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From traditional retailer to digital retail company with Sylvain Geron, CDO & CTO Carrefour France
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I'm not sure we know we can guarantee that what you'll eat will be perfect with Jenny. I’m making the menu And maybe making up some ingredients you never know That’s for sure. You could have some fun just corrupting it slightly behind the scenes just randomly. Sometimes it'll have Motor oil.

Welcome to Cloud Realities, a conversation show exploring the practical and exciting alternate realities that can be unleashed through cloud driven transformation. I’m David Chapman. I’m Sjoukje Zaal, and I’m Rob Kernahan.

And this week, we’re going to talk about digital transformation in the retail sector, a sector that has gone through many waves of change and pressures over the course of the last 10 years, not least the pandemic.

So today we’re going to explore that from legacy technology, the eighties, all the way through to gen AI. But before we get onto that, we usually have a moment of confusion in the show that Rob brings us and we've made a little thing of it. So Rob, what's confusing you this week?

There's plenty of things, however, It is a problem with me being confused a lot. But this one is around the annual tech cycle, which is the tech cycle. Yeah. And we’re caught in it. We’re caught up in the furore of is a mobile phone here. I have another mobile phone and now I have another mobile phone and now I have another mobile phone and then another one.

And we seem to be stuck in this. Process where we just get consumed by the, I want the latest, I want the latest, I want the latest, albeit the latest generally has a very small difference to the one that previously went and the previous one still works perfectly well. And as at the core of it, obviously it’s quite exciting and there’s lots of hype and all the tech companies drive it.

It’s a big cycle, but it’s not very sustainable, is it? The bit I’m confused about is when will society say enough’s enough, the annual cycle has to end and move along now and get out of the hype. We’re in this massive hype cycle. And I just think it’s, can we sustain it? Cause it’s not sustainable.

You'd think if society was going to come to that conclusion would have come to that conclusion about five evolutions of certain forms. Ago, wouldn't you? Because your point there is entirely right. Like the slightly different colors or very minor interface upgrades are feeling less and less exciting every year.

You know what I mean? So like societally, I don’t know when that’s going to, like the penny’s going to drop on that, frankly, maybe it’s going to be regulation or, and I think from a point of view of sustainability is the right angle here. Or we just get into it where there’s not been a massive leap in the, Technology that we consume.

Yeah, we’ve had things like foldable phones say that’s a bit of a change, but it’s all very samey. But yet we’re still in this hype cycle and I just can’t see it breaking anytime soon. But yeah, we all want a better camera each and every year. I want extra five pixels, please. Yeah. And I'll pay a thousand pounds for the privilege.

And that literally is what you do. So on that note, let’s move on. And let’s talk about the main subject of the show. We’re going to talk about digital transformation retail. And I am delighted to say that Sylvain Geron, in France for Carrefour, one of the world’s largest food retailers.

Welcome Sylvain. Great to see you. Why don’t you introduce yourself and just tell us a little bit about Carrefour. Hi Dave. Yeah. So I’m Sylvain Geron, I’m CTO and CDO of Carrefour in
France. A company I joined about a year ago, and I’ve been doing a lot of transformation because retail needs technical transformation right now.

So I believe Carrefour is on a transformation journey that’s going to take it in some new directions. Perhaps just set the scene for us, Sylvain, and just where are Carrefour today and ultimately what are they trying to do over the next five years? Okay. So Carrefour is one of the largest retail company in the world.

It’s got about 400,000 people working for it. And it’s in right now, eight countries. And it has really changed direction a lot about five years ago when the new boss came, Alexandre Bonpas. It had not adopted tech at all. Five years ago. In fact, the previous CEO didn’t have a PC. Did he get all his emails printed out?

For sure. But I’m not even sure he knew what an email was, but I’m joking, but in any case, no, there was a tremendous shift at that period of time where the company was. Not doing so great and a new boss decided to make a rather a lot of changes has reduced the number of countries where we are and has decided to invest more and more in technology to transform the business towards the customer.

So a big shift, a big investment on e-commerce and on the one side and on the other side, transformation of the software we’re running on, which is. Pretty old. So we’re still in that process right now. It’s a long process, but I can say that. Carrefour is a very different company from what it was five years ago.

And have the circumstances around the digit elements of the transformation, particularly what you’re talking about around e-commerce and perhaps customer experience, have you found that the COVID was an accelerant effect on some of the things you’re doing there, or were you already in train with a lot of the things?

That you managed to leverage during the pandemic. Yes, the COVID has accelerated things for sure on e-commerce, but that’s only one part of the transformation because Carrefour still has about 95 percent of its customers coming into the shops into the stores. And so for the second part of the transformation, I’m not sure the COVID has accelerated anything.

Because some of the shops were closed the opposite of anything. Yeah. At least for what’s happening in the shops, but for the way people work. Yes, it has changed everything right now. We are most of the people in the company at least the one in the offices can homework work from home two or three days per week.

The offices are not full of people work from home and it works very well. And it has, I think that helps the transformation. That’s, and that’s quite a curve you’ve gone through. So this going from not so technology focused to being totally technology focused and then having the acceleration of what COVID’s done for hybrid working.

That’s a, it’s a very short, a short amount of time to introduce. What sounds like quite a lot of cultural change was there a few bumps on the road or did most people just get to grips with it quite quickly. What was that experience like from a workforce perspective? I think it has been seen that it was a cultural thing from the beginning.

So since the beginning of the transformation, we’ve done quite a lot of training. A lot of, like cultural shifts talking to people about different ways of working different ways of seeing how innovation can change the business. So there was a lot of talk since the beginning as to, we should change and we’re still doing it right now.

So I think that has been well prepared at the beginning. And that’s often a big thing that some forget with digital transformations. Let’s set a strategy and walk off. But that
continuous conversation with the staff explaining how things have changed, why it’s good for them. What’s the benefit to the business?

That’s the thing that when you get right, it feels like it’s a much easier journey and people are much more accepting of the change cycle, basically. Yeah, sure. And there are several transformations you have to go through, because there’s one which is different ways of working for the tech teams. But there is then different ways of working for the company as a whole business with tech.

And there are different, I would say, different streams or different timelines for those evolutions. Not everybody behaves the same way with changes in tech. Let’s return back to the macro transformation objectives. And I think you talked about two potential focuses, one being customer interaction and one being the operations themselves.

So let’s maybe take those in turn. Let’s start with a customer interaction then. So you mentioned that a number of your customers or a bulk of your customers are still using physical stores. What’s the omni channel strategy that you have in place and where are you on the journey to creating a seamless digital to physical?

Experience we are still in that process. I would say that if you look at the French territory, we’ve done transformation differently in different territories because those were not integrated during that transformation. We’re doing now and so that transformation for France has been mainly into investing in more and more e commerce so more and more tools for the e commerce development of how it serves the end customer.

That’s, I would say the main transformation in France. If you look at Spain, it has done the other way round. It’s more and more tech for customer in the store. So tools to help the person make its buys in the shop. And and so in the end, the apps that we have in France and in Spain are today a little different.

And that final transformation, which is to converge and to help the customer, both in the store and in e commerce is something that I’m doing right now. And how far are you pushing in store? So you move into sort of frictionless shopping and things like that. Amazon go style.

Yes.

Yes. One of the main points is accelerating payment with the help of the app. That’s surely something that has to be done very quickly. It doesn’t have necessarily to be like it has been done by Amazon. This needs a lot of tech. This is, this has also difficulties if you have the tremendous amount of different products that we have in our stores.

There is, there are some limitations with that store size as well, I would imagine, because it’s extremely tech heavy in store, as you were saying. Yeah, exactly. We’re doing different things, preparing different things, but yes, it needs tech. So there’s customer interaction. And then the second major plank is around improving ops themselves.

So I guess that would be an install stock supply chain, how to work with partners. You just want to build that out a little bit for us just to get a sense of The other half of the transformation, the other half of the transformation is really making it so that the journey of the customer is seamless and that has different aspects to it.

For instance, the price we are doing a more and more changes in price, there is promotion, there is inflation, so price is changing and things were done quite manually historically and so a lot of a lot more automation, automatic. Price change etc making sure that the price in the aisles is the same as the price that the customer pays in the end this needs automation and the tech that you’re currently.
Working on so I think you know most organizations as they're going through modernization journey like this a dealing with generally with a fairly substantial amount of heritage technology that's actually probably looked after the company for quite a long time but you know everything comes to the end of its natural life and needs some fairly substantial upgrade so are you in a similar place so that way you're dealing with.

How are you managing your legacy backend at the same time as trying to build, competitive digital technology. I think there are at least two industries which have not done a lot of transformation with I would say that their backend mainframes is the banking industry and maybe part of the retail industry.

And so when I joined Carrefour clearly we were there. We're still on mainframe. So cloud was very far away. And right now we are at the end of a process of going to cloud. Making it, making things much more agile. We're about at 80 percent right now. [00:12:00] Oh, very cool. It always surprised me how well the mainframe.

Has survived retail and banking were one of the first to embrace computerization for the obvious benefit and they obviously worked really well. So we should pat them on the head and say, thanks for all the hard work you've done. But now they're almost impossible to kill because all your core business processes are tightly wound into the middle of them.

And it could be extremely frustrating. It's a battle, something that's been there for so long, 30 40 year life cycle for some. Suddenly you try and delete them and it causes a lot of pain from a business process perspective as well. Have you struggled with having to change internal processes or did that come quite easily as you’re replacing this tech?

I totally agree with the fact that it works well and it has worked well for a very long time. And so we need to be very cautious before changing that. But the problem is that it has, iced the processes, you cannot chance them. And we are noticing that customers want such and such change.

[00:13:00] And you're stuck with the fact that it's very difficult to make evolutions. We don't have any new people who know how to develop in COBOL. And that’s in itself already a very strong hurdle. And so we need to make that change and we’re doing it slowly. We are doing it cautiously. We need to make it and we find out that we.

Can put forward business improvements. It’s, there is return on investment in the end, but if you don't show the return on investment, the company doesn't want to change that. And did you do that over the last five years? Because it’s technical, also very challenging to move that to the cloud. To be honest, the 80 percent that we’ve done is everything else.

And we’ve started that part of the transformation about a year ago, and I think we need about. Three, two or three more years. It’s like fighting the last IT dragon, isn’t it? It’s a heroic tale of the knights of old trying to slay the final dragon. [00:14:00] That’s how I see myself. It’s I have a sword.

Constantly battling and waging warfare. And let’s talk just a little bit about your cloud migration. Was that, did you do, did you go the app modernization route or did you go the lift and shift for pace route and how did your decision making around The cloud transformation itself key into the wider digital transformation objectives.

That is a very interesting question. When I joined Carrefour, the project was to do a lift and shift of that mainframe. And in the same time period the business side were wanting to make very much, a lot of changes. And it’s very difficult to make changes and in the same time, make a lift and shift.
You cannot. So you have to choose. And so we chose to go towards transformation. That’s cool. I agree. It is very difficult to try and back both horses, but it also can be very difficult to modernize every single application, particularly if you’re doing a lot. But how did you balance that? I was balancing say like time and cost in particular against that modernization.

Did you categorize applications and say like top 20%? Those are going to have actually strategic rebuild done versus like the bottom 20 percent where we’ll do as little as we possibly can there. You’re talking about it’s like there are different applications, but really it’s like a big book.

There is one. Very big application. And so the first thing that we have to do is try to find how we can modularize that, how we can cut that into little bits. And then we are, like with the sword, we’re taking bits out one at a time and I like the way you’re hanging on to Rob’s analogy. And that works because we find out that there are many bits which we take out where there is a business sense.

To taking that bit out and modernizing it. And so up to now and the last, so 18 months all the projects that we’ve done to take things out of the mainframe have been with arrow. I’m sure that in the end, like in two years time, there will be the last bits with no error. I, but I think we will do most of the way or a lot of the way.

And will there be a little bit of deprecated and no longer serves a purpose? Take a little moment to remember what it was and how well it served. I do think we need to salute them as they go into the night. A lot of time has passed and I’m not sure anybody from the beginning is still here.

One of our last COBOL developers went on a retirement last year. Yeah, so one of my last companies, BP did when we exited all of the data centers and they sent chunks of bits of the retired computers as mounted little trophies to various different people that were involved in it.

So maybe you could do that with your mainframe, send parts of it to some valued members of staff. Yeah. You can use your sword again. Yeah, there are other things you can do with the mainframe. I put some COBOL code into chat gpt and I had some explanation of what it was saying. So there are still some services or apparatus which understand this code.

You raise a very good point there. Maybe the unexpected thing from the advent of Gen AI is extending the life of COBOL for 50 odd years. Oh, can you imagine? You don’t need humans anymore to do it, right? We’re trying to get rid of it for decades and you’ve just extended its life. Oh my word.

Those Gen AI can translate into other code, can document, can so yeah. Yeah there’s a lot of that where there’s loads of mainframes where they’ve lost the documentation. You can just whack the code in and chat GPT explains it all and says, there you go. There’s another decade of shelf life.

Yeah. Sort it out. Yeah, it’s possible. That’s insane. That’s mech suit stuff right there, but let’s talk a little bit then about data. So within all of this, clearly data is going to be right at the heart of the transformation. I think I’m making a leap there, but I’m fairly certain I’m on safe ground with that.

So tell us a little bit about your data challenges. Like one of the things that we talk to people a lot about on the show is data. Now everybody takes for granted that they’re going to do it, but all of the challenges behind getting data lined up, getting it washed so everybody,
everything means the same thing.
So everybody it’s still not easy, is it? So whereabouts are you guys on your data management journey? Luckily, data has been the first thing that the company has worked on when the transformation started. So a big data lake has been built. It’s real time. It contains most of the available data and it is used throughout the company right now.

So I think that’s really that was before I joined Carrefour and I think it was, they did a tremendous job. I think it’s world class right now. What we have in [00:19:00] data all our data streams from the shops we have. And so I can see real time people buying things from throughout France. Do you have a heat map of, yes.

And then obviously for planning and forecasting and those cycles, that type of real time analysis. can be, very useful for an organization as large and as distributed, because there’s got to be massive regional variations in that and what’s happening as things move and such so that’s got to be a big boost to the sort of supply chain and logistics part.

Yeah. So we have that, we have those heat mats, we have a real time analysis. The issue when you have all that data is to use it intelligently to to make new processes stemming out from that real time data. And that’s that’s what we’re working on. With a data set that’s that real time and that orderly, you must have some amazing exploits for Gen AI already, I would have thought.

Sure. That’s a good idea. We have started to work on Gen AI. It’s not the first subject we’ve [00:20:00] used it on. We are learning like many people. It’s quite new. Yeah. Gen AI, we have used it on making recipes for customers on our website. They can ask for recipes and the gen AI makes the menu for the week and you click on the button and you have your cell that is prepared for you to buy for the rest of the week.

That’s a beautiful convenience. That where you can pick your, what you want to eat and then the ingredients are prepared. Cause that’s a bit of a nightmare having to make sure you’ve got all this stuff. Yeah. It does the translation for you almost. Yeah. And it’s like an order that creates your basket for you.

And it’s just how much time is spent doing that. And you just let the computer just take a huge swathe of your week out. Simplify shopping. That’s the right way to do it. Make it easy. Yeah so we’ve done that. Some people use it. It’s not massive, right now, because it’s really a new way of when you make your purchase, people not used to doing it this way.

But really it’s it’s [00:21:00] starting to grow. It’s like you’re purchasing particularly in food. It moves from, he’s the. 30 things that I’ve got to now grind my way through to try and work out how to do it. No, I want to have beans on toast on Monday. I want to have, a barbecue on Tuesday.

It’s great that. That’s great. Exactly that. And I think it’s one of those things when everybody starts to do it and it gets built into popular culture and people learn about it, I suspect it’ll take off quite quickly. You just need to get the groundswell going. It immediately feels yep.

I’m in on that. It’s something that makes my life easier. And it works well. I tried it with asking it to, can you give me some Asian menus for the rest of the week? And it’s really listed the menus, what’s was in the ingredients. And it said okay. And with salt and the rest you must have that at your house.

So no problem. I won’t give it to you. And I said, no, I need it. Give it, give me that as well. And so it listed all the salt, pepper, et cetera. It’s very precise. I like that. That’s cool. [00:22:00]

There’s also, it’s got to be, it’s got to be able to tie into things like nutritional guidelines and,
you tie it to health, honestly this state copyright cloud read.

I want to lose weight. Here’s your menu for the week. Yeah. Yeah. No, that’s the, but that’s a good point. Cause if you could prompt people from a lifestyle perspective to say, we’ve ordered it for you, but are you aware you might want to cut back on the following because it’s above. Recommended weekly consumption or something.

There’s a lot in that as well, isn’t there? And in fact the gen AI that we train, it has this data because it’s one of the things we communicate a lot on the health when you eat. And no problem. You can ask those questions. You’ll have the answers. And this example is really a very interesting because it touches everybody.

Everybody could use it. You have some other use cases, gen AI, like answering HR questions, but it’s less mainstream, less exciting though, isn’t it? Although important, let’s not say that’s not important. However dot, that sort of simplification of [00:23:00] weekly meal planning is brilliant.

Real lifestyle stuff, but look let’s try and bring our conversation to a little bit of a close by talking about the hard yards. So there’s always challenges in going through this. You’ve talked us through a journey and you’re very well on with cloud migration, data’s in great shape, some fantastic experiments with gen AI and very clear business outcomes for.

For all of these things being visible, but tell us a little bit about the journey. What has it been like to go on the journey and what are some of the challenges that you’ve had to take on? I would say there are two main challenges. One challenge is that making such a transformation, it has a cost.

And the cost can be pretty big, when you change all the software and your mainframe, it costs a lot, very much. And you need to convince that it is necessary and convincing of that is quite difficult, in fact, when you’re talking with people who understand the business, but don’t understand why [00:24:00] it should cost so much.

And I found that this is the main challenge and it costs and the business, there is a lot of competition. So each euro needs to be looked after. So no, I would say convincing all the other counterparts of the necessary cost of what we’re doing is maybe the first challenge. Then there is a second challenge, which is working with them.

Changing the way changing the ways of working in the retail. But I think it’s very true in other industries. Businesses was quite separated from tech. In fact, it used to be not in the same places, not in the same city. And so making teams be more agile, working together, business and tech. This has needed a lot of cultural transformation.

Building digital teams, mixing the two profiles. And for that, to some aspect, we’re still in that process of cultural change. And I think it’s true to say that if you don’t get [00:25:00] that bit right, so if you don’t get the cultural change done, you don’t change the ways of working, you don’t really get some of the benefit out of the technology.

What’s interesting is that we have, like finance on the one side, e commerce on the other side, and the speed. cultural change is very different between the two. And in between, maybe you have like supply chain, which has maybe a better understanding of tech. And so really in the in, in my team with my teams and with the business, the chain has not been in the same rhythm.

So Sjoukje, what you’ve been looking at this week. So each week I do some research on related ideas and transformation. And this week I thought we should take a look at what Gen AI can bring to the retail industry. When OpenAI revealed ChatGPT in late 2022, [00:26:00]
it created a huge explosion of global interest and excitement on a scale we’ve rarely seen before.

Gen AI is incredibly powerful, flexible, and it has the ability to reinvent the way companies run their businesses, serve their customers, and get their work done. And retail is right at the center. Generative AI's adaptability and flexibility will support frontline workers, manage data, create faster insights, and connect with customers.

Retail companies will be able to personalize product recommendations and optimize store layouts with Generative AI. So a question, Sylvain, you already mentioned using GenAI for HR and for recipes, but do you see other areas in retail Where can i is already used or can be really beneficial i have not seen up to this point other players in the retail industry use jenny i so for that question i would say no up to this point but we’ve.

Made a list [00:27:00] of all the places in our company where we see Jenny I could be used and there are dozens of ways to use it so we’ve started using it on a few aspects like I mentioned HR and recipes but we’re already thinking about using it in many other places the big thing for Jenny I for me or what why did it get so so exciting so fast was the human interaction what it’s given us is an ability to interact with the computer.

Natural language style. So suddenly I was the domain of the data scientists behind the scenes. And now anybody can start to use it in query. And that accessibility has allowed so many more potential uses because it’s easy, isn’t it? It’s just made it really easy to you. Are you talking about confluence technology, Rob?

There’s that word again, Dave. Yes, I am. The confluence. It allows us to bring it all together. Yeah, absolutely. 100 percent of it. Yeah, and that change, I think, has created so much more potential in the system for it. [00:28:00] The thing that I’ve been noticing about Gen AI application so far, and this might be my ignorance, but I’ve not seen a better answer yet, is that there’s some phenomenal point implementations of Gen AI in multiple different processes.

So I don’t know whether we’ve mentioned it on the show before, but we use Gen AI in multiple different bits of the show. Oh yeah, I think we’ve mentioned it in the live show from Edinburgh. We use it in four or five places just on something as, modest as this. And therefore, when you’re applying it to big industrial scale processes, you can see the value of it, very quickly. And it’s not only in the brilliant customer experience that you were describing earlier, Sylvain, but also in just time saved the, just the sheer amount of information you can drive out of situations that, that has been contextualized for you is actually. Is actually way better than you think it might be from just toying around with chat GPT, but the thing I’ve not seen yet, and I don’t know whether any of you guys have seen it yet, is how you all tie all of that together on a [00:29:00] platform.

So at the moment, I’d imagine Sylvain, it’s pretty expensive because you’re having to, you’re having to develop everything from scratch each time. And would it be useful to have some sort of containerization or a platform on which you can start leveraging different. Things of it without rebuilding the whole time right now we are using it through a calling api’s from a open ai or api’s from google so that’s pretty easy because that’s how we developed right now using api’s so the platforms it’s not our platforms but it’s the other guys.

Platforms and it works pretty well, depending on the algorithm that you use the cost can be very different prices can be multiplied by 100 if you don’t watch out, that’s the important thing. And you also see the cloud providers come with these types of platforms, right? To be that man in the middle and, orchestrate that for you. For me, there’s a second revolution
that has to come with AI, which is, we’ve got the mech suit version of AI where we can accelerate and you call on it through the APIs and point solution, like you say, but I think there is an integrated thing coming out, which is much more sector focus.

That’s going to do lots more end to end in a constructive way. You know what? I think traditional supply chain systems and logistic systems in a couple of years, AI is really going to make that a lot more efficient, effective and sustainable as well. The way it will be able to calculate supply chain changes much more easily, I think, will be a big thing.

It’s going to take a cycle of maturity to get there, but that enterprise grade, end to end style AI, I think, will eventually arrive. I, yeah, we’ve shifted from Gen AI to ai ai, regular ai. Yeah. We’ve started using that in many different aspects also, and especially, like you say in supply chain. Yeah.

’cause it helps automating ordering, it helps optimizing assortment, et cetera, et cetera. Yes. No I definitely agree that’s exactly what I was. Trying to get to Rob is this notion of like end to end pieces of capability that are stitched together in a, in less of a point solution way to create extremely robust end to end solution.

So yeah. Brilliant. So good conversation, everybody. Sylvain, thanks so much for your time today and your insight. It’s been really good to see you again. Thank you very much guys. Very interesting discussion. Now we end every episode of this podcast by asking our guests what they’re excited about doing next.

So that could be I’ve got a great restaurant booked at the weekend or it could be I’ve got something interesting coming up in my professional life. So Sylvain what you’re excited about doing next? The weekend is coming. We’re on Friday, and I shouldn’t say that we’re on Friday. Yeah, no, you can say that we’re recording Friday.

Definitely. It’ll get released on a Thursday. So I’ll get the hope up for some people listening. Okay. We’re on Friday and I have a lot of sports this weekend. I’m running a half marathon. I’m doing golf competition. That’s what I’m excited right now, but had to finish the day. Nearly there. We’re nearly there.

We’re so close you can touch it. So a huge thanks to our guest this week, Sylvain. Thank you so much for being on the show. Thanks to our missing in action producer Marcel, our sound and editing wizards, Ben and Louis, and of course, to all of our listeners.

We’re on LinkedIn and X, Dave Chapman, Rob Kernahan, and Sjoukje Zaal. Feel free to follow or connect with us and please get in touch if you have any comments or ideas for the show. And of course, if you haven’t already done that, rate and subscribe to our podcast.

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