone they know they can call on to maybe answer a question and help the class out.

#### **Nick Howe:**

And then you've got the folks who struggle, and as an instructor, if I know that someone really struggled as they're doing this, maybe I can keep a bit more of an eye on them and help them if I see them getting into difficulties. And then the other component is you can drill into particular topics. So over that nominal eight hours of content, there may well be something that, for this particular group, they really struggled with.

#### **Nick Howe:**

And now, when we get into the classroom scenario, maybe we can adjust those role plays so that we emphasize that bit somewhat more, so that we know that everybody really gets it, and they're well prepared when it comes to the exam, and the ability to get their certificate. So there's all kinds of different ways that you can use the information, particularly in a blended environment, again, to better meet the needs of the folks who are coming to class.

#### **Michelle Ockers:**

So Nick, from your perspective, what were the challenges with completing the project and launching the solution?

#### **Nick Howe:**

I wish I had a long answer for you, Michelle, but actually, it was relatively straightforward. VEJ-EU were a fantastic partner to work with, the content was very well structured to begin with, and so that was relatively straightforward to migrate over. The actual process is very simple. Like I say, we've done everything we can in the platform to make that process simple, and the actual change program was relatively straightforward. Overall, it was a relatively straightforward project, I'm pleased to say. Hopefully, Henrik would agree.

#### **Michelle Ockers:**

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Well obviously, Henrik is happy with the outcome. It sounds like it was very successful.

#### Henrik Harder:

Yeah, it's a little difficult to answer the question, because I think Nick is very polite, this is actually a very nice and successful project, and I also have to say that Area9 was a very trustworthy partner in this project.

#### Henrik Harder:

So we delivered on time and on cost, and everybody was actually satisfied. I just want to, in the story, in a way, talking about the exam because that was also a success, and we have as many graduates taking the certificates now as before we introduced the Area9 component, but we actually did change the exam. So now, the exam is also training, and what happens when you go to the exam is that you get in touch with a program in front of your computer, and then you have this training, and in this case you should do the training session in one hour.

#### Henrik Harder:

So the exam situation is much the same as the training situation, and it's actually also very nice for the participants to be in an environment where they know what to do. So they are not stressed. They know what to do, and we are very keen on the result because we can check directly and precisely, using the program, that the participant actually met our criteria in order to pass the exam and get the certificate.

#### Michelle Ockers:

Nick, if anybody is keen to do more with adaptive learning, what would be your key tips to help them to get started?

#### Nick Howe:

First of all, don't be frightened of it. Well, I suppose first of all, become aware of it. There are far too many people who really just don't understand what adaptive learning is. I've been on this journey for about seven years, and I've been surprised in a very bad way about the practices that we were doing. I ran a huge learning organization, I was spending \$10 million a year rolling out ILT and online programs, and only now do I realize how bad some of them were, and they were award-winning programs.

#### Nick Howe:

And so number one is educate yourself and think deeply about are you actually delivering not an engaging experience, yes, it's got to be engaging, but an impactful experience: Do you know whether your learning is actually helping the learner learn something or not? And if you can't answer that question, I'd suggest you've got something wrong with your learning strategy.

Number two is don't be frightened of it. It isn't just a buzzword, it is something that we believe is a profound change that it coming to the industry, and you really need to become familiar with it.

Thirdly, don't be frightened of that change. It can be a relatively simple change. Yes, maybe you've got to change your authoring tool, but from a learner perspective, the learners don't care, it's just another course they've got to take. So it can be a very non-disruptive change, you can also deploy it as a SCORM object through the LMS, so you don't have to rip and replace your entire infrastructure. You can start very simply just with a single course for some small audience, and as Henrik said, they chose their level one road program as the starting point for this.

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#### Nick Howe:

They didn't change any other part of their curriculum, so the other levels and the other programs they had didn't change to begin with. They were able to pilot adaptive with this first course, prove it out, and then move on. So there's a maturation that you can go through: Understand what you're doing now, understand that there are other options to do this, and then take the baby steps on the road to what we believe is where the future of the industry is going. Medicine is personalized, Netflix is personalized, everything these days is personalized except education, and that's one of the most human things there are. So surely we need to solve this personalization issue for education going forward.

#### Michelle Ockers:

And it's about a lot more than, "If you like this course, you might like this other course," which is-

#### Nick Howe:

Absolutely.

#### Michelle Ockers:

We should be going well beyond the Netflix for learning, right, with the personalization of learning.

#### Nick Howe:

Absolutely, yeah. That's a whole other hour-long podcast.

#### Michelle Ockers:

We won't do that. Henrik, is there anything else you'd like to add in closing?

#### Henrik Harder:

No, I would be happy to continue the corporation with Area9 and the products. Seen from a Danish, Scandinavian perspective, they are front runners at the moment, and so I look forward to engaging with them further.

#### Nick Howe:

Thank you.

#### Michelle Ockers:

It's great to be able to bring a good news story to our listeners, and I will include a link to both of your LinkedIn profiles, if anyone would like to get in touch with you to find out more about the story we've shared today. Thank you so much, Henrik and Nick, for sharing your work and insights with us today.

#### Nick Howe:

Thank you, Michelle.



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### **About Michelle Ockers**

*Michelle Ockers works with business and learning leaders to realise the untapped potential of learning in organisations. She is an organisational learning strategist and modern workplace learning practitioner. Michelle works with organisations to develop and implement transformative organisational learning strategy, and to build the capability of their learning team. She delivers keynotes, workshops and webinars for learning and broader professional or workforce groups at both public and in-house events. Michelle also mentors learning professionals at all career stages on career planning and professional development.*

*Michelle received the following prestigious industry awards in 2019:*

- *Australian Institute of Training and Development Dr Alastair Rylatt Award for L&D Professional of the Year – for outstanding contribution to the practice of learning and development*
- *Internet Time Alliance Jay Cross Memorial Award – for outstanding contribution to the field of informal learning*

*Michelle can be contacted at [michelle@michelleockers.com](mailto:michelle@michelleockers.com).*