UTB Show: An Interview with Bharath Madhusudan from Securly

Blake: Good afternoon and welcome to the Using Technology Better show. My name is Blake Seifert and today there is a bit of a mutiny going on. Mike Reading, my co-host is not joining us today so I am really looking forward to just getting down to business today and exploring some interesting stuff with our guest this afternoon, Bharath, from Securly. Bharath, might you want to introduce yourself and sort of what you are about?

Bharath: Sure. So first off, Blake, thank you for having me on the show. So I am one of the co-founders of Securly. I am also the CTO of Securly. Securly is a Silicon Valley based education technology company that does online child safety. Essentially we don't think our process as a web filter, it is more about We think us a company that measures and manages online screen time for children. We are cloud based and we are built from the ground up for schools. We just came out of that parent product.

Blake: Fantastic. And how many schools are you, at the moment?

Bharath: Five hundred schools, the overwhelming majority of those in the United States. We have some early traction in the UK, Australia and Canada.

Blake: Okay, fantastic. I mean you've got a lot of schools there. I am sure you are collecting a ton of data on a daily basis. I am sure it's off the charts the amount of data. Really what I want to talk to you about first I think is about what you see. I mean you are seeing a lot of different trends. You are probably seeing a lot of interesting welfare issues pop up, interesting data and security issues. What are the sorts of things that you have seen in schools and perhaps I don't know for our audience that could get a little bit of a value out of that and say, "Well, what are some things that I should be looking at in my school, even without a product like Securly? What do I need to be worried about? What do I not need to be worried about?"

Bharath: You know, it's interesting how even with schools very, very open policies, we of course have schools at different ends of the spectrum. Those, for example, in rural America, that have very stringent lockdown policies and those on the Coast that are more liberal that have less lockdown policies and you'd be surprised how even schools with open policies you have 50 percent or more of the time spent online being spent on education, being spent on worthwhile pursuits I would say. There are certainly activities when a child goes home but you would be surprised how much learning goes on even at home.

Blake: So a lot of schools have wide-open internet you are saying.

Bharath: I am sorry?

Blake: You are saying a lot of schools have wide-open internet.

Bharath: They do. Well, the U.S. has a law called CIPA Children's Internet Protection Act and basically what CIPA does it mandates schools to use some form of web filtering. It's basic pornography blocking and even with just the basic blocking you'd be surprised, like I said, how much of time is spent online on educational pursuits.

Blake: Okay, yeah. I think that's interesting. I mean we run a very open house here at McKinnon. We don't do a lot of active blocking of students and what we find overwhelmingly is that that freedom to not have to go and get something unblocked because I need to use it for school. That freedom to just go

and do it without asking permission I think is, you know, it really shows itself especially in art and places where sometimes the lines are a little bit blurred and I think that sort of old school methodology of locking everything down, in the long run, can hurt or, from my experience, can hurt I guess teacher creativity and teacher innovation. Would you agree with that?

Bharath: Well, like I said, Blake, in my introduction, we find the concept of web filtering to be so 20th Century and we don't normally think of ourselves as a web filter anymore. The bag line on our home page will change soon to reflect a new message and that message will be measuring and managing screen time. So it's not so much about blocking stuff anymore it's about getting teachers and school administrators and parents the intelligence as to how technology resources are being used by kids. Our kids are spending their life online. You know, what are they seeing on social networks? What are they searching for? What YouTube videos are they watching to learn? That sort of thing. So it's less of blocking stuff and more about measuring and managing how kids are using technology. It's subtle but an important shift on the way we see things.

Blake: Yeah, it seems like it. One thing that impresses me about your company is it is driven by the teaching and learning outcomes, not the sort of I have the control, you know, control freak in all of us that wants to lock things down. I think that's a really good philosophy and really interesting. What do you say, just playing devil's advocate to the people who talk about this just being a fee tactic? Like why do we need to snoop into their social media accounts? We all got up to no good when we were in school and we turned out okay. What do you say to that? Is this just fee mongering? There is a lot of this stuff people are spending money because they are worried about what can happen about covering themselves.

Bharath: I mean I can pull a dozen news cases out that are pretty much. What if we had the most popular You Tube video across a certain district and what if we shared the information out of the district? What if teachers within a certain district shared information with each other as to here is the most popular YouTube video in my class now why don't you use it as a teaching resource in your class? As an IT admin in a local district I met with recently came up with the following news case. Let's say a teacher had access to social arts during a certain classroom time. Now the social arts basically give the teacher an idea of what kids are searching for during a classroom lesson. That is information he or she can then use to improve a lesson plan. Those are a couple things right there. It might seem like snooping but really it is intelligence for parents and teachers to learn about how kids are learning.

Blake: Sure. So what would you say, I mean if a school is looking at going down this path, they want to find out more information about their classes and about their student activity. What are the key things that you want to look for? Is it their activity after hours and contrasting that to their learning inside class hours? What are the things that we should be looking for?

Bharath: So really each environment is different. So really having said that, Australia is, of course, very different from the United States and I wouldn't bet on what is happening in the United States is something that would happen in Australia. So we are the keys to measure, right? I'll give you an example of this local school. Summit Public Schools, there are six charter schools in the San Francisco Bay Area and if you have ever seen the movie Waiting for Superman, Summit was featured in Waiting for Superman. They recently went 1:1 Chromebooks across all Summit schools but they are somewhat hesitant about going 1:1 take home and they started a take home program, as a pilot, and all of the schools have a Securly plug-in those Chromebooks. Now they're not filtering at home because it's against the school's policy to filter at home but what they're doing is sending the Chromebooks home

with the Securly extension on it and they're gathering data about what kids are doing at home. Are they actually learning at home? Basically we take all of the data and present to the school leadership and take home across all six or all seven Summit schools next year. Once again, the key is not to look for certain things. The key is to look for data and to measure and to figure out what to look for.

Blake: Sure. What about data mining? Like we talk about Google got into a lot of hot water over this recently looking at how particular services and I suppose this is a similar thing in terms of your mining that data for use of the school and while it may be within a legal boundary, what about the moral implications of that? Is there things we need to be thinking about, you know, monitoring kids inside their own home? Do you have to make it very clear to the kids that that's going to happen? What is sort of the thinking around that?

Bharath: Well as far as the integrity of the data itself is concerned, let me sort of address that by saying that we are pretty much committed to not using The data belongs to the school, the child and the parents of the child and we are recognizant of that. Now having said that, at least in the U.S., the expectation of being filtered is pretty much factored into a 1:1 program. It should not be surprising for the kids or the parents to see certain I guess inappropriate content being blocked at home because after all it's a school device and the way the school sees it, they're investing resources into buying this thing for the child. Now it's really up to us to try and figure out how we can optimize it for learning purposes.

Blake: So the schools pay for the device and put it in the hands of the children, is that right?

Bharath: Exactly. That's exactly right.

Blake: So in a model where it's parent funding, like in most of the models I, certainly in Victorian schools, but around the country where state schools, in particular, funded by the government often put that cost back onto the parent. Labeled this term BYOD, you know, bring your own device, which can often be bring your own disaster but is there different thinking around that? I mean you wouldn't want to be putting something on that monitors that child's device when at home, if it's theirs, would you?

Bharath: That is correct. There's lots of schools in the United States that do have a BYOD program or that have parent-funded Chromebook program and those schools generally shy away from using Chromebooks or devices but really the trend in the United States is I think schools are starting to discover that the cost of Chromebooks have dropped lower than the price of paper textbooks so it's really about moving money from paper textbooks into the Chromebook world. It's really a reallocation of resources to save money and basically use free online curriculum.

Blake: Yeah, that's interesting, isn't it? The whole cloud based curriculum is sort of taking over in a sense and I guess you can track that now with Securly and that would be one of the benefits of it is to say what resources are being used and trying to draw those conclusions.

Bharath: Exactly.

Blake: In terms of tracking, is that all Securly does? Is it just a monitoring and filtering product? Is that sort of the start and the end of it?

Bharath: No, it's quite the contrary actually. Two years ago that would have been true. That was the start of it. We started the cloud-based web filtering service for schools but in the past year really what

that has evolved to is just a sub straight of what we do. It's the core engine, there is a core filtering engine, but we have built a couple of different value adds on top of the core sub straight. One value add is, of course, reporting. We have extremely visual reports, which I can sort of show you in a minute.

Blake: Yeah, that would be good. Just maybe take us through the product itself. I know the insights are really interesting and I think it would be interesting to see what it looks like and also how it works as well. Do we have to install an app on every computer? I mean what's the setup involved for a school to turn this into a solution?

Bharath: Sure. Absolutely. So on the Chromebooks it's a piece of cake. It's simply a Chrome extension that you push out to through the Google Apps admin control panel.

Blake: Do you need the control panel to do that? In order to push that out, do you have to purchase that admin panel with your Chromebooks?

Bharath: Yes, yes you do. I am not sure how it works in Australia but at least in the U.S. doing that is pretty much the norm with all Chromebooks.

Blake: Yeah, absolutely. I think there is sometimes a bit of a gray area about whether we need it or not but certainly for things like this we do, by the looks of it.

Bharath: Yep. That is just for the Chromebooks but we are also able to filter any other device anywhere, you know, Macbooks, Windows PCs, iPads, both within and outside the network and for every other device it's really a DNS based setting. So you just point to your local DNS to forward up to Securly and we seamlessly filter all those other devices in much the same way we filter Chromebooks.

Blake: So we change that DNS at the school level or at the device level?

Bharath: At the school level. Basically most schools still have a local DNS server that they would use to resolve on their local domains and the ones that they don't resolve get forward to Securly.

Blake: Okay, and when they go home then obviously they wouldn't be monitored with that model. It's only the Chromebooks that you can monitor outside of the school, is that right?

Bharath: Quite the contrary. Like I said, we can monitor iPads, Windows PCs and Macbooks as well outside the campus.

Blake: Okay. Cool. Do you want to show us sort of what it looks like when you've got some users on Securly? What sort of benefits you can demonstrate for us?

Bharath: Sure, absolutely. This is kind of what the dashboard looks like over a one-week period and by the way you can change this to a day, a week or a month. For a one-week period you have 90,000 searches in this district, 35,000 videos watched and 8,000 Wikipedia articles and sort of here is a feed of latest activity across the entire district. Time spent on media sites, you know, 10,000 hours cumulatively across Google across the entire district; 2.5 thousand hours cumulatively across the entire district on YouTube and categories. What are kids spending time on? So the users is basically rich kids are spending the most amount of time engaging in educational content. What are they searching for? What are the top searches? The social stuff I'll come to in a minute and basically what this is supposed

to be is a map with all of the Chromebooks placed on them physically. So as you can see, Blake, this is not so much filtering but it's simply an accounting of how technology resources are being used for the child.

Blake: Sure. Yeah, it looks fantastic. I like the way you can drill down, drilled right down into each of those subsections. How are you assigning what is educational content? Do you have a big database of that? Do you manage all that yourself?

Bharath: That is exactly correct. We do have a database on what is educational versus what is not and we maintain a list of top educational sites as to the question by a district, by the districts that we serve and that's how it goes.

Blake: Okay, fantastic. That is a good overview, for sure. Another question just around the philosophy of monitoring and things like that, is there a feeling or a sense that if you are going to account for this data and the kids know that you are doing it, so they know that you're watching what they're doing, that they're going to try and get around it by tethering to their phone or using an alternate anonymous proxy or trying something different. How do you sort get around that? I mean you know what is happening on the connections that you've set but if they're tethering to their phone, surely that stuff isn't picked up.

Bharath: Well actually again, quite the contrary because if they're tethered to their phone, the Chrome extension is still on the Chromebook.

Blake: On the Chromebook, yeah.

Bharath: Yeah, exactly. So the filtering happens on the Chromebook. As for anonymous proxies are concerned, most proxies have fairly standard strings it can look for in the response content to help us block them proactively.

Blake: Okay, fantastic. So what about like if they are inside the school grounds and they're using their mobile phone connected to the Wi-Fi. Is that going to be monitored as well?

Bharath: That is going to be monitored. The only thing we cannot monitor because it's technologically impossible to build is 3G and 4G on phones, right? That is something we cannot possibly monitor and that's what we don't monitor for but if the child is using the school Wi-Fi, they get the school's DNS, which, of course, gets filtered by Securly.

Blake: Sure. So you are still not capturing – I mean a lot of social media goes on, on phones, and if they're not connecting to the Wi-Fi then there would possibly be things you're not capturing through there but do you think that's quite a small percentage of the total traffic?

Bharath: Quite the contrary again. I mean, from a U.S. perspective, a lot of kids come to school with cell phones. I think it would be naïve to feel like they wouldn't come to school with cell phones but most schools are also smart to realize it's not a liability issue for them. What are the liability issues, if a child goes off track on school otherwise? So that's how most schools tend to see it. Actually start here.

Blake: Right. So liability issue, which is kind of not really where your products focus though, is it? I mean there's a lot of other products out there that are really focused on that, on risk management and

liability. But I think one of the things I like with this product is it is focused on teaching learning outcomes and it is up to the school to make a decision on what is – where the line is in the sand on are we protecting our kids or are we sort of suppressing them or blocking their freedom. I mean it's certainly a discussion we've had here and our concerns would be that we are opening a box, like a Pandora's box, of stuff that perhaps, you know, might not be the best thing for us to be looking into but, on the flip side, some schools just use it when there is a welfare issue. They can go back and look through that student's information. It's a really interesting and divisive issue and I am not sure what the right thing is.

Bharath: The right answer is a function of culture really. Just yesterday I was reading an article that said Denmark has absolutely no filtering. Absolutely no filtering and they encourage the kids to cross the road and potentially get into situations and deal with those situations. But in the U.S. there is a law and the UK has a law as well. So the right answer is really a function of culture and even more so in the United States it's a function of subculture. The simple law, for example, says that you don't have to filter at home and many schools are like okay we're compliant of we don't filter at home so they choose not to filter at home. Yet other districts we serve in rural America, you know, even though it says we don't need to filter at home, they take that step anyway because of blowback from the parent community. In places like Missouri or Kansas, the Chromebook is the only device the child owns unlike let's say San Francisco where every child has access to five devices. Rightly so, the parents in these places have I guess common fears about what would happen if the child comes home with a device for the very first time and that's kind of where a child safety product comes in.

Blake: Yeah, I can understand that for sure and I think we have different –

Bharath: It really varies across cultures, Blake. If I talk to somebody in Denmark I would say we're not a web filter, we basically measure and manage screen time. But if I talk to somebody in Kansas or Missouri I would say we are a web filter because that's what you are using us for. That's one of the interesting things about selling Securly in the field to our customers. We are different things to different people depending on cultural circumstances.

Blake: I think that is very telling here. In regional schools, there is a concern with parents that don't understand quite what's going to happen when their kid brings a laptop home and connects to the internet and does things that perhaps they're not even aware of. So I think there is a need for a duty of care there and certainly in primary schools I think there is a need for duty of care but our philosophy here as being secondary to give kids control over their education and that extends to their managing their time and managing themselves online and we provide digital citizenship in education and around that. That has been our approach and that has worked well for us but I certainly would not like to apply that to every school in the country or much less in the world. It has been really interesting talking to you today, Bharath. I would like to thank you for coming on the show. Is there anything else you wanted to show about the product itself? Is there anything that perhaps we would be interested in, especially for the Australian/New Zealand market or anything like that?

Bharath: Sure, absolutely. Well I don't have it live right now but basically one of the things that we're extremely proud of is the fact that we have plenty of variety of social media monitoring. Schools in the United States a lot of them just block Facebook and at home. So the first thing, and really like I said, Blake, our philosophy is focused on educational outcomes and the philosophy is really focused on opening up internet versus closing it up. The first step we took to encourage schools to allow Facebook for students is this notion of a lax take home policy. So the idea is we keep these sites blocked in school

where they could be a legitimate classroom distraction but as the child goes home with the Chromebook we open up Facebook, under a lax take home policy. Not all schools do that so we took it one step further and we basically made Facebook posts available and monitor it for auditing by IDMS. That also is not where we stop. So we've gone one step further beyond that and we are now processing all of these posts and tweets through a national language processing algorithm and we've actually partnered up with a well-known researcher NLB who works at UC Santa Cruz and we're basically using her work to further essentially reduction of cyber bullying and this undesirable internet, if you will. That any administrator interested in learning about -

Blake: Sorry.

Bharath: Just a few weeks ago actually we pre-empted a potentially incident in Kansas one of the customers and this girl posted on Facebook something like slowly I am realizing I don't have a purpose here so everybody say goodbye because Friday it's all over. That was alarming and it was caught through algorithm proactively and it was certainly alarming enough for us to want to alert the school authorities. Now the interesting thing about the tweet, the fullest, was that there was no single word in there that could be detected by a traditional keyword-matching algorithm. Nothing like suicide or kill or depressed. It was a combination of words that had made a sentence associated and that's kind of what we caught. The interesting things is schools in the U.S. are not proactively asking for this. It's something we are doing as part of our double bottom line vision for schools. We are, after all, interested in online child safety and we want to grow beyond just blocking to doing what no product has done before, which is essentially ensuring the safety of these kids on social networks.

Blake: And I think there is a tremendous need. I like that you are trying to open social networks up because I think learning is where kids are, you know, and they're all on social networks and if we're not embracing that, at some point, if we're just blocking them out, they're going to figure out a way to get on there and we're not going to be there to, like you say, enforce that protection layer and help them and work through potential life-threatening situations. So really interesting story in that. I do thank you for coming on the show. It has been really interesting to talk through it and I know divisive. I am sure our viewers will have their own opinions on it and certainly, if they do, feel free to send Bharath an email at Securly. We'll have all his details in the show notes and put a comment on our YouTube video and just say hello. If you want to come on the show as well, we are more than happy to have you on. You can apply through UTBshow.com. So again, Bharath, I'd like to thank you so much for your time. Good luck with your product. It's fantastic. We'll see everyone next time on the Using Technology Better show.