

Discovery Comes of Age

Paul Martino

Discovery Expert Series is a series of interviews by John Furier, the founder & former CEO of PodTech Network, Inc. John has a history with Internet companies serving as Vice President of the Product Group and Strategic Development for RealNames, an Internet search and naming company, and founder and CEO of Labrador Software, a paid keyword search and navigation company. John also has experience at large technology companies, having spent nine years at Hewlett-Packard in various technical, marketing, and sales roles.

Discovery has moved from a simple recommendation engine to a whole new way of finding products and information online. In this podcast, Aggregate Knowledge CEO Paul Martino, a pioneer in Discovery, discusses "What is Discovery?" He'll address the relationship of Discovery to search, personalization, behavioral targeting, and recommendation engines.

Paul Martino is the CEO and cofounder of Aggregate Knowledge, which is the fourth company that he has founded over his 20 year technology career. Martino was previously the CTO and founder of Tribe Network, which was acquired by Cisco. In addition to being a serial entrepreneur, he has held senior business development positions at Intertrust and SkyPilot. The highly scalable architecture of Pique is based on the research work Martino did on massively parallel graph algorithms while a Ph.D. candidate at Princeton University. Paul also holds a B.S. in Computer Science from Lehigh University and an M.S. in Computer Science from Princeton.

[Edited from original transcript]

We're here in Palo Alto. This is John Furier for the Discovery series with Paul Martino from Aggregate Knowledge, CEO, cofounder. Welcome to the Podcast.

John, thank you. Appreciate being here.

Paul, you're the cofounder and CEO of Aggregate Knowledge, which is a company doing great stuff in data networking, Web commerce – just overall great stuff in today's Web 2.0 age. Before we get into some of the discovery conversations, talk about yourself, your background, why you started Aggregate Knowledge, some of the problems you saw early on, and some of the things you're solving.

Great. Well, thanks John. So by training, I'm a technical guy at heart. I'm a Ph.D. dropout, massively parallel graph systems, and what that really means is that I've worked for the past 15, 20 years now on problems that involve huge amounts of data.

Just prior to forming Aggregate Knowledge, Chris Law and I, who's my cofounder of this company, started Tribe.net with Val Syne and Mark Pincus. And when we were with Tribe about five years ago, we realized there was this really interesting problem. If you're on a social network and you've got thousands of friends and hundreds of millions of profiles and billions of photos, how in the world do you find the stuff that you're looking for?

We said, well, why don't we use the social graph? Why don't we use a graph of what you've done? Why don't we take a look at all the implicit data that's getting pumped out about social networks to come up with a way to find stuff? And so after some experimentation at Tribe, we realized that this would be a hell of a business to do as a Web service for everyone.

So instead of having just your data inside of your own silo in a social network, why don't we flip the model on its head and take a Web service for discovery to all the major retailers, all the major media companies, all the major social networks, and let's get as much data as possible because the person with the most data is going to do a hell of a job predicting other things you're going to be interested in.

We're sitting here in downtown Palo Alto, right out on University Avenue next to the Apple store, just having a nice chat on a beautiful sunny afternoon, but all the rage is Facebook, and they're right down the street. Social networking... you mentioned social graph... That's the hot topic everyone's talking about. Microsoft is putting in huge money, \$15 billion valuated for startup. Tribe was a startup that was really pioneering social networking, social media, before it was even called that. And so now, that's hitting mainstream. So talk about how a guy who was in social networking is in this discovery Web service, cutting edge e-commerce, consumer-like technology. Talk about how you got there.

That's exactly the right question. And while Tribe was never as large or as successful as Facebook or MySpace, we certainly learned a lot of very important lessons there. And you know, when we were out pitching Tribe - it was at the end of '02, beginning of '03, and do you remember what Palo Alto was like at the end of '02 beginning of '03? - a lot of people on the street, and a lot of people on Sand Hill Road when we pitched the company literally told us, "You know guys don't you know it's over?" Well, we're kind-of looking at each other going, "No. I think the social networking thing is going to be kind-of big." And while Tribe didn't ever get to what I think could have been its full potential, companies like Facebook and MySpace are demonstrating that social networking is not only here to stay, it's actually a powerhouse force. At that valuation, Facebook is like the fifth largest Internet property right now.

And so those insights we learned at Tribe, things about social graphs, things about what works and don't work - because I'll tell you, there are a lot of things that Facebook is doing that aren't going to work very well in terms of targeting. If you just look at what's in people's profiles and think that's a way to target content, then you're going to be sorely mistaken. Because how often, John, have you updated your Facebook profile? You might have updated it the first time you logged in. So if my whole targeting system is based on the currency inside of your current profile that might not work so well.

So we learned a lot of important lessons three years ago. When we formed Aggregate Knowledge we said, "Hey look, what you do is way more important than what you say you're gonna do. Who you interact with is way more important than who you say your friend is."

And those are the insights that Aggregate Knowledge is allowed to tap into, and we think our targeting is going to be superior to any of the kinds of targeting that a social network can do alone.

Back when Tribe was around, Web 2.0 wasn't around then. It became really about a year later or so when everyone was talking about Web 2.0. And really, no one can define it still. But really Web 2.0 is the Web, and it's the Web evolving. And so now Web 2.0 is becoming a very serious concept that has a lot of companies being started behind it, big enterprises, big consumer companies are getting into this new Web or modern Web as it's called by some of the more cutting edge folks. How is that Web 2.0 social networking, the new data is the asset type thing, affecting real companies?

It's exactly the question we were asked five years ago. And five years ago, I don't think we could answer it, but now we can answer the question very definitively. Web 2.0 is about the Web as a platform. And the person with the most data is gonna win. The person with the most data is gonna do the best targeting. The person with the most data and scale is going to put the right product in front of you. The person with the most data and scale is going to put the right content in front of you. And that's why we created this concept of Discovery. Discovery on the Web is a real problem right now. When you have hundreds of millions of people on social networks, tens of billions of photos, hundreds of thousands of products from a single individual retailer, how in the world do you find the stuff you're looking for? Where do you start? And if the idea is you have to always start by knowing what you're looking for and typing in key words to a search engine, that's only one way to do it. When you're at home and you're looking for content on the television, you just flip through the channels, right? You don't break out the keyboard and start typing keywords in.

So there's this other way to find stuff that we call discovery, and discovery is fundamentally related to Web 2.0 because Web 2.0 is about the whole Web being a platform and letting us index it, find it, and do more than just search it.

Talk about when you started Aggregate Knowledge. You've been around for about two years, talk about where you started it, some of the problems you were solving and where it is today, how that relates to what is discovery.

Sure. So let me start a little bit with company background. Company is about two and a half years old now. We've raise \$25 million over two rounds. Kleiner Perkins, Dag Ventures, and First Round Capital are our three largest investors. Randy Komisar from Kleiner is on the board. We started the company with a very simple premise, that the way you're searching for stuff on the Web is broken. It's not good enough.

Search is great if you know what you're looking for. Search is great if you can type the magic keywords into a Web site. But how do you find that stuff that you know is out there when you don't know those magic keywords? It's like when you go to a mall, and you're shopping, and you look over and you go, "Hey, that blue dress over there's pretty close. Why don't you show me more like that?"

Well, who's doing more like that? You have to type in blue, Calvin Klein, dress -

It's navigation.

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Right. That's exactly right. Discovery is about navigation. Search is about a direct metaphor where I have to know what I'm looking for. But discovery is different. Discovery is serendipitous; surprise me and show me something I didn't know was out there.

It happens in the real world all the time. Look, we're sitting on University Avenue here in Palo Alto. We're gonna order at this restaurant in a few minutes. I might look over at the next table and say, "Hey, look. What she ordered looks pretty good. Why don't I get one of them too?"

Now that happens in the offline world all the time. But why doesn't that happen more in the online world? How come there isn't more of that magical, surprising result online?

Talk about navigation. Because Google has really evolved as being a huge search player. They have a huge brand awareness. Google is a common brand now amongst people. They've earned that with users because they provided some search and navigation in the sense that users can trust them. How does navigation in the discovery world, if I'm a big Website or I'm a company - obviously the user behavior and the navigation benefit creates brand loyalty. It creates this kind of magic that Google and search engines have evolved. And you mentioned search is one element of it, but navigation - talk about that component, and how you guys talk about that because it's not so much search that you're doing.

Let me answer that with just a good example. So we have a great (customer) called Delightful Deliveries. They do gift baskets, and they do flowers, and they do chocolates, and they do the kind of stuff that when it's Father's Day, you'd want to send to Dad. Or on Mother's Day, you'd send to Mom.

So anyway, I tried it out. They've been working with us for the past several months. It was Father's Day in June. I went on the site... I'm looking... I'm like, Dad doesn't really want a gift basket. And I get to the bottom of the list of discovery elements powered by Aggregate Knowledge, and there's this Beer of the Month club.

I'm like, "Hey. That's pretty cool." Beer of the Month club? That's an ideal Father's Day gift. But now let's take a look at the way have to do it on the Web right now. You've got to type in "Father's Day gifts." And what are you going get when you type "Father's Day gifts?"

A big long list, a bunch of ads, and all kinds of stuff.

You're not going to get what you want. But on Delightful Deliveries, when I'm navigating around using discovery as a primary form of navigation, I found that magic result. And we use the following tagline at our company a lot: Discovery. You know it when you see it.

And that Delightful Deliveries example is a perfect example of it because you know, I saw the Beer of the Month club, I said, "You know, that is exactly it."

So that's the magic discovery concept that's really providing some navigation. It's kind of targeted for the user, and you provide that based upon some data, right?

That's right. So what we've built under the hood is a massive data center operation that can deal with hundreds of billions of simultaneous data points. User 27 looked at item 83 at 2:00. This item has this metadata associated with it. It was bought in conjunction with that product a bunch. This piece of content is related to it. We're able to, in real time, discern the relationships between people, products, content, and services immediately.

We do this for breaking news on the Washington Post, one of the most difficult possible use cases. We're able to look at the 10,000 users who read a breaking news store in the first two seconds and go, "What else did they do? How can those 10,000 users become editors for everyone else who follows them?"

That's what discovery is all about. It's tapping into that aggregate knowledge or that collective wisdom so that you can benefit by all those who have gone before you.

Aggregate Knowledge is providing benefits to this navigation for users. And you have clients. And you guys started out obviously as a small start up, cofounded with an idea. You've raised some capital from some of the best venture capitalists in Silicon Valley. Where are you today? What kind of customers do you have? What goes on in the discoveries of the world, and through your eyes, and through your data center?

Right. So we power about a billion discoveries every month. Our network has a reach of over 60 million unique users every month. And since the launch of our new offering, which we called the Pique Network, P-I-Q-U-E, the new Pique Network is really where the exciting and truly different offering comes from.

Because to some extent, I get asked this question a lot, John. They go, "Well, are you guys a recommendation vendor?" Well sure. We do recommendations. That's one of the things we do. But recommendations in general have been this very siloed approach to the world where I'll recommend more books for you on Amazon, or I'll recommend more movies for you on Netflix.

Let me give you some examples of what we can do with our Pique Discovery Network. With Pique, I can say, "People who read this article on a news site in music ended up buying this CD from a CD vendor I also have in inventory." People who were interested in this article, went to this concert, and oh, by the way, here's similar tickets to that conference.

So since we have ticket vendors and CD vendors and news companies and information portals in our network, we're able to figure out what those cross site discoveries look like, and that's what the magic of Pique is all about. Pique is delighting you across the entire network as opposed to just more books for more books or more movies for more movies.

You are a service for big ecommerce, consumer-oriented Websites. You work with those guys, provide a service to them as a core product. Additionally, you're saying, that this Pique Network is an additional component of Aggregate Knowledge that takes that collective knowledge of navigation data, and you provide that across the different companies anonymously or aggregately, not from a privacy perspective, to offer more robust choices. Is that what you're saying?

That's exactly right. And John, one thing to add, is our customers aren't just e-commerce companies. They are e-commerce companies. They're retail companies. They're media companies. They're information portals. So anybody who has a whole bunch of data - I don't care if you're an information portal like Health Central Network. I don't care if you're a major retailer like an Overstock, or if you're a major news site like the Washington Post. All of these sites have the problem of getting more of their inventory displayed. They all have the problem of getting more of their content discovered on their own site and across the entire Pique network.

The service is a no-brainer for big companies to get a better user experience. But how about some of the privacy issues?

Well, we've taken a very different approach than other companies in this space. We are not trying to figure out personally identifiable information about you. I'm not trying to say, "I know John. John's 40 years old. He lives in Palo Alto." I'm not getting deep into what I would call the privacy black hole.

We're taking a look at aggregate, anonymous behavior across tens of millions of users simultaneously. So our database has things like user 27 looked at item 83 at 2:00. So I don't know who the user is, and I don't necessarily have deep understanding of what the item is that they looked at, but I'm able to do that correlation calculation anonymously and in aggregate.

So you're reversing the vector, as they say. Instead of focusing on the user behavior, what they did from a privacy perspective, you're looking at the content selection and mapping an algorithm to that collective behavior. Me, and people like me, did the same thing. Therefore, they must have these characteristics. You're making some kind of assumptions there, right?

That's right. This anonymous cookie sort of looked like that anonymous cookie. And this product sort of looked like that other product. We're making those kinds of inferences as opposed to saying, "Someone who's 23 and filled this out on their profile is going to like these six products." We not only think that is potentially a problem from a privacy perspective, in our experience, that kind of targeting is not near as good as our kind of targeting, done anonymously and in aggregate.

Well, we're doing this as part of your discovery Podcast series. Talk about why this is important for Aggregate Knowledge. We talked about the founder of Firefly, the author of Paradox of Choice. And a lot of these gurus are talking about these things in terms of this solves a big problem. Talk about this Podcast series and why you're doing this.

Some of the first people you interviewed for the discovery Podcast series, Yezdi (Lashkari), who started Firefly; John Riedl, who started Net Perceptions, Barry (Schwartz) who wrote Paradox of Choice. These were three of the first people I asked in the discovery series for you to interview, and there was a very important reason.

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Discovery is a new thing built on top of a lot of experience from other people. We are not the first company to ever do a recommendation engine, but we are the first company to do a discovery service. So why don't we get guys like that, who are advisors to our company, to talk a bit about the history. What did we learn?

When I was at Firefly, what did I learn? When I was at Net Perceptions, what did I learn? And oh by the way, how are those insights and inferences in ten years of experience going to get used to help Aggregate Knowledge build the best possible discovery service, delighting as many end users as possible?

Now you're going to see a lot more in this discovery series as well. You're going to hear interviews from our customers. You're going to hear interviews from our partner companies. You're going to hear interviews from press and analysts as well.

We've started the first series with this interview and three of the say luminaries of the last ten years of discovery.

Your business is growing rapidly, and you're changing. I saw an interesting phrase on your latest collateral, multi-channel discovery. Can you tell me what that means and who that benefits?

Multi-channel discovery is something we're very excited about, and you're going to hear a lot more of it, in particular as we launch the peak offering over these next two weeks. Multi-channel discovery is the following.

If I can provide magical delight to you on a Web site in a discovery window, how come I can't do that in email? How come I can't do that in an RSS feed? How come I can't do that for your affiliate banners or across the whole Internet? Why can't I do it on a mobile phone, on a point of sale device or a set top box?

And that's exactly what we're doing. We now have Pique Email as well as Pique Affiliate, and Pique Multi-Site are three of the offerings that we've announced over the last two weeks. In addition, later in '08, you're going to see us launch Pique Point of Sale. You're going to see us launch Pique Mobile and Pique Set-Top Box. We're undergoing one of our first trials in those areas.

That's what multi-channel discovery is about. Because if I know about what the behaviors are online, why don't I tap onto that online behavior in my store to point of sale device? If I know about behaviors online, why don't I tap into that on my mobile phone? And think about mobile phones, John. How hard is it to navigate on a mobile phone?

Discovery is an ideal navigation metaphor, because when you're buying those '80s ring tones from your favorite store, you don't want to have to thumb in the name of the next band.

I just bought Dexys Midnight Runner, so you're going to know I'm probably also going to like Soft Cell, Tainted Love, right? That's the kind of thing that we know at Aggregate Knowledge, and instead of having it type in, having "here's three more options for you" and being able to click the up and down button until you get to the one you want, that's a nice way to navigate, and in particular, on a set top box or in a mobile device.

When I talk to a lot of the top marketers out there, they talk about Web presence as one element. But what you're really talking about is digital. Most of the marketing strategies online are digital-based, which includes Web, mobile, multi-channels. That's what you're referring to, right?

That's right. Multi-channel in the traditional retail sense in my brick and mortar store – Multi-channel in the traditional sense can mean what a retailer means. I want to do this in my store, and I want to do it online. In addition to that, it might mean I want to do it in email and affiliates in set-top boxes and point of sale devices.

And it's not just for a retailer. We have plenty of media clients who send e-mails all the time, and they're interested in adding the magic of discovery to their e-mail offerings. That's what multi-channel is all about. I don't care what the distribution mechanism is for the discovery; I want to get it as broad and wide as possible.

You're like a high-end Google AdSense for content.

Yeah. That's a great phrase. We're going to start using that phrase a lot in some of our newer collateral. Think about it. What does AdSense do? No matter where you are on a site, it looks at what the site is about and it puts an ad up there.

It's not very complex. It's really contextually based on keyword and it's storing up some links. But what you're doing is really taking knowledge around affinity groups and targeting content that's transactional. People want to do business. Web 2.0's not about your experience so much, but it's all about what the utility of the user is.

That's exactly right. So by saying that we're AdSense for content, we're talking about a very different user proposition. So if I'm reading about Bruce Hornsby, and he's one of my favorite artists, I want to know everything about him. I want tickets to his concert. I want memorabilia from the band. I want any and everything I can get about that person.

I don't necessarily want an ad to go to a site to find it. Why don't you syndicate and put the content in front of me that's going to delight and make me enjoy. And that's what saying AdSense for content is about. Don't put an ad in a discovery window. Put another piece of content. Put another offer.

Think about it. The other 10,000 people who love the same artist as you who also read this article are giving you the shortcut to the other thing you probably care about. That's a time-saver for you, and it's one of the aspects of discovery.

Reducing steps, saving time is the Holy Grail for user loyalty and success.

And it's one of the metrics that discovery drives. One of the things we definitely drive is end-user satisfaction. One of the things that we drive – things like repeat visits.

Well, while you're on the topic, let's talk about metrics because anyone who talks about the Web these days knows everything is measurable and the data is collected. You're doing some great stuff on aggregated data. What metrics are you driving? Because that's at the end of the day the big discussion when it comes down to people adopting these kinds of programs.

Right. We drive a lot of very different measures for a lot of very different companies. We do everything like increase someone's SEO page rank by having high-quality, related links. So that's an SEO rank. We do things like dollars per person over a month. We do things like engagement level, page use per session, time spent on site. So to some extent, Aggregate Knowledge can move the business metric you care about.

And if it is page use per session, or repeat visits, or more customer loyalty or make my site a place that someone comes back to every day, you tell us what measure you want to move. We'll help you move that measure by putting in the right kind of discovery service.

So it's different than how people do it today. They throw stuff all over the wall, so to speak, and then tell what happened. You ask your customers what metrics will be successful for their business. And then you tweak your little algorithms and your data center stuff to over simplify it to kind of drive their success. Is that right?

That's exactly right, John. That's exactly what we do.

Talk about some of the nuts and bolts. Most approaches, like the old Web 1.0 days are siloed, non-networked. And some of your competitors out there are talking about different approaches. What do you do different?

Well, what we're doing is we're taking this complete network play strategy. We've implemented multiple different classes of algorithms at the bottom. So yeah, we have traditional collaborative filtering. Yeah, we have traditional personalization, but we've also got things like Bayesian inference or machine learning. We've also got proprietary algorithms in-house.

So we have a whole layer of dozens of different algorithm classes. And it turns out that certain algorithm classes drive different measures. So if I want to use just page view per sessions, I might use a different algorithm class than if I want to get revenue per session.

So by taking this approach, John, we do the following thing. We know which algorithms and classes of algorithms work best for which measure you want to move. And importantly, we can blend those algorithms for combined results. Maybe on a front page of a Website I want to do recommended for you. But maybe on an item page, I want to do people who bought this bought that. Or maybe I want to do a combination of the two in an email, so it's partly personalized and partly based on a Bayesian inference.

A lot of our competitors love to talk about their one unique trick. I am the next generation Bayesian system. I am a next generation collaborative filter. We've taken this opposite approach. We've said, "I don't care which algorithms you've got. I've got as many algorithms as anybody." Figuring out which algorithm works best in which class for which user, and oh, by the way the algorithm you want to use on the weekend is different than the algorithm that we want to use at 9:00 a.m. on a Monday morning...

It's real-time because you can tweak it.

Exactly. And that leads to a very, very different approach than other people.

Well, let's talk about something that seems important to your customers, and that's the whole scale issue. Most big companies that really benefit from this are worried or used to be worried with small start ups. You're not small anymore; you're growing like crazy. You have some scale that you're developing. How did you get these clients? How did you get them to adopt Aggregate Knowledge, and as you wrote, expanding with the Pique network, how do you get them to buy into this? What did you do, and what are you doing to get these big marketers who spend a lot of money and are concerned about delivering?

It really starts with first principles. I'm a performance computing guy at heart. My chief technical officer was an architect at Salesforce.com. The guy who's the head of our performance engineering built AOL's content distribution network. We hired people from day-one who were scale, hard-core players. Because if you're going to walk in and have your first customer be on the front page of one of the biggest news sites in the world, you can't have training wheels on. So we had to build the company day-one to be at scale.

So since the launch of our company, we've now been in service for almost two years, our up time is close to four nines continuously. Through Christmas last year, our up time exceeded that of all of our retail customers. Think about this. We're the little startup company out of Silicon Valley last Christmas, and our uptime was better than any of the major retailers that we had on an hour basis.

That took a lot of preplanning and thinking, and it really is one of those things that differentiates us from anyone else who is in the space. Other people who have taken the siloed approach, let me start small on a little site, they're never going to be able to have the kind of scale that we have.

And the implementation; talk about the approach you took there. Because I talked to the other guys that you worked with. They deploy Java script, it's light weight and on the edge. Talk about your implementation approach with your customers and how this relates to this whole Web 2.0 architecture going on now where Google's a big data center in the sky.

We had the following goal in mind. If you're the scale player, and you want to provide a service like Pique, and you want to be able to do AdSense for content, you'd better be able to cut and paste a couple lines of JavaScript and get the magic discovery. And that's what we've been able to deliver on. So whether you're a retailer, whether you're a content provider, if you can cut and paste a couple lines of Java script and do a header or footer, you can get our service up and going. Now, then you'll want to tune it, and you'll want to pick I want this visual treatment or that visual treatment the same way you do in AdSense. But getting you up and running, we can do literally in as little as a few hours.

You're a consumer, private-labeled AdSense for your customer base. Because they're the search engine; they're the content.

That's right. And the big difference, though, is we're doing this for content instead of for ads. And that's another question I get. A lot of people say, "Well, look, Kleiner Perkins is one of your lead investors. Doesn't John Doerr sit on the board of Google? What was that conversation like when you were going to take money?" And he asked that question in our Series A finance. He said, "Look, Paul. Tell me about this. What do you think?" And what we said was the following, and I think it really is completely true now two years later: Google's great at search. Google is the master of search. Absolutely the best company. There's this other metaphor called discovery that Google may one day decide to be best at, but right now, we're going to try to be the leader in Discovery.

The game plan was the following: become the leader in discovery, which is this other way to find stuff. And in the future, the big bet of Aggregate Knowledge is that just as there's a search budget inside of major companies, there's going to be a Discovery budget inside of major companies.

And that's why John Doerr said, "You know, it's no problem investing in –"

Digital discovery. Multi-channel discovery.

Exactly. Because these two things are complimentary. They're not taking away from each other. It's not like I'm trying to take an incremental dollar from Google. Google's getting its search dollars. I'm growing the pie by having a discovery service in addition to a search service.

I think what Google did that was great was they really focused on user experience. They nailed the search. They tweaked their search engine. They said when someone's looking for some high-quality result, they did it. Then they got into ads. So in a way, they really nailed the user discovery or navigation or search because search and navigation are kind of the same thing.

They definitely nailed the search part of it. And they started from first principles around the user.

Well search was navigation.

That's right. And search today is still one of the only navigation metaphors available, and that's why Aggregate Knowledge is getting such traction. Since it [search] one of the only navigation metaphors, and it leaves a lot of the magic out because you got to know what you're looking for. Discovery is starting to come on with as much force as it is.

You mentioned online and offline. Because obviously with big brands, you're working with these ecommerce sites. People know them. That's why they shop there or they go to the sites and trust them. You're providing, in essence, that kind of trust navigation to the users. Talk about those guys in terms of how they view discovery. Are they looking at this and say, "Hey, we want this magic discovery feature" or is it simply a meat-and-potatoes conversation around, "We want to drive more business" or both?

That's a very interesting question. A lot of the times, we'll walk in the door with a straight-up ROI story. And we'll describe the kinds of results we've had around lifting revenues or pages per session. And inevitably, and with almost every customer we've ever worked with, John, the following happens. The phone will one day ring, and it will be the CEO or it will be the VP of products, he'll go, "You know what? My site is easier to use because of you guys. Thank God you're there." Now, that's the kind of thing that you can't necessarily show the ROI metric on immediately because really it's about the lifetime value of the users, and it takes a long time to see what the lifetime value increase is.

But that said, we get a lot of CEOs, a lot of VPs of products who go, "You know, the site is easier to use. I'm finding more products. I'm seeing more of the catalog." So all of those discovery magic a-ha softer moments, as opposed to just dollars and cents, are getting delivered in addition to the dollars and cents.

That's why we've continued to have great relationships with our customers, because the magic of discovery, the pique your interest piece of it happens to them as a consumer of their own site.

So what's next for you guys? You got your core platform, you built for scale. The Aggregate Knowledge data aggregation piece, The Pique Network – talk a little bit more about the Pique and what's after that.

So the big Pique launch over the next two weeks. We're here right at the end of October, over the next two weeks, and the first two weeks of November when we do a big push around Pique making sure that the consumer understands the magic of discovery in addition to our customers, the major retailers, and brands etcetera.

Discovery everywhere is what comes next. I alluded to it a little bit, point of sale device, mobile phones, set-top boxes. Getting that magic of discovery interleaved in every possible channel, that's what the big next play is for us. You're going hear a lot more about discovery everywhere next year.

So how do I – if I'm a user, I'm Joe Sixpack out there. How do I see what you're doing?

The best way is to go to some of our customer sites, and I'll have a list of them available in addition to this Podcast. Go to Delightful Deliveries, go to the Washington Post. You'll see some great stuff on those sites. In addition to some of those customers, you're going to see a series of announcements of other sites to go take a look at to look at Pique. We'll attach that list at the end of this Podcast, John.

Discovery Comes of Age

Paul Martino

Discovery
Expert
Series

What is going to be different five years from now in your mind? Putting Aggregate Knowledge aside, looking forward, in the landscape that you're in, Web 2.0, modern Web, Web 3.0, social graphs, social networks, global Internet. What's different in five years?

The acceleration of data available online. I don't think people yet understand what it means. There are sites that are generating content at increasingly fast rates of what they did the day before. When you have that much content online, you're going to need some really amazing things around navigation, around monetization. It is going to be information overload like no one has ever seen before.

So the companies over the next five years that can help the end user figure out how to navigate are going to be extremely important, extremely valuable. And in terms of Silicon Valley, we're going through a great period right here. Facebook has a \$15 billion valuation last week. Good to be in Silicon Valley.

So I think there's a natural cycle. About every seven years we go through a boom and bust cycle here. I think maybe we'll peak here in about three years. I don't think it'll be as bad as 2000 and 2001 in say 2011, but it'll slow down a little bit.

And the next big thing that'll happen, it'll be Web 4.0 seven years from now.

Talk about a trend I'm seeing out there around globalization. I mean, obviously the data you're getting now is not just localized, it's globalized. How are you seeing that impact?

A lot of our customers, we've never met. We've never met them in person. It's kind of amazing. It's one of the most magical things about our company. People can opt into the site. We can do a phone call or two. We can sign an NDA. And then afterwards, we meet and talk about how cool it was to work together.

That model is what you need to be nimble in a global world. You need to be able to have limited feet on the street but have a global presence. Having a sales force in every country is not the way to do it, and I think that having this low-touch, easy deployment, that's key to having a global footprint.

We're here. Discovery series. Paul Martino. Thanks so much for the chat. Looking forward to chatting further. Congratulations on all your success and can't wait to see the Pique stuff and see how that evolves.

Thank you, John, for the interview. I appreciate it.

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