



## **PODCAST TRANSCRIPTION SESSION NO. 179 / LOWELL PUTNAM**

Welcome to the Lend Academy Podcast, Episode No. 179. This is your host, Peter Renton, Founder of Lend Academy and Co-Founder of LendIt Fintech.

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Today's show is sponsored by LendIt Fintech USA 2019, the world's leading event in financial services innovation. It's coming up on April 8th and 9th, 2019, at Moscone West in San Francisco. We've recently opened registration as well as speaker applications. You can find out more by going to [lendit.com/usa](http://lendit.com/usa)

**Peter Renton:** Today on the show, I'm delighted to welcome Lowell Putnam, he is the CEO and Co-Founder of Quovo. Now Quovo are a fascinating company, you may not have heard of them, but I can almost guarantee that you have used their products in some shape or form because what they are...they are a data aggregator, data connector, shall we say. They really enable consumers to share their financial data and they work with companies like Betterment and SoFi, Wealthfront and others.

I talked with Lowell a lot about how their system works, what they actually do, how they're able to connect with 14,000 different financial institutions. We dig into their lending offerings because it's a vertical that they're making a lot of headway in today. We also talk about open banking and GDPR and others. It was a fascinating interview, I hope you enjoy the show.

**Peter Renton:** Welcome to the podcast, Lowell!

**Lowell Putnam:** Thanks for having me.

**Peter:** Okay, so let's get this started by just giving the listeners a little bit of background about yourself and what you actually did before you started Quovo.

**Lowell:** Sure, so I worked in investment banking at Lehman Brothers actually for as long as anyone did, through 2008, the bankruptcy, and then at Barclays after that. I worked in their Financial Institutions Group, specializing actually in consumer lending. And so when I started Quovo several years later, it was primarily focused in the wealth management space, and not the lending space, but over time since Quovo began, we've actually gotten more and more business from the lending space for a number of reasons we can discuss. But, it's ironic that nowadays I'm actually coming back around closer and closer to my very first job 13 years ago which was in structured finance, credit card lending, auto lending. It's fun to be back full circle where I started.

**Peter:** Okay, so then what was the idea that inspired you to start Quovo?



# LEND ACADEMY

**Lowell:** So the original idea behind Quovo was wealth-focused and investment-focused. The idea was that there really wasn't any transparency into the "how am I doing" question that a lot of us have when we look at our finances and I thought that the area with the least transparency and most difficult to answer to get was related to investments, where a lot of people have a lot of their assets. In many cases, it was what they were relying on for retirement and it's very hard to know how well prepared people are when they have complicated financial lives.

So the initial point of Quovo, and a bunch of that technology is still unused today, is to aggregate brokerage accounts, wealth management accounts or in one case, IRAs, which is a really complicated data set, compared to TDA or checking account so multi-position, multi-currency. We had to solve a lot of these problems early on which, when you fast forward now into a much broader set of accounts that we cover, has served us very well.

So over time, our customers began very wealth and investment-focused and then as we've seen through the explosion of fintech over the past several years, the lines have blurred between wealth and lending and insurance and banking. There's been a re-bundling of so many product types that we've been pulled by the market out of just aggregating investment accounts.

Today, actually, the overwhelming majority of accounts in our system are bank accounts and credit card accounts; the everyday accounts people use to run their lives. So today, our product set is much more diverse and handles account verification, account authentication as well as aggregation and value added insights on top of the data.

**Peter:** Right, okay. So maybe you could talk about how your product works exactly because, you know, I've seen some of these aggregations, you've got Mint and others that are doing different things in aggregation and, you know, it's feels like to me complex because you're dealing with different companies with very different ways of doing things and you've got to try and present everything in a coherent way.

You've got to connect to all these companies and I imagine it's very different types of connections and different levels of skills involved in actually dealing with a company like yours. So maybe just talk a little bit about how you're able to kind of pull these all together.

**Lowell:** Sure, so Quovo really is the guts, we're the picks and shovels in the infrastructure underlying applications like Mint.com, Betterment, Wealthfront, SoFi, Robinhood...all of these fintechs as well as enterprises, like large banks and wealth managers and insurance companies...so we're the underlying pipes and connectivity layer that allows consumers to link their accounts into a third party application.

So to do that, we have, to your point, retrieve data from your bank account, wherever that is, and then normalize it so that we can then distribute it back out to the app in a way that the app does not have to tell the difference between a Bank of America versus a Chase account or a Fidelity or E-Trade accounts. We give them a clean, vanilla, normalized data model that they then can then use to put into whatever their product is for you, be it better wealth management or faster loan underwriting or ACH-ing money back and forth between accounts.



# LEND ACADEMY

They know that the Quovo API is a single normalized data model for those. So the three pieces of our stack are the collection piece where we go and retrieve data from institutions, usually using credentials or other customer authentication methods where the customer authenticates the way they do with their institution and then we retrieve data back.

Then we have a massive normalization engine that makes sure the data looks apples to apples across different institutions. And then we have a deployment layer which is our API or we have some front end tools or flat files to get that data and send it out to the application who's actually our customer.

**Peter:** So, on your website you say you have access to 14,000 institutions...obviously, sometimes when you sign up for a new service and it says "link your bank account" and it's got many, many different bank accounts there, is that the technology that you're talking about there, or when you say access, what does that actually mean?

**Lowell:** That's exactly right. So when you sign up for a new service that says link your bank account to fund or to access data, that's us. So while we don't have 14,000 unique connections because some of our connections were able to do double duty or triple duty based on the back end systems of the institution, we do have thousands of individual retrieval methods that have to run every night to get access to 14,000 to 15,000 total institutions.

Those have to be monitored and repaired and tweaked and so there's a big piece of our business which is watching ourselves to make sure that our connection to bank X is still strong and the data that's coming in is accurate and the normalization that we put on top of it is still being properly done.

**Peter:** I'll tell you, it sounds like an engineering nightmare (laughs).

**Lowell:** It is (laughs). It's a different kind of business, honestly. It's interesting especially when you're raising money or when growing the business, it looks very different under the hood than most technology companies out there because we're the hub that sits in-between thousands and thousands of different nodes that are individual institutions and apps. And so building a hub, an infrastructure hub, is a totally different set of skills than an app itself.

**Peter:** Right.

**Lowell:** So we don't think about customer funnels per se, we don't think as much about user experience with the exception of how people authenticate their accounts and making sure that they can identify institutions accurately. Really for us, we think about monitoring, maintenance, up time. It is more like a utility business in a lot of ways, for the KPI's that we have results too.

**Peter:** Right, right. And then before I move on, one other piece....because I'm on Mint pretty regularly, you know, I have my wealth management thing that actually aggregates as well and the thing that's frustrating is that the connections break sometimes. Why does that



happen....because I haven't changed my password or whatever, but somehow the connections break, why does that happen?

**Lowell:** Well, depending on how we're retrieving data from the institution, if they change their API or they change the service that provides data to us, and they usually do it without any notice, and so there's this catch up that we play having to, like I said before, monitor these connections and then make updates on the fly as the institutions change. So we're in this constant evolution mode of tracking changes as they happen at the institution and so a breakage or a temporary outage from an institution is the name of the game.

However, if we we're able to monitor institutions properly and quickly then that outage is so fast and so small that you don't notice it because we're able to re-establish connectivity. The worst possible outcome is when someone has to re-credential or re-authenticate a connection that hasn't actually changed and that's something that we're trying to avoid at all cost.

**Peter:** Right, right, yeah, got it. So let's move along to ...I'm curious about data security because that's got to be just a huge piece of what you're doing. I mean, we're recording this in late November and just found out about the Starwood data security breach, you know, 500 million people have had their data exposed. So tell us what's your approach to data security because people are giving you their log in information...

**Lowell:** Absolutely, our business is really unique from a security standpoint because we are asking for your sensitive information in order to go retrieve more sensitive information.

**Peter:** (laughs) Right.

**Lowell:** It's a big piece of our business. So security, I think a huge advantage to being built in 2013 through 2018 means that we're allowed to have security dyed-in-the-wool. It's so many systems out there added security on top of existing applications because they date back to pre-cloud era, I mean, some of the stuff...green screen still being used by a lot of large companies out there means that security is something that they have to inject rather than put into the foundation and build on top of it. So we've been very lucky that to be built when we were built.

So the very first field that put in our database was encrypted in the database itself, which was someone's user name and password. So we've had that as part of our DNA so we aren't searching to see where we need to push security on to our system. In fact, the system was built with security first as part of it's DNA.

I say that in light of the Starwood thing, the one thing that stood out to me reading the articles about it was why were they storing all this information together? When you think about information security, you think about the surface area of attack; where are the places that a bad actor has to go to get information and how do you make that as difficult as possible. And so it seems like it can be difficult to break into the Starwood system, but if someone goes in they have access to everything so data segregation is a key piece of security, not just encryption.



It actually is segregating the important data and tokenizing it so that a bad actor has to break into multiple places to get data to then piece together to then decrypt. So it means that it's very, very difficult for a single mistake or for a single attack to lead to any useful information. So I think it's worth thinking about the implications of an attack which is what type of data is released and is that data actionable and can the data be put together into identifying, okay, this is Lowell's credit card.

Lowell's credit card is significantly more dangerous than a credit card. If all you have is a credit card number, as dangerous as that is, that still isn't sufficient to do a lot of damage. Most of the attacks that seem to be the most dangerous are ones where there's been consolidated data and that's something that any company can and that Quovo does a lot of, to separate out pieces of data from each other.

**Peter:** Right, right, that makes perfect sense. Okay, so I want to dig into the lending offerings. You said you're getting quite a bit more into that side of the business and you already mentioned SoFi. What are you providing for lenders exactly?

**Lowell:** Lending is our fastest growing protocol, it's fun having a service like ours because our capabilities can be utilized by multiple verticals. We don't even know always how people are going to be using financial account data for interesting applications. What I like most about the lending space is that Quovo's data set and connected accounts technology can be used throughout the entire life of a loan. So we have multiple touch points with the borrower and the lender where we can provide value.

And so it begins with the assessment of credit and underwriting itself and so that risk evaluation process, rather than relying on a credit bureau score, adding cash flow data into the equation is something that some verticals like small business lending have been doing for a very long time, but being able to make that cash flow data available for other lending verticals is really exciting. We're seeing a lot of uptake from other people realizing that tracking spending patterns, income patterns and nuanced cash flow information is impossible if you make someone upload a statement and dig through the statements, but is really easy to do when you have a live link into somebody's bank accounts which we can provide.

And so then post underwriting the actual origination or funding piece for a number of loans can use our account verification so that ACH doesn't require something like a voided check is just set up directly with credentials and then obviously with an ongoing connectivity into the account, servicing is much more streamlined. And by servicing I don't just mean taking the money back from the borrower; I also mean the ongoing evaluation of risk and borrower attributes that most servicers today don't have the ability to do.

But I think it's a really exciting piece of the lending space that there is a moment every month if you're going to ACH money from someone's account, where you're re-underwriting them, right. Servicing is a re-underwriting business or re-risk assessment business every single month and so we can provide those exact same tools to help identify the attributes of a borrower that might



# LEND ACADEMY

be a signal towards the declining ability to pay, or the opposite, someone getting much more credit worthy in which case there are interesting things that a servicer lender can do with dynamic underwriting or dynamic servicing.

**Peter:** Interesting, so cash flow underwriting has been a hot topic in the consumer space. Small business lending has been going on a long, long time, but in the consumer space it's really only the last year or two that it's become kind of more top of mind. So I get that, it makes perfect sense, it's a great way for lenders to get a better picture on their customers' accounts.

So it's curious to me...it seems like, from what you're saying, you're really embedding yourself in the risk department or in the underwriting department of the lenders because you're not just providing technology, you said yourself, you're sort of helping assess the risk. I mean, I imagine it's different for different lenders, people are going to want to us just certain pieces. It sounds like you've got almost like an entire underwriting engine yourself, from what I'm reading between the lines, is that really what I'm saying? What are you saying?

**Lowell:** No, so we don't actually score or assess credit. We don't say that this person is likely to repay in the future, but what we do provide is a suite of data points and each of those data points can be a really valuable input, as you said, to bring cash flow-based or metadata that sits on top of cash flow trends into an existing underwriting model.

So it's as basic as saying, how many income streams are there in this person's account? We can help identify and split those income streams, saying how predictable they are, how regular they are and what the average amount is versus breaking out expenses by category and periodicity and so we can give three, four, five, ten, twenty data points that can then be dropped into an underwriting model.

So while we don't actually do credit assessment ourselves, we can give a company the two things that they need to enhance the model that they have, especially in a case of a dynamic loan modification, the mortgage space or a revolving credit line, the ability to say, huh, is Lowell still the same kind of person he was a year ago when we first underwrote him? Oh, yeah, look, the income has actually increased over time and expenses by category look actually much healthier, free cash flow month over month looks higher than what it was is the kind of stuff you can take from those data points.

We also have a predictive end points, a predictive algorithm that estimates future balances in DDA accounts based on historical data of a modified Monte-Carlo algorithm and mainly for servicing purposes, makes it easier to predict the likelihood of a payment clearing or not clearing and reduce the risk of NSF fees on the customer from a servicing standpoint.

**Peter:** Okay, so what about like fraudulent applications, what's the technology, I mean, how are you helping customers/lenders fight fraudulent applications. Tell us a little bit about that.

**Lowell:** So, that's a great other use of these key data points. So the key data points that we can retrieve from an account can be used for fraud protection purposes. So while we don't alert our



customers for what we think that an account is fraudulent, we are able to provide a number of API end points, both reactively and proactively to our clients for triggers such as insufficient account history. If someone links an account and the income only goes back three months and there's a single large deposit and fixed withdrawal, there's something fishy there, right. Being able to identify fake accounts or fraudulent accounts is patterns-based, so we can provide that data very, very quickly back to the lender that there's only been X made deposits or X made withdrawals from the account, which should be setting off red flags.

Also, we're able to retrieve in real-time data on account ownership and while it's never a perfect match between the name or names on an account and what someone may put on an application, it is helpful to know that an account that got linked doesn't appear to have any relationship to the information that the borrower has put onto an application.

**Peter:** Sure, okay. So I'm curious about...like obviously you've got a very sophisticated approach and a perfect fit for a lot of the online lenders who obviously, their systems are going to be, I imagine, easier to integrate with than some of the traditional banks, but, you know, look at ...there's more and more traditional banks that are having pure online offerings now, so are you finding that you're getting more demand these days from the traditional banking space?

**Lowell:** Yeah, so we're seeing, and this a newer development, to your point, that we're seeing over the past year a lot of lending divisions from large banks are more excited about digital offerings. I think that there's an acceptance that digital doesn't mean lightweight, digital means streamlined, so streamlined means more data can be collected faster from a customer. It's not about sacrificing fidelity or the integrity of the information you're getting from a borrower, you're actually able to get more because of tools like ours.

And so by moving to more digital practices and bringing in connected account technology, underwriters can get a lot more information than they would have through a traditional process and obviously, have a much better customer experience. And when you think about...I just went through a very, very long mortgage process which was heavily paper-based. I had to re-submit new statements every time the closing dates slipped over a month end. If the underwriter had been using connected account technology, Quovo could have just gone in and grab new data about the account and even grab the statement, if the statement was that necessary.

We have found that as part of this evolution and this digital migration there is still comfort in being able to have statements and being able to have some of the older data points that may not be as relevant today, but still fit into the work flows that underwriting systems are used to having so the ability to retrieve electronic versions of statements and make those available, even just for audit purposes is a valuable piece of the puzzle.

**Peter:** Right. Okay, I want to switch gears a bit and talk internationally. I know that you have clients beyond the US border. I just read a couple of weeks ago that you have joined the UK's open banking regime, so tell us a little bit about that and also this is a very ...what you're talking about, open banking is really what....for open banking to work it needs companies like Quovo,



otherwise, it's not going to happen. So why don't you tell us about the new development that happened earlier this month in the UK.

**Lowell:** I believe that Quovo is the first aggregator that's been approved as an AISP, Account Information Service Provider, so we are registered with the FCA in Great Britain to be able to access the open banking API's that are mandated now across Europe as part of PSD 2 and the UK open banking directive. That sounds great (Peter laughs), but the reality....it sounds great, right, (laughs), it's instantaneous access to anyone's banking data properly authenticated.

In reality, the process, as anyone knows who has been following PSD 2 and open banking, has been excruciatingly slow for the banks to build and maintain these API's so only a small number of banks have actually managed to get their API's built and their reliability is still a little bit suspect because building an API is hard. Trust me, I know, that's what we do, but it is really exciting to have access to the API's that exist and I think as the first aggregator that's now accepted into the ecosystem there, we can be an advocate for improving the speed of development of new API's because I would love to move to a fully [inaudible] authentication process and a fully API-based process.

It is unlikely to happen here in the US because it's very unlikely that there's going to be a top down regulatory mandate for open banking, but I think that Europe is creating a great model. My fear is that if the pace doesn't speed up there, there's going to be a lot of frustration setting in because the long tail of institutions, which really are critical both here and abroad, haven't gotten there yet in terms of API development so hopefully we can facilitate that

**Peter:** Right, we just came back from our LendIt Europe event just a few days ago and there was certainly a lot of talk about that. We had an open banking panel and open banking was talked about throughout the event. It's been a year almost and people are a bit disappointed at the pace that's happening, but I think there was a lot of enthusiasm among the LendIt community anyway, about the fact that it is going to happen, there are small steps being made and there's commitment at the government levels. They're going to see this through, but, as you say, it's going slow. I'd love to see something similar in the US, but that's pretty unlikely, at least in the short to medium term.

**Lowell:** Yeah, I've been very happy in the US that the innovation that's exploding in the fintech space has created a customer demand for access to the data. Here in the States, you see customers demanding access to Venmo or Robinhood or Betterment and SoFi and so there's pressure that's been put bottoms up onto the banks to build these API's.

**Peter:** Right.

**Lowell:** So the large banks are making good headway on these API's granted not as a single unified consortium, but in some ways that might mean it will be done faster because they're doing it with their own resources, building specs that they themselves can maintain. I'm actually reasonably bullish on the progress that's been made this year in the US. I am concerned though





that the long tail problem is even worst here than it is in Europe so we do need a solution to help the community banks, the credit unions and the small regional institutions.

**Peter:** Right, right, that makes sense. So then I also want to talk about GDPR which....we all went through this process early this year getting lots and lots of emails and having to approve everything. But the principles of, you know, data privacy and data protection, I mean.... they're only going to become more important and we don't really have GDPR in the US right now. But, during my research for this interview, I came across the Secure Open Data Access framework that you are co-founder of so tell us a little bit about that and how it relates to GDPR.

**Lowell:** Well it's not quite as onerous as GDPR and is about a smaller data set which is the financial account data set, but aggregation and connected account services like ours have always relied on a consumer consent model, right, because we can only make a link if you have affirmatively consented to share credentials or other authentication data.

**Peter:** Sure:

**Lowell:** So all of our businesses have kind of grown up with a customer consent first process and so GDPR is very similar in a lot of ways. So it's formalized, I guess what's been a product necessity for our industry which is you need to have the consumer know what they're doing, or else you can't link an account. And so what we're trying to do is take that consumer first approach which we've always had to some extent, just to make our product work, and formalize it a bit and try and elevate it to increase consumer control because among the different constituents in the ecosystem which is us, the aggregators, the apps, the FI's, the regulators and the consumers themselves, the one thing that we can all agree on is that we want to put the customer first and putting controls around the customers to let them choose when data is retrieved, how it was retrieved and for what purpose is beneficial for everybody. More transparency and consumer control, I think, is the easiest way to get around what otherwise might be possible friction between different constituents.

**Peter:** Right, makes sense. We're running out of time, but, I want to get a couple more questions in. Can you give us a sense of the scale you're at today, I mean, like as far as number of employees, number of clients you have or just something to give us some sense of where you're at.

**Lowell:** Sure, so we have about a hundred employees, we have several hundred customers that represent tens of thousands of agents and advisors out there and we have nearly 20 million consumer accounts on the platform.

**Peter:** Okay, so when you look at the...obviously, you're not the only company doing this so how do you view the competitive landscape and what makes you guys different?

**Lowell:** Well, it's interesting because aggregation isn't a new product. There was a generation of aggregators built in the late 90's/early 2000's that even pre-date Mint by a number of years. It was only in recent years that both new fintech apps and large enterprises have decided to take



advantage of our services, so there is a batch of companies that do similar services to ours that have been around for a while.

But, I think Quovo is quite different because we are new, our technology stack is brand new so scale isn't something that adds expense, scale actually provides advantages for us. As our data set grows, we're able to normalize with machine learning more effectively and so we're excited for every new account to go under the system because it doesn't change our margins at all. I think that's one key differentiator.

Also, we've built our connections to banks recently so we're using the newest technology and we have the most robust connections as a result. And I think we're also a little bit different because we are really dedicated to a single source of revenue here which is services that help the end consumer.

We never re-sell data to third parties, we only build services and products here that ends up helping the end customer, which isn't the same business model that everyone in our space has. Obviously, there's a "value" when you have a huge amount of data sorted together, but our decision and our philosophical decision has been to use that data for the benefit of the consumer that has opted to share it with us. I think that's the right way to build the business and hopefully, will be the right way to build a successful business.

**Peter:** Okay, so on that, what is your vision then for the future of Quovo?

**Lowell:** That's a good question. (laughs) It changes month to month because I can't predict half of the ways that our services had been used today. What's really exciting for me is they continue towards all of the expansion we've seen from our business that new products, new technologies are using connected accounts of financial account data to benefit the customer in ways that I hadn't predicted yet.

So payments, municipal finance, new lending products...these are all brand new verticals for us to explore so what I'm excited about is taking this core capability that we have. You have to be crazy to build from scratch (Peter laughs) which is connecting to thousands to thousands of institutions and seeing what the world does with it. How can we make our tool kit easy to use and beneficial, regardless of your business model and then have the next great developer, be that two guys and a dog in a garage, or actually be it an entrepreneurship team as a major institution using our tools to build something fantastic.

**Peter:** Right. On that note, we'll have to leave it there. I really appreciate your coming on the show today, Lowell.

**Lowell:** Yeah, absolutely, thanks for having me.

**Peter:** Okay, see you.

**Lowell:** Take care.



# LEND ACADEMY

**Peter:** You know, I think we're moving to a world or perhaps we're even there already, where consumers are demanding control over their own data, particularly their sensitive financial data. But at the same time, they want to connect with other institutions seamlessly, those institutions that they give permission to. They want to have a good seamless experience, so to make that happen you have to have companies like Quovo who are building the pipes in the background to connect and aggregate all of these data.

Companies like Quovo are only going to become more important as we move to a more and more digital world where we're not going to be doing as much local branch banking. We're going to be doing more and more on our phones and so the security, the privacy, the access, the aggregation...all of these issues are going to become more and more critical as time goes on and it's great that companies like Quovo are addressing this head on.

Anyway on that note, I'll sign off. I very much appreciate your listening and I'll catch you next time. Bye.

Today's show was sponsored by LendIt Fintech USA 2019, the world's leading event in financial services innovation. It's coming up on April 8th thru 9th 2019, at Moscone West in San Francisco. Registration is now open and we're also taking speaker applications. You can find out more by going to [lendit.com/usa](http://lendit.com/usa)

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