

Cobwebs Technologies - Former EVP, DoD Portfolio at Babel Street

Interview conducted on May 02, 2022

Former EVP, DoD Portfolio at Babel Street, retiring on Feb 2022. Expert can speak to the open source intelligence space, including Cobwebs.

Former EVP, DoD Portfolio at Babel Street, retiring on Feb 2022. The expert was responsible for leading the international department of defense for 5 years. The expert can speak in great detail to the competitive landscape regarding DoD and International accounts.

Q: What is your familiarity with the Open-Source Intelligence (OSINT) Industry?

A: I am a retired former 29-year US Air Force Colonel intelligence officer with OSINT experience in the DoD and IC sectors. Additionally, I worked for the industry-leading company, Babel Street, Inc., for 5 years. That relationship ended Feb 2022. BL--I have more than enough experience in this area.

Q: Would you be able to help educate our client on the value prop and/or competitive landscape surrounding OSINT solutions such as Dataminr, Babel Street, Cobwebs, Palantir, SkopeNow, etc? If so, which companies can you speak to?

A: Absolutely, yes! Obviously, Babel Street is my primary knowledge but I'm very aware of all companies in this space, especially Dataminr, Echosec, Creative Radicals, OSINT Combine, SkopeNow, Cobwebs, Geosparks Analytics, etc.

Tegus Client

Hi, thanks for speaking to me today, I am looking to understand the market around the open-source intelligence platforms. I don't have much context around this space. I see some of the names and trying to understand the market. So maybe if you can begin a little bit with your background and your exposure to the space and the vendors that you are familiar with.

Former EVP, DoD Portfolio at Babel Street

Sure. I am a retired United States Air Force Colonel. At 29 years, I retired in 2015, again, a full Colonel and I was an intelligence officer for all those years. And so at the end of my career is when I started to see open source have an impact.

I moved and then I took a job with Babel Street in February of 2017. I worked for Babel Street for over five years. I left them as of this year, February, following a private equity takeover. In that time, I ran their Department of Defense.

I ran their intelligence community. And for about half of the time, I ran their international business as well. I just had to cut back on one of them, and so they hired an international lead, so I stay focused on the Department of Defense.

So that's my general background. So, in those five years, of course, Babel Street has grown into the industry leader in many of the verticals we'll talk about tonight. It was a mutual parting. Obviously, private equity is restructuring many of the senior leaders of Babel Street were said thank you, and they've hired new people, including the CEO.

Tegus Client

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Thank you for that. Can you help me understand like what will these products do in the first place? Like why do customers buy products like Babel Street?

Former EVP, DoD Portfolio at Babel Street

So of course, I'm very familiar with all the competitors and the different spaces that we were in, and I can certainly talk about where Babel Street was generally in the market. But to answer your question, so if you put blinders or bound the question for me, so I really come at this using the words open source, and that's a general description, but I prefer the term publicly available information because open-source intelligence is what results from that, right?

So seasoned analysts who have got their tradecraft down are able to take publicly available information and discern the particulars of that information, potentially combine it with exquisite or classified information and get after the answer that they want to get to. So PAI, for an acronym is really the core of the industry and a subset of PAI is what I would call commercially available information. So companies can access this information in various ways. They can take it right off the web like anybody can.

They can use a web scraper, which is a little bit more complex. You just saw recently the LinkedIn court case, the Ninth Circuit ruled in favor of the small company that wants to scrape LinkedIn because it's public or then you can enter in your commercial relationship with companies.

And so in my case, Babel Street had several commercial relationships where we would procure access to large groups of data. So for instance, message boards or you're very familiar with the white pages that are out there on the Internet, right?

There are providers out there that will collate that so you don't have to look in various places. You can go to one person and get all the white page information off the Internet. Blogs is another good example.

And then the last thing that commercially goes under that subset would be, in some cases, we call a third party. And so because of business relationships, somebody like Twitter, for instance, can choose not to allow companies to scrape their feed.

And then you sort of have to get at that and completely open up, there's nothing illegal about it. You just have to go at accessing Twitter through sort of a third party. So all that fits under commercial. So you have publicly available, and that also includes deep and dark web, that's publicly available. You just have to know what you're doing there. And then you got commercially available, and you can enter into any almost just about any business relationship to get that information you want.

So you can look at Babel Street about 1.5 years ago, it was publicly announced, bought a company called TORI, and that particular company was adept at indexing the deep and dark web, which is a hard thing to do.

It's not like Google, where you can just go out and get stuff. And so they bought TORI in order to more organize their ability to go after deep and dark web. So that's the baseline of information. To answer your specific question, it all depends, right?

We can talk tonight if you want about what I would tell you are the most relevant uses of the information now that I've seen evolve over the last five and a half years, and we can go in each one of those in any kind of depth in terms of what it is and the competitors in that space as you'd like.

And TORI is just a public example of a commercial relationship that Babel Street entered into in order to access and index the deep and dark web. But there's many. I mean this is a very broad area of information. And the use cases, if you will, or the relevant missions within this broad area really would narrow it down even further.

Tegus Client

Got it. And so what do these companies do Babel Street and others, they collect the information from all these sources and index that so that it is like a Google equivalent for the intelligence analysts. Is that how I should understand the product?

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Former EVP, DoD Portfolio at Babel Street

Well, somewhat. So what I would say is that no company is able to replicate what for instance Google does, right? So I can tell you that most of the space exists in a license format. And when that user has a license to any of the software, they are able to use the software that they've purchased in order to access the information at that time, right?

So for instance, in Babel Street's case, Babel Street is not out there collecting everything and putting it in the cloud for them to access. It only goes and collects that information when a client request it. And the way it's typically done is that the software, whether it be at Echosec, Babel Street, OSINT Combine, I would say they are the industry leaders in the basic analysis space.

All those companies respond to their users' queries and the way they focus their users as they, in essence, give them a list of data sources they can choose from. So for instance, if you just want to look at social media, there's a whole list of those. If you want to look at message boards, there's a whole list of those. If you want to look at blogs, if you want to look at consumer sites like eBay or whatever.

And then when the client sort of frames their question, like what are they trying to do with the software, they're then pointed at the right data sources. And at that point is where the companies diverge, right? So when you give a client access to data source, the idea of how you search it really is different across the space. And I can speak to a few ways.

Tegus Client

Got it. But before I get there, so the companies, they will provide when the license user logs in, they will see the list of data sources like for lack of a better example, what are the different cities in Ukraine, for example? What are the different airports in Ukraine? Something like that and Babel Street would show them the list of data sources, not the data itself directly, then if they say, I want this data, then Babel Street will in the background go and fix that data? So this is like a portal marketplace?

Former EVP, DoD Portfolio at Babel Street

Yes. So there's different ways to do that. So some companies like Echosec organize their data sources by geographic region. In the case of Babel Street, I can speak definitively of, we organized our data source by data type.

So social media was one category. You have to know that VK, for instance, is very popular in Russia and Ukraine or you have to know that Baidu Tieba is very popular in China. And so there's just different ways to categorize the data, but everybody is doing the same thing. They are allowing their users to click a data source and then in various ways, search that data source.

And Babel Street, by virtue of its name, it's special sauce, if you will, is searching and taking out the language barrier. So in other words, you don't have to know how to speak Indonesian to search Indonesian social media. All you got to do is know how to speak English and you're good to go.

Tegus Client

Got it. So on the usage perspective, let's say, you said social media is one example. So if I want to search in VK, that is in Russia and Ukraine. And I want to search for, I don't know, John Smith, then will Babel Street, take my John Smith query run in their social media and show me the results?

Former EVP, DoD Portfolio at Babel Street

They will. Yes, absolutely. I would say that certainly, what we're talking about here is this particular line of discussion is basically the analytical function, right, you have a question and you're trying to get information. And you can do it one of two ways. You can do a singular search, it's sort of like, let me take Google, right, Google is a singular event. We will type something in, we hit return, we get an answer.

But the difference between Google and say, these companies that are out there, you can turn that search into something that runs continuously. So your John Smith query on VK could be a one-time thing, or you can set it up to be a persistent search.

Tegus Client

Got it. So at that time of search, it will tell me what are the results? So, Babel Street will take my John Smith query, submit it to VK, show me the results in the Babel Street platform? Or I can make it every day, show me what are the new hits for this name, and it will do that?

Former EVP, DoD Portfolio at Babel Street

Correct. And all these platforms will allow that search to run until you turn it off, correct.

Tegus Client

Got it. And what is the end value that these products are providing? Is it that, I as an analyst don't have a user name and I don't have an account in VK, so it is making that process smoother?

Former EVP, DoD Portfolio at Babel Street

Yes. I mean, in essence, it allows you to range broadly across the space, I mean it's almost impossible, right? I mean, think of the different, you have 4chan, Discord, Flickr, Instagram, Twitter or Facebook. We could go on; you and I can make a huge list. And so what these companies are doing is they're accessing publicly available information.

So when I said Facebook, for instance, much of Facebook is not accessible because it's a networked piece. But then the other part of Facebook is very public, right? There are tons of public groups on Facebook that anybody can search. And so I can certainly speak for my experience is that data integrity and data stewardship is of the utmost importance. Because if you violate that as any of these companies understand, then those companies can cut you off of everything.

Now that's not to say there may not be smaller firms out there that are doing things they're not illegal for sure, but they may go against the terms of service of the data source that you're searching. So that's something to remember.

Tegus Client

Got it. Understood. Okay. So the first use case is it's kind of an Uber search platform that makes it easier for the analysts so that they can run the search across multiple, multiple platforms in one stroke?

Former EVP, DoD Portfolio at Babel Street

Correct. So then it comes down to is what missionary. And I can just list four here if you want that kind of gives you an idea because you asked the question, well, what do you do?

Okay. Well, so the first one that's the most obvious is alerting, right? And so Dataminr is certainly the industry leader right now out there. Others like Babel Street and Geospark Analytics, I would say, are really trying to knock them off.

But in essence, alerting is what you would think it is. A user sets up alerts in the platform and then is told when something hits on that alert. So an explosion in Karachi. So you may have an alert set up for Pakistan.

And the next thing you know, you get something that says, "Hey, something happened here, right, all based on publicly available information." So alerting is really the baseline of the genre. And it can be very timely.

I mean everybody says Twitter, but there are other data sources out there that are much more timely than

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Twitter, and that's what the power of these companies are, they go out and find those data sources so that the client doesn't have to worry.

They just know that they are getting the quickest possible notification of that bomb in Karachi they've got, right? So Dataminr, Babel Street, and Geospark Analytics, I would say, are certainly the big ones in that space, and IntelCenter is another good company that's out there doing great work with regard to the alerting.

Then you move up into sort of, I would say, identity and risk calculations. And so now it's a little bit more complex, think of supply chain risk management research. So if you're going to create business relationships with clients, you have the ability to research those clients and research the senior leaders of that company.

I think government security clearances, right? How do you seamlessly look across all this open-source data. So if somebody is joining the government and need the clearance, if somebody needs a reinvestigation or really where the government wants to go is continuous vetting, right?

So, let's say you have a U.S. government security clearance, the Defense Counterintelligence and Security Agency, known as DCSA, in the future, their intent, I believe, is to have continuous vetting on anybody in the government that has a clearance.

And that would entail the use of these software tools. Now you can't do everybody all the time, right? So, let's say John Doe filed for bankruptcy. And now they are more of a risk. And so they can set up more tailored searches to watch their behavior potentially that would be at risk.

Tegus Client

Understood. So this is kind of a background search for people and companies?

Former EVP, DoD Portfolio at Babel Street

Yes, background search, think insider threat, think fraud, waste and abuse, right? I mean you could be monitoring somebody and they're buying a brand-new boat, and there's all kinds of information out there.

And if somebody makes \$65,000 a year and they bought a boat and a Porsche in the same year, that has a security function. You see what I'm saying, there's all kinds of things that can go into this vetting both business and sort of investigative work.

And one I would say would be data fusion, right? So now you're getting to the point where you take these multiple sources and from all the different angles, so whether it's cyber, whether it could be a term in the industry is link analysis. So in other words, if you look at VK or you look at Reddit or you look at Twitter, what are the relationships that are out there?

I mean they're discernible, right? You and I like a Tweet. Therefore, now we've established a relationship with that sender, and it goes on and on from there. Reddit, those message board groups in Reddit have incredible value.

So all that can be used together for what I would call that an open-source product based on PAI. And then lastly is the true sort of government use case. And it doesn't have to be classified. It can be human trafficking. It can be state and local law enforcement. It could be fraud and embezzlement.

It could be white-collar crime, and it could be what's the status of the Russian military today around Mariupol, for instance, based on open source. So that's the analytical piece that can be done with the information. And in some cases, the government can combine that with classified information that they only have access to. And now you really have a total picture.

Tegus Client

Got it. Understood. Okay. I think I understand the main use case. I want to dig into them one by one. I understand the search use case. The second use case you mentioned is around alerting, like say set up an

alert for something in Karachi. How do these systems, Babel Street and stuff, know about that? Like are the data sources owned by these companies? Or are the data sources something different?

Former EVP, DoD Portfolio at Babel Street

So no. So it's the same model across the whole thing. So in the case of, let's take, Dataminr, if you had a Dataminr account, you would go in there and say, these are the places or the cities, it could be anything. I mean everything starts with a map usually. And then you may say, okay, those are the geographic areas. Now you're going to pick your topic. So in the case of Karachi explosion, that could be terrorism, maybe you're more interested in labor issue.

So please alert me when social media starts to trend on the potential for a strike in Mumbai, in India, for instance, whatever. So it starts with geography that the user picks and then they pick their topics. The companies are the ones that are doing the data source choosing for them.

So alerting is really basic. If you're a PAI alerting software user, all you have to do is decide geographically where you're interested and then decide the topic you're interested in and the companies take care of the rest.

Tegus Client

But who chooses the sources in the example you just mentioned, who chooses the sources?

Former EVP, DoD Portfolio at Babel Street

The companies, right? So I mean there's some analytical tradecraft that the companies are doing. So I mean, let's get local for a second. Let's say there was an earthquake in San Francisco, if I had alerting set up for the earthquake, that's one thing, you get notified, obviously, that it happened. But then what about looting, what about transportation issues.

So in that case, the data sources would be local news. They may be local press. They could be commercial satellite vendors who are using commercial satellite and reporting about what they're seeing. So the companies in this space do the analytical work for the alerting clients.

Tegus Client

So I guess the point I'm driving to here is the company, meaning the Dataminrs and Babel Streets of the world, they are not just a set up an alert, but they also have the technology to collect the data about San Francisco earthquake, if that's what the alert is for. They know where to get that information from, decipher that, interpret that and say this is related to this alert and then surface it to the user. So that's part of the technology.

Former EVP, DoD Portfolio at Babel Street

That's right. And then the last part of that is, how does the user want to be notified by text, by e-mail, et cetera, all the user gets to choose the method of notification.

Tegus Client

Got it. Understood. And then on the identity and risk part, you said, hey, if a person is being monitored, if they bought a boat, then you want to know about that part. That involves a lot of financial, industry integration, with their bank account or with their DMV stuff, do all those integrations exist as well?

Former EVP, DoD Portfolio at Babel Street

So this is a good example of third parties coming into play, right? So all three of the credit agencies make

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their data available. So companies can enter into relationships with, say, TransUnion or Experian or whatever.

LexisNexis is an incredibly good site. And in fact, over the last couple of years, LexisNexis has sort of pulled back from selling their data and actually is trying to get into the business themselves, I believe, of doing the identity and risk themselves.

Thomson Reuters, another great data source. So then there are other companies that pride themselves on that. Let's say that you're using OSINT Combine, which is a very, very popular Australian product, very good product.

So they may enter into a relationship with say Skopenow or Fivecast, which are other PAI companies. So that information that specifically is dealing with identity and risk management could then be focused to their users. I mean that's the way to explain that.

Tegus Client

So the Dataminr and the Babel Streets, they set up relationships with these underlying data providers, LexisNexis or whoever and pay them for some annual access but for the end-user, it is all in one place and available.

Former EVP, DoD Portfolio at Babel Street

Correct. Very well. I would just say if I had to tell you, I would qualify 60-40. In other words, 60% companies can go on their own using their own software on the open web or the deep and the dark web.

And then the 40% is where they have to enter into a commercial relationship in order to procure access. But they're all the same. It's all open. It's all unclassified. It's just how they're procuring the data.

Tegus Client

Got it. Let's say, LexisNexis has a lot more information about the users, right? So if I buy Babel Street or Dataminr, will I get access to LexisNexis data because Babel Street already paid LexisNexis and it is included? Or as a customer of Babel Street, I have to purchase additional LexisNexis data, but it can still show up in the same platform?

Former EVP, DoD Portfolio at Babel Street

I can speak to my experience. We had no upcharges. So once you paid for a license of Babel Street, you've got access to the data sources, which were told to you before you purchase. So you would know what data sources you are accessing, and I think this is the way the industry works. Now I can say some companies do have the ability, let's say, you have your own LexisNexis access. And let's say Echosec does not. It's conceivable that with your password, all you got to do is load that into your Echosec account, and now you're going to allow Echosec to go into your LexisNexis and combine that with their sources, but only for you, right? So there's all kinds of ways that, that can be done.

Tegus Client

Got it. Can you talk about the analyst workflow, like are there multiple other products they use? Or do they start with something else and then come to Babel Street and then go to something else to do their job? Or what is their workflow and other solutions they got to use to do their job?

Former EVP, DoD Portfolio at Babel Street

So I think the answer to that is really to get into the persistent searching piece, right? So depending on the different companies that are out there, and remember, this industry really exploded in the post-9/11 counterterrorism world.

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And so everything was very focused on individuals and terrorist networks, et cetera. Obviously, as time has played out, it's still important, but we've already mentioned many, many other use cases now that have emerged. And so let's say, you can be an insurance risk office and you could use this software to monitor, to set up your own searches based on your expertise in the area and then draw off all the sources of the software that you've purchased.

So the most important thing I can tell you is the analytical piece doesn't give you the magic bullet. The analytical piece relies on the user's analytical tradecraft and experience in order to build the best searches. It's mostly done by Boolean logic. There are differences in there, but for the most part, it's Boolean logic.

And as I said, Babel Street has enhanced linguistic and advanced linguistic enrichment that allows you to transcend language. Others just use Google Translate, which is not the same. So that analytical piece is very hard, because you got to spend the time, it doesn't matter what software you've got, you're going to build something that only you want results on, you're going to have to give it some thought.

And hopefully, these companies, I can speak for Babel Street, we spent a lot of time with young, we call them, genie. So I had young 20-somethings and 30-somethings that work for me that were then assigned to users to ensure that they were successful because it doesn't do any good for somebody to buy software and not use it because they're not going to renew. That's what we do.

Tegus Client

Got it. Understood. And if I do a search in multiple social media thing, the same John Smith appeared in multiple other forums, so it should be that kind of entity resolution?

Former EVP, DoD Portfolio at Babel Street

Yes. Very good. Entity resolution. So I mean, nothing is perfect, right? The entity resolution is one of the great use cases. And I know that many companies, Babel Street, Echosec, Palantir being one of three are working very hard on doing the searches you just described for John Doe and then sort of with AI/ML, coming to some conclusion or maybe giving a score that says, "Hey, this John Doe and this data source is likely the same as this John Doe and another data source, right?"

That's an example of AI/ML being applied to sort of help an analyst come to a conclusion. Two other areas that, that goes on is sentiment analysis. So you can get a general sentiment calculation of information, is it negative? Is it positive, et cetera?

And then the third is bot detection. Very popular in the space. Is there a way with AI/ML? And there is to sort of discern and give somebody a risk factor that what they're looking at is actually being generated by a bot and not a real person. Not perfect, but it helps, right? I mean it's better than zero.

Tegus Client

Got it. Understood. And shifting gears, who buys these products? Is it the national security agencies or who are the buyers for these kinds of products?

Former EVP, DoD Portfolio at Babel Street

So it transcends, I can just speak to the general structure and sales. Babel Street had four teams. We had a commercial team. We had an international team. We had a Department of Defense and intelligence community team. And then we had a, what we call, the FedCiv team, which was everything else in the U.S. federal government. So think homeland security, treasury, state department, et cetera.

I mean, you can go all the way from having Walmart in their Arkansas operations center monitoring social media or maybe executive protection is another great use case, right? Is there negative trending out there that would potentially put one of the Walmart executives or Walmart family members in danger.

So that's a great, very easy, simple use case for the commercial side. Brand management, marketing, event

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experience, right? I can tell you that sports teams love these software tools because they look across all social media and all blogs and message boards and then are able to give them an idea of, hey, did people enjoy the Washington Capitals game last night.

That's bad. We'll go to a football game. The San Francisco 49ers, where there were incidents in the parking lot that we didn't know about because people were posting about a fight or alcohol incident. So it just opens up the world of information to whatever the audience is.

When you get into the government, obviously, you're ultimately talking about either military members or civil servants or in many cases, commercial companies that have government contracts and they buy the software for their contractors to support the government. A good example of that is the investigative piece I talked about earlier, most of that work is done by contractors, not government personnel.

So all the vetting, all the investigative techniques for security clearances almost always start with the commercial company doing the investigating service. And then the military and the intelligence community themselves, depending on your mission, right? I mean again, it starts with geography, where are you interested in? They have great knowledge based on their geographic area.

The Department of Defense, as you know, is organized by geographic combatant commands. So if you're in the Pacific, you're very familiar with what trends in the Pacific in terms of data sources. And now you can use these software tools to really search and persistently search is really the key. Persistence is, I can't stress that enough. The idea that you can build a source and let it run.

Tegus Client

And the budget for this, where does it come from?

Former EVP, DoD Portfolio at Babel Street

Yes, good question. So it comes from both the operations and the intelligence side, and now even with logistics, right? So supply chain, risk management, contractor vetting, that's all logistics and contracting function well outside of operations and intelligence. Operations can be something as simple as monitoring foreign military students when they're in the United States, right?

Army students at Fort Polk, for instance, from Northern Africa. The use cases are endless. And then the intelligence side, obviously, there's huge budgets there. And one of the main reasons for that is because PAI is releasable to allies, right? So you don't have to worry. I can't stress enough how the pendulum has swung, right?

Back when I was in the Air Force 15 years ago, I would have never allowed PAI to even enter into the equation. It was newspapers and transcripts of foreign news broadcast. That's all it was. Now, of course, everything is turned on its ear. And if you think about it, PAI is the foundational piece of information now, a, it's accessible; b, it's incredibly cheap when you compare it to the cost of satellites and other things.

That's the foundational piece of information that then you build upon with your exquisite and more expensive needs. And then the budget is well worth it, lastly, again, I'll stress, because now when you get this information, you can share it without having to worry about classification issues.

Tegus Client

Understood. And who would you say are the leaders in this market? You mentioned Babel Street, you mentioned Dataminr. Who else would you say are the leaders? And what are they unique about?

Former EVP, DoD Portfolio at Babel Street

So let's go back to the categories, because that's the best way to do it because there are experts in all. So alerting, certainly, Dataminr is in the lead. But I can tell you, their users aren't particularly happy, and that's trending bad for Dataminr. And so companies like Babel Street is beginning to get into the space. Geospark

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Analytics is an up-and-comer. They are very much trying to apply much, much more AI and ML to the problem set that I've never seen before in my opinion.

And then there's a smaller company out there for alerting known as LifeRaft, which tends to do more domestic alerting. Then you get to the identity and risk piece. Certainly, Skopenow and Fivecast, I would probably put out there as the leaders, although Babel Street again is trying to get into the space.

And then you've got companies like LexisNexis and Thomson Reuters and the credit companies themselves, I wouldn't think it's too far-fetched for established commercial companies to sort of join forces and go after this because this is a booming business. I would say identity and risk which this area is growing the fastest.

And then you get the basic open-source intelligence and data fusion piece. Intelligence, as we've talked about it already sort of allowing users to search seamlessly across these data sources, Babel Street, Echosec and OSINT Combine, I would say, are the leading three. And then the next step, the highest step would be the data fusion piece, right?

Now you get into the Palantirs, PrimerAI, Torch.AI, these are companies that are really spending heavily on trying to find the magic bullet, right, trying to do things in the back end with AI/ML to get to the right answer. And that's a hard thing to do.

Tegus Client

So where does Cobwebs fit in?

Former EVP, DoD Portfolio at Babel Street

So Cobwebs is, I would say, they are trying to be a little bit on the last two. So I would say they certainly, in my experience, I saw them give a demo at a trade show in Phoenix last November, and they really were talking about the AI/ML applied for data fusion. But their basic platform is analytical. So very similar to what we have talked about. They had access to a suite of data sources.

They make sure that their clients understand what those data sources can provide, and then they provide them the means by which they can search it. I think their biggest challenge, in my opinion, with the United States government is they're not U.S.-owned. And so that can be a challenge, particularly when the money is coming from the intelligence budget, the fact that it's not a U.S.-owned company can be a business challenge.

Tegus Client

Got it. And all other companies you talked about are U.S.-owned companies?

Former EVP, DoD Portfolio at Babel Street

I mentioned OSINT Combine. I know they're Australian. I know the CEO is a good friend of mine, we tried to hire him back in the day and he went his own way and built his own company. He's doing tremendous.

Tegus Client

Understood. Okay. So you're saying Cobwebs is focused on the basic open-source intel, data collection and then the data fusion with some of the AI stuff, but their challenge is that they are not U.S.-owned.

Former EVP, DoD Portfolio at Babel Street

Correct. That is my own personal assessment, yes.

Tegus Client

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Got it. And how big is this market? Like how big is Babel Street? How big is this market in the first place?

Former EVP, DoD Portfolio at Babel Street

Well, so Babel Street is a private company, so I can't speak to the breadth and depth of everything, right? I can always speak to my book of business. And that would be the Department of Defense and the intelligence community combined. I led that team from 2018 through the beginning of this year.

And I can tell you that we are averaging anywhere between 40% to 60% growth every year in that vertical, right? Now I will also say that's pretty rapid growth because it really was a booming industry. The Department of Defense and the government in general, I would say, investigative services, FBI, all the service investigative agencies like CIA.

Tegus Client

I guess, what I'm trying to understand is like you don't have to give me the exact numbers, but is Babel Street like a \$10 million, \$20 million revenue company? \$100 million, \$200 million revenue company? Just so I get the understanding of how big the market is, how big the vendors are.

Former EVP, DoD Portfolio at Babel Street

Yes. So I would say based on my last information, generally speaking, my guess, if I were to give you my assessment, I would say that Babel Street is above a million. And I don't know about the others. I mean Dataminr's got quite the war chest. But again, I think Babel Street is certainly the industry leader when it comes to that analytical function. The question of growth, in my opinion is, I mean, all these companies, I think, that we talked about, they're all very good in their certain verticals.

The question is, which companies out there can begin to expand and apply what they've learned over the many years in their vertical of expertise to other things like alerting, like identity and risk management, if you're an analytical company, and you want to expand. And so that's right when I left Babel Street as they were beginning to look at other areas beyond their core competency.

Tegus Client

Got it. So, OSINT is one thing, defense agencies and DoD had TS or other classified information, right? And I think it is important for those agencies to combine the OSINT and HUMINT and any other intelligence with their own confidential like first-party data.

I would imagine that is not being done within one of these platforms, but how does like the intelligence analysts, for example, like combine all of these different disparate data sets to come to an answer on the question?

Former EVP, DoD Portfolio at Babel Street

Well, I mean in the case of the government, I mean, that's something that they work on from day one, right? So when you enter into a particular analytical career field and all the services and then in the civilian world, in the Defense Intelligence Agency. I mean you're building your analysts. So I would not say that a new analyst is able to sort of put everything together, what you'll typically see is they will specialize.

And so what's emerging now, DIA, for instance, the Defense Intelligence Agency is the first intelligence community organization to actually have a PAI OSINT specialty for their analysts. So somebody is designated as an analyst in that trade. The services are using different nomenclature to identify people with expertise, but they haven't created a separate, what you call MOS or actual job.

So you're really talking about being an expert in whatever genre, OSINT PAI being one of them. And then as you either interact with other analysts say with signals intelligence, imagery intelligence, human intelligence, that's where the fused picture comes from. So it's an art, it's not a science, for sure.

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Tegus Client

So there's no like a direct integration between say like Babel Street or Cobwebs or anything like this to their center repository of all these information, where the insight is being generated. It is more steerable to a manual process there. OSINT, they do a search through one of these platforms for some of the other, and I think for PAI sort of data, they do it through different means. And then the actual fusion of those data sources is done manually by different intelligence analysts, for example. Is that generally the correct way of understanding it?

Former EVP, DoD Portfolio at Babel Street

Generally speaking, yes, I maybe will break it down a little bit more. So there is PII information that is very geographically centered, for instance. So think about the advertising industry on the Internet and the apps, the Wall Street Journal has done some great stories about the locational data that is shared from your device when you use certain applications freely.

Now it's anonymized, right? So it's not identified to you, sir, or me. It's just a device is using that app. And at that moment, there's a geographic reference generated and there's a time and a date generated. And so think about that data and maybe another example is the data that now we know car manufacturers are collecting of automobiles. Again, anonymous.

So it may be my Hyundai Santa Fe, but all Hyundai is collecting is, a, Santa Fe and specific locational data from that. That's the sort of PAI that can be combined with other geographically oriented intelligence or operations information, can you imagine if you could take exquisite signals intelligence and apply and combine it with open-source application data.

So now you have a more coherent picture. So that's the one exception, I agree with the way you described it on the people side first, but there is very much of an avenue of taking this publicly available information, either gathered openly or bought through commercial vendors and combining it digitally with exquisite information.

Tegus Client

That makes sense. And you mentioned for learning minority data, identity and risk piece, Skopenow and Fivecast, but on some of these product value, what truly differentiates one platform versus another? If we take any of these product use cases, but is it the sources of data? Is it the way that they're generating insights from it? I think it's all of the above, but if you can distill that down into like what is the product differentiation between say, like Dataminr and Babel Street or Geospark?

Former EVP, DoD Portfolio at Babel Street

Yes, great question. So let me answer that in several different ways. The first one would certainly be the UI, right? So it's not a given that everybody's user interface is top-notch. And so I think UI is what we all sort of default to. When we sign on to a software program, we either sort of understand it intuitively or we don't.

It doesn't mean you can't use it, but it means it's more of a challenge. So UI is definitely a differentiator, and when I say that, I mean specifically that companies are investing in keeping their UI modern. I've seen many different examples of companies that are doing great on the acquisition of data sources, but their UI hasn't kept up.

And so therefore, the user is impacted. The second thing is language. Without question, as this genre grows, the latest forecast, you go to Unicode on the Internet. It's a great website for statistics about the Internet and all the emojis you name it. On Unicode, two years ago, they made the statement that for the first time ever, the majority of content on the Internet is now in a language other than English.

And so a big delineator now in the field is how these software tools navigate through the language challenge. And I'm somewhat biased, but I mean the public's pitch for Babel Street is very language ontology-driven. In other words, they have identified a way to seamlessly search through languages in much, much different

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ways and in much more effective ways than other companies that are just using Google Translate.

And what I mean by that is that if you take any of these companies and let's say you want to search for the word coffee in Indonesia. So what happens is, is these companies will take an Indonesian website, for instance, or social media translate it to English and then search for the word coffee.

That's the way Google Translate is used throughout the industry. Other companies, Babel Street, I think, is leading the way, do that in different ways, mostly proprietary ways, but it's much more effective. Basically, searching in the native language in which something is created is the key. And then the last thing you mentioned it, sir, is data sources, right? I mean, who is out there leading the way with regard to accessing data as it's created.

A great example of that is after January 6, 2020, the movement in social media that occurred in the explosion of Gab and Parler and Rumble for instance. And message boards and blogs blew up. There was something called The Win Communities, and it was all domain-driven with regard to President Trump.

And so all those things are being created, and the real question is, can these companies stay out in front and access them or enter into commercial relationships in order to access them. So those are the big three, I would say, UI, language barrier and data sources.

Tegus Client

And in addition to this, I would assume there's a lot of workflow either it is creating the tickets or the investigative workflow work that the analyst has to go through, right? Does it happen in a different tool or does it happen in the same tool?

Former EVP, DoD Portfolio at Babel Street

It depends. I mean I've seen some of the investigative things, all you got to do is put a name in. And then based on your requirements, what will come out will be a PDF file, which has all the information there for you, right? So the investigative side lends itself to sort of the production of reporting.

I think the best way to describe the other side of the coin is we get back to that alerting piece, so we've talked a lot about setting up a persistent search for whatever your topic is, let's say, terrorism in Algeria. If that's the topic you're interested in, companies come at that problem in different ways, but ultimately, a user is given the ability to monitor Algeria with regard to terrorism.

The real question then is how do you notify that user when something that they care about is revealed. And that's becoming a delineator in the space. And there's a nuance there, right? So I'm not describing Dataminr who's already doing that, but that's their calling. They alert people by nature of their business.

What I'm saying is you, sir, could set up your own search. It's personal to you, right? Only you know what it is, and then you make sure that the company that the software that you're using has the ability to update you and alert you on your personal searches.

Tegus Client

And do the companies in the space set up their own data models and the dictionaries and the ontologies and all that stuff, like if I say, for example, show me anything happening in Tokyo, does it automatically have a dictionary that says Tokyo is part of Japan. So anything Japan, earthquake, I should alert as part of Tokyo and there is an emperor, there is a prime minister, like do these companies maintain these data models and ontologies?

Former EVP, DoD Portfolio at Babel Street

Yes. That's the best way I would explain it. I mean, yes, that gets to the technical side. And certainly, the leaders in the space do exactly what you said. They have their own special sauce by which they maintain access and catalog their data. Another delineator that I've seen out there in the space is some companies

will make, let's say you searched something, and you get results back.

And then I'm a different user of the software. We don't know each other. I start a search on something that I'm interested in. And maybe there's something that you collected that the system knows and it will give me that information unattributed, right? I won't know who you are that you actually searched for at the first time, but it also fits my search. So there's ways that can be cross-filtered.

But no, that really gets to the technology, the technical side of what delineates these companies is how they set up all those different functions. Unfortunately, I'm not a tech person, so I can't really help there.

Tegus Client

I understand. And how would you describe the market opportunity, meaning none of what you're talking about, I don't know how new it is. Like do all the people who need this kind of a product, do they already have it? Is it market saturated? Or is this an up-and-coming with a lot of growth? Or how would you describe the market opportunity?

Former EVP, DoD Portfolio at Babel Street

Excellent question. So the elephant in the room with this genre is privacy, right? And so if you go to Europe, the GDPR, which is the General Data Privacy Regulations that the European Union has put into place, certainly curtailed many of these companies' ability to go as deep into data as they can in other parts of the world. That doesn't mean that the genre is not growing in Europe, it just means that it's bounded, right?

The EU has said, this is the genre. There are certain things that you cannot search because we are deeming them to be private information. For instance, what's an example of that, that may be going back to that application piece I just talked about the apps sharing your location.

Maybe that same app knows exactly what your IP address is when you access the app. I can tell you that in the EU, that's not information that can be gathered. They deem that private. So in the United States, it's a much different story. We have four states now that have some variation of a privacy law.

And I would say that the #1 concern across the genre is the status of privacy and how that can be navigated. Now what's interesting is that in the government intelligence consumers, clients, users, they already have a resident role between them and private data. In other words, you can look at Executive Order 12333 is the executive order that establishes intelligence oversight functions in the Department of Defense.

And in a nutshell, that restricts anyone from the Department of Defense from collecting information on an American or an American entity. And let me tell you, many years in the military, there's nothing more sacrosanct than that. But open up the aperture some and you do get into this idea of what is private data, what isn't?

And I think some people are hesitant. So to answer your question directly, the thing that I believe holds back the market outside of the United States government is that people are very unsure about what's private and what's not.

Tegus Client

Got it. And what about the state and local, like, for example, does the local police department needs something like this for their areas?

Former EVP, DoD Portfolio at Babel Street

Absolutely. Well, I would say the #1 hindrance in that case is cost. These tools tend to be pretty expensive in the thousands of dollars for one license. I know upwards of \$15,000 to \$18,000 per license in some cases. And the government can buy in bulk, and that number can come down significantly. But if you're the Rockwall County, Texas sheriff's department and you've got a human trafficking problem on Interstate 30, these software tools would be very valuable to you.

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The problem is they're expensive. And so another thing that's emerging in the market are third-party companies that are buying the software and then providing products to those that can't afford to operate and buy and operate them because think about this, if you buy the software, this isn't something you buy and tell somebody that, hey, check it every now and then.

This could be a full-time job. And so you, in essence, are buying the software, but then you may have to hire somebody and with that goes another salary and benefits and all the things that go. So that can be quite expensive for the analytical side, the alerting side that we've talked about tonight, practically peanuts. You can very much get into the Dataminr, Babel Channels. I don't know what Geospark calls their product. But all 3 of those entry-level are very inexpensive, and it's just a matter of alerting you based on your interest.

But if you want to do analytical and you want to do persistent searching, it can get quite pricey. The last thing I'll say again were kind of the privacy again, but particularly in the law enforcement realm, I think prosecutors at the state and local level are still beginning to learn about the genre.

Federal prosecutors get it because of the counterterrorism, the national security piece that has been alive and well now since 9/11. But state and local officials, with the exception probably of New York PD and Chicago and Los Angeles, the big cities like that, they just don't understand what's it. So that's a long way of saying, I believe there is great growth in the state and local area.

One example of that, and then I'll stop. Most states have state fusion centers for their law enforcement. So Texas, I believe, has seven. So maybe the county can't buy the software, but at the fusion center that includes that county has a software, that may be better, right? So this idea of funding software at the right level at the state and local levels is key.

Tegus Client

Got it. And what is the trigger for purchasing something like this?

Former EVP, DoD Portfolio at Babel Street

Well, I think it's a combination of the standard marketing and BD practices you don't know what you don't know. And a lot of the data sources I've mentioned tonight, most people have no idea what they are. So they wouldn't even know that they need to search them. So I think basic marketing practices, tailored conventions, law enforcement or intelligence or there's all kinds of things like that. That's where people learn about the genre.

Tegus Client

And once customers buy these products, how is the churn? Like is it easy to get off of half of Dataminr and go to Babel Street or go to Cobwebs, how sticky are these products?

Former EVP, DoD Portfolio at Babel Street

I wouldn't call them sticky at all. I mean, most people operate on one year licenses. I know there's some sell for less than that, but the churn in the government is quite low because it takes a long time sometimes for the government to buy something, and it's awful hard sometimes to cancel a contract, but because Dataminr, for instance, has been the alerting tool of choice in the Department of Defense now for, I think, almost nine years.

That doesn't mean it's the best, but it's the one that's still getting funded, and people are certainly trying to knock it off. You can see on public record, you'll see the last time this was completed, Babel Street and Geospark protested the award of the contract because the GAO did not rule in their favor, but still, it's pretty contentious.

So beyond that, I think it's a little bit more of churn when you get to commercial entities, state and local just because of the difficulty of getting somebody so I mean the government and the analytical trade tends to be perfect for this stuff. That's what they're doing, and now you're just adding another world to their job.

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Introducing PAI as an area to be considered at state and local or I used Walmart earlier, I mean the idea that now somebody in the Walmart operations center in Bentonville, Arkansas, is using PAI software to monitor various things of concerns for the company to include executive protection in anything.

How many facilities does Walmart have in the world or in the States, they could monitor any mention of those. No different than say, the state department monitors any mention of embassies and consulates across the world. So the sky is endless. It's just a matter of, I think, revealing the ability of this genre to get at what people want to know.

Tegus Client

Got it. If you look at kind of the global presence and selling to customers internationally, how would you compare Cobwebs and Babel Street?

Former EVP, DoD Portfolio at Babel Street

Well, I've never seen a demo of Cobwebs. I'm not sure, I saw a small demo at a convention, but I've never seen an in-depth demo there. That's why I could put them in the analytical space like Babel Street. But I don't know, for instance, maybe they had data sources that Babel Street doesn't, it is possible.

Internationally, I think the #1 thing to know, if you're analyzing the international market is that the Five Eyes consortium rules, meaning the United States, Great Britain, Canada, Australia and New Zealand. Those five countries have seamless exchange. And so there really isn't anything called international when those five countries are involved.

If New Zealand buys something, the other four are going to trust it. That is a pretty sacrosanct. So that's something these companies are capitalizing on, right? If you can get your foot in the door, let's say, in Australia, their customs and border agency. If you can get your foot in the door on the Australian customs and border, the other four customs and border become a lot easier because a valued member of the Five Eyes community has already vetted the tool.

Beyond that, you have to look at organizations like NATO, and then I would say the last part about the international business that is key on the government side or the Department of Defense geographic combatant commands. So European Command holds some say Africa Command, Southern Command, those generals, those four star generals, there's great books out there about the influence that, that Senior American official has in a particular geographic region is considerable.

So if their Director of Intelligence or their Director of Communications or their Director of Operations were to go to Chile, for instance, if your Southern Command and talk about the integration of these unclassified software, I'm sure it would resonate in those nations. And it is. It is.

So those are the three. I'm sorry, I can't speak to commercial. I do know that the insurance industry, the cyber security industry are really big consumers of this information. I just haven't ever worked in those business areas.

Tegus Client

Got it. Understood. Great, this is very helpful. Those are all my questions and thanks for taking the time, have a good rest of your day.

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