NCSBN
Leading Regulatory Excellence

Past Event: 2023 NCSBN Annual Meeting **- Committee Forum: AI/Remote Proctoring Video Transcript**
©2023 National Council of State Boards of Nursing, Inc.

Event
Past Event: 2023 NCSBN Annual Meeting

More info: https://www.ncsbn.org/past-event/2023-ncsbn-annual-meeting

Presenters
Crystal Tillman, DNP, RN, CPNP, PMHNP-BC, FRE, Chair, NCLEX Examination Committee; CEO, North Carolina Board of Nursing;
Phil Dickison, PhD, RN, COO, NCSBN

- [Crystal] Hello. I'm Crystal Tillman, and I'm from North Carolina. I also serve as the CEO for the North Carolina Board. And I've had the pleasure of serving a chair for the NCLEX Examination Committee. And today I'm partnering with Phil Dickison, COO of NCSBN, soon to be the next CEO in October. And we're going to be doing the NCLEX Examination Committee update.

We're going to do a little bit differently this year, which I think is exciting. So being on the NEC is much like the great doctor, Dr. Seuss, his book, "Oh, the Places You'll Go," on NEC. So here we're doing

[inaudible] just got it lifted off. And then Phil says, "Okay, let's go and jump in into AI." So here we are. And if you were fortunate enough to be at Midyear, you got to hear his great presentation. And we're going to recap some of that today and show you some other things as well. So I'd like a special thank you to our committee members and the NCSBN staff that works with NEC.

You're all exceptional. The NEC's primary responsibility is advising on the matters related to the NCLEX examination process. For the past several years, the NEC has focused on the impact of the NCLEX, and the changes in landscape of health care and the effects the pandemic has had on the health care worldwide.

It's important to note that the NCLEX experienced a reduction in the pandemic, but certainly did not experience a disruption of exam administration, which is huge that we were able to keep going during the pandemic. The exam continues to support validity and reliability, and the NCSBN persists in its focus on increasing efficiency and effectiveness in the licensure process.

Today, I'd like to present the NEC work. And I brought the expert with me. During the 2023 Midyear Meeting, you received an update on the work to support the development of a secure, reliable, remote proctoring and advanced AI system. With the implementation of this project, some of or all testing to

remote proctoring administration, and offer increased security and workflow efficiencies for the nurse and regulatory bodies with better software tools, and AI support systems.

So folks, put your seatbelt on, tighten your strap, because you're about to blast into space with Phil. And David, what you did today was a great prelude to what we will be talking about today. So, Phil, can you give us a recap of the information presented during the Midyear Meeting?

- [Phil] Yes, I can. She asked if I could. She didn't ask if I'd do it, but that's okay. I can. Oh, I will do it. I have to...you know I can't stand still. So this is going to have to be not in front of that podium.

I'm sorry. I'll be back here because I can't do it without talking with my hands. But at Midyear, we talked about where were we going? What was the map for remote proctoring? What did we have to solve? I'm not going to go all over those. You should have seen them.

We can make them available to you. But ultimately, the idea was if we were going to use remote proctoring, if we were going to use AI, what were the things that we had to solve? And through these points that we've made here, we said that we got to solve 27 points of validity, or threats to validity. And they all came back to, as I told you, a validity triangle, right? Validity triangle, the strongest building block you can ever get is a triangle, and it has three legs, content, psychometrics, and security.

We have the greatest content in the world, and we have the greatest psychometrics in the world. But when you go to AI, you're changing all the security. So a lot of the focus was going to be on security, and how we then could get this administered in a remote environment. And so we continue to focus the research, ensuring that we have data interoperability, those sort of things that we're working there, the technology solutions.

All of this. And I showed you what the candidate experience before the exam might look like. We started to talk about the tech check. And we said, "We've got this AI built. We could actually build a tech check that a person would log in to a site three days before the exam. We could check their..."

I showed it to you, right? We can check their open browsers. We can check what was on that machine. We could lock all that down. And then, oh, by the way, you remember, we could get their face graphed, take their voice so that when they came back three days later, we would have a voiceprint and a face graph. So we would know it was exactly the same person. We went through all that.

We talked about graphing, and how we could do that. And what I want to show you...wanted to show you, but you'll just have to believe me now, and I haven't lied to you before, so please believe me, is what we've done since then. Remember, I was showing you single things. We can map the face, we can map a voice, we can take an item. And actually, if you're trying to do a snapshot or a screengrab of it, make it go away with QR codes.

I talked about having little DNA, and what I called cyber DNA in there so that if you ever showed it, I'd know exactly with that barcode when you took it, and at what machine you're on when you took it. We showed you all that. But [inaudible] we had to start, what? Stitching it together.

So let me tell you how far we've gotten. And it is rocket speed. So David's talking 2050. I'm talking 2025. So we have a different speed. His is larger, but I think we can do all this by 2025. And what am I saying?

So we started stitching together. What if we wanted our AI to get a second person detection, right? And so some of the slides I was going to show you is really cool. So we started with, "Okay, if a second person was in a room, could our AI pick it up?" Guess what. Yeah, almost any AI can pick that up right now. That's not that good.

So I said, "Well, that's...we need better than that. What if all they could see was a hand and a foot? Could our AI tell it was a human?" We've done it. I said, "Well, okay. That's kind of cool. But what if they weren't actually in the room? You just caught their head peeking around the window. Could we get them?"

We did. That's cool, right? So I said, "Well, that's probably not good enough either. What about just a shadow? What if we could find it with just a shadow? We don't even actually see the person, but there's a shadow of one. Can we find that?" Guess what? We did. That's the type of thing that...that's how fast we've gotten since March.

We couldn't do that in March. We can do that now. Very cool. So in stitching it together, what about that second voice? Right? Can we pick up a second voice? Well, let me back up before I do that.

So I showed you the graphing of the face. Some of you remember that, right? And the guy with his mouth, and there was graphing around, right? You could watch it move, right? You could see their eyes moving. And we graphed all that. What if they were moving their mouth, and we could actually get our AI to lip read?

That's kind of cool. Yeah. Yeah, we can. So what if there's a second voice in the room? Can we tell it's a second voice? Yeah. We did it.

We stitched it together. We can do it. What if that second voice is not a human voice, it's an electronic voice? I.e., let's assume... How it happened, I don't know. But let's assume for a minute that our AI missed an earpiece, or missed a phone. Maybe they got attached somewhere else.

So what we did was put a phone... Love this one. Put a phone in the room over here, and had our person taking a test. We called that phone, opened the line, and we spoke through that line. Not only were we able to tell it was an electronic voice, we were able actually to have the AI print the text out of what was being said on that phone.

We actually put a earphone in, and could actually know something was coming through there, but it wasn't loud enough for us to translate it. But we did even pick up an earphone that was speaking to the person. This is outside a door where you got lines over it. Didn't miss the person at all.

Look at this one. This one is distorted and we still got it. There's even a cooler one. This one, show this. Yeah. Look back there behind the door. Do you see that person back there?

Our AI did. They're not even in the room. They're just walking past the door. Kind of cool. This is all the things our AI detected. Remember what David said? This is a really cool thing to remember.

He is absolutely correct. AIs right now don't make decisions. They provide data. Every one of these flags our AI got, it timed when they got it, and what it required was for a human proctor, right, who's watching too, to check each of those out, and either pass them or not. Right?

And so it found this person. It found... Let me see. I think there's a better picture. That's the voice. Look at this. The voice here, this was the actual organic voice here.

The magnetic voice said, "Do you need any help? I can help you with this." That is what they actually said on that phone. And it, in fact, caught that text and wrote it down for us. Very cool. So now you're at your next question. We're back on time, right?

- Yeah, we are back. Isn't this great information now that you have slides that you can see? So, Phil, can you tell us more about the work done to protect the exam items?

- Yeah. So what we're getting ready to do, and this is where I'm saying that we're ready to get operational. We know our AI can do it. We know we have a CAT engine that can deliver this. We know the AI is getting smart. It only gets smarter every day in a very controlled way. We control it.

Right? That's supervised, unsupervised reinforcement happens all the time. But the next step is part of our very bylaws is that we should help reduce the workload of the boards of nursing. That's written into our bylaws. And one of the things we want to do is actually do that. So we are going to start using AI behind these consoles, what we call consoles.

What is important is this item banking console. I'll show you it in a minute. We've got a CAT engine. We're working on an admin console. And NRB console, that's yours. That's yours where you can actually get data real time, and have the AI look at it for you. We've got a testing site console, a financial console, a candidate console, all in one system.

[inaudible] that mean the AI can put all that data together for you, and give you data of which to analyze to make decision. So these are the four we're working on right now. Candidate, NRB, item banking, and CAT engine. I just took some screenshots, or we created some screenshots. This is really cool. I know there is probably no testing vendor out there in the world right now today that actually has an AI that can do what we call bank health.

So our AI can tell us where in our...where we're building items, pool production, pool prediction, where we need more items, the content we need. And that means what? We can bring people in in a very defined way to write items for our bank, instead of saying, "Well, bring in 10 nurses, and hopefully we'll overproduce items," which, by the way, I appreciate that we did that because we have the biggest bank in the entire world, but that's not necessarily sustainable.

So this creates a way for AI to do this for us. The other thing is your regulatory body, this is just a snapshot of what it can do, not what it will do. But my point is we can make this and it's...it will be customizable at the state level for what you need it to do.

So we will be able to provide you what you want. But if you need to create a different workflow because all of you have different licensing workflows, different task workflows, we're going to be able to do that. While we provide you, like I said, the nice things at the top that are sort of dashboard-y, you can get behind those, see deeper. That's where we're going with that. And the AI is helping us with that.

Candidate console. That's also kind of tied into your system, right? They're different consoles, but these are all laced together in a single system with AI security, with the content, psychometric security added to it. I love this one because I know nobody today, without using virtual machines, that can actually launch a CAT exam without what I call latency problems.

Remember... It's Loretta [SP], right? Yeah. So, Loretta, if you were sitting in an exam and had to wait five seconds for the next item to come up, how happy would that make you?

- [Loretta] I'd want it faster.

- You want it faster, right? And so we call latency that. So we need a latency to be less than a blink of an eye. And we've got to be able to do that over the internet. So we're very close. We can do that. I don't...no other group that can finally do that and not lose security or any of the things that we've tried to build into this.

So it's really exciting what we've been able to do. I will tell you, we are partnering with a group called ExamRoom.AI. ExamRoom.AI, with our guidance, has hired some of the brightest, smartest people I've ever met in my life. That means...

By the way, how many have seen "Big Bang?" Yeah. That's a room full of Sheldons. All right? I just need you to know it. But they are so bright. They've came...we've got them from Google, we've got them from Amazon, we've got them from the Canadian Stock Exchange.

We've got them from individuals who've solved the UPS logistics problems. All over the world, we've been able to do it. That's why we're being able to move fast, because this is their only role. This is what they're doing. And they are totally focused on making sure that we're able to do this successfully as a council. And by the way, those that went to the focus group, remember, when I say council, it's not the staff.

The council is we. It's not us and them, it's we. This group is working for you to ensure this happens. The other great thing that I told them is it has to be cloud agnostic. So who knows what's going to happen to the cloud out there, right? So we need to build it so it didn't matter.

I don't care who's the frontrunner, don't care who's doing anything. We're building this cloud agnostic. And that is a huge solution set for us, too, as well as the idea at the end of this is also to build it with our own cloud if we need to, so that if you're ever de-platformed anywhere, the council can go on, you won't be able to buy your stuff on Amazon, but we'll be able to give you a test.

And if you ever expand, we can become Amazon. All right. Just saying. I don't really want us to do that. It's a joke. But the point is, if they ever de-platformed you, wouldn't matter because we can run it ourselves. So that's the long-term goal.

We're looking to make sure this is real to you starting somewhere post January 2025, somewhere in that year is what we're...that is our hope. That is our goal. There is no reason that I believe we will not meet that. With that, I'm going to turn it back over to you.

- All right. Great. Thank you, Phil, for the update. And since we have a few minutes left, does anyone have questions for Phil regarding the remote proctoring, AI?

- [Lory] Hey, Phil.

- Hey.

- So, Lori from California. Not necessarily remote proctoring for AI but the step right before that where we get the applicant at our boards. Can AI be used for all the transcripts and all the documents received so that we no longer have fraud, so that when we send them to there, they're qualified?

- So the answer is yes. Interesting, we're working on that. The idea is that we can actually have a bot that can evaluate curriculum. We give it...it can evaluate certificates, all of that. So yes, the answer is that our intent is to have that in that nursing regulatory board console. Where you're getting at is what we're calling...it's one of the initiatives of the council, which is called licensure process reform.

So I want to be clear, do not call it licensure reform process. It's licensure process reform, and it's building those efficiencies for you. Yes.

- [Theresa] Theresa Delahoyde, President of the Nebraska State Board of Nursing. And my full-time job is dean of an undergraduate nursing program, BS program. So this is very near and dear to my heart. Can you explain just a little bit more about when you were talking about no longer having 10 nurses coming in to write questions, and how you're going to do this a little bit more efficiently and with AI?

- I can. I'm going to step back up here so everybody can see me, but I will look at you. All right? There's a couple of things we're going to do. One, it doesn't mean that we'll get rid of nurses, but we're working on two things. So I always think this needs to be a hybrid. Maybe someday, 10 years in the future, it changes.

All right? But right now, to me, everything has to be thought in a hybrid way. And so where I'm getting at is what we'll be able to do is say we need to write on OB, and it needs to be focused on these three tasks in OB. We can actually go out and recruit those individuals to come to Chicago, and write for us the way they do today.

But in the background, we're working on automated item generation so that our AI can actually develop items which then, instead of bringing you in to write, I bring you in to review and edit. And we could generate thousands upon thousands upon thousands, as long as you'll come and help us review them.

Right? And then they still have to be put in an experimental pool, and do all the things. But this will be huge for item development. It will change the whole world in terms of test development if we're successful.

- Thank you.

- Yeah. Yes?

- So for item validation, are you going to partner that with the NCSBN individual number when you're tracking workforce and experience, and target the people with the best experience to be able to validate that?

- So the reality is that's already done. If I pulled your record, right? I'd be able to go back and go, because of your ID number, I know exactly what items you took, and how you respond to those items. I know that. We may become more efficient at that. It may be... I mean, I get where you're going.

I think it's a great question, but we can do that now, and we may be able to do it more efficiently.

- I might have asked the question wrong. The people that validate the questions that your AI is right, how do you choose those people? And will you...

- You help us.

- Well, I know we help you right now. But if you're using the NCSBN identifier number, and you're tracking their workforce, and you're tracking their competency and their ability, would you then partner and utilize that information as well to target people that are most competent?

- Well, I think we could do that, but I don't think we'd ever step away from working with the board to continue to validate because there's more than just that that I wouldn't be able to check. So I think it adds credibility to it.

- [Male] [inaudible]

- Yes. Right, right. So, yes, the idea... I get where you're going. We can say our numbers say this is what we know about this person. I would still think, at this point, maybe we become comfortable at a while, we'd say, "Loretta, this is what we...we want this person, this is the credentials, this is their experiences, everything we have. Will you approve them to be part of that?"

That's what I still think needs to happen at this point, because it's not just us. I don't think, at this point, a regulator should step that far away from what we're doing. You should be involved in it. Right? No other questions? Really? Come on.

All right. Crystal, I turn it back over to you.

- All right. Thank you, Phil. And thank you for the presentation, and the questions. And I'll turn it over to David, and hope you all have a wonderful night.