

Connect Special



••• Edition 29

Editor's Desk

Dear friends,

This edition brings to you a unique idea in the field of rehabilitation . A very interesting work in Artificial intelligence by an inspiring researcher and some helpful links to free communication apps make this edition informative and worth reading.

Happy Reading!!

Regards,

Bhavna Botta

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New Technology Solution

For a country like India where there are 3.26 mental health professionals for every 1,00,000 people, isn't online therapy a much needed solution. [1SpecialPlace](#) explains to us this unique solution .

Tell us about the need for online therapies and TheraKonnnect

Online Therapy or Telepractice is the use of technology to provide therapy via high speed internet, webcam, headset with microphone or any other form of communication. Online speech therapy is a clinical arrangement where the patient and a certified speech therapist communicate and interact face-to-face over the Internet.

There are a lot of technical challenges with online therapies . Thus evolved a therapy platform called [TheraKonnnect](#) which seamlessly handles all types of communications between a therapist and client . It is a comprehensive and affordable solution for online speech therapy.

Who benefits from this program ?

Online Speech Therapy can be used with clients of many ages and ability levels. It is a great method of speech therapy for children, adolescents, adults and seniors. This benefits children and adults with delayed Speech & Language, Autism Spectrum Disorder, unclear Speech, stammering, Apraxia of speech and many more conditions .

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What are the benefits of online therapy

Online Speech Therapy saves time and cost of travel

- It promises better continued therapy overcoming situations like bad weather, traffic jams, unwell parents etc.
- It can be accessed even if clients traveling to another city
- It can be accessed from home/office/school
- Clients can sit with their child to monitor their progress in the online sessions. Many a times in conventional Speech therapy centers parents can't attend the sessions and online therapy breaks those norms.
- Research shows that with online sessions even mothers learn a lot and are able to use the tips and ideas in day to day communication with the child. Hence carry over of therapy is significantly better.
- Effective cost of therapy for the client is lower in case of online consultation as travel and other associated costs are avoided

What is the scope of Professional development

More and more consumers are taking to technology to solve everyday problems including accessing health care facilities. Around 6% of all health care mobile apps in the world are dedicated to speech and mental health care alone! With the onset of the information age, consumers are also willing to try new solutions if it solves their problem effectively in a convenient and affordable way.

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Therapists in India are not only using telemedicine to reach rural areas where such services are not available but also to reach Indians living abroad! We at 1SpecialPlace are serving customers in regions like Europe, UAE, USA, Australia to name a few. In short, this is a great time to be an online therapist!

Interesting ,how to get Started

Starting an online therapy practice is in some ways similar to starting a conventional offline practice with a few key differences.

1. Get Trained : While any qualified speech therapist can practice online, acquiring certain techniques and methods for practicing online can significantly enhance therapy outcomes. When we started online speech therapy, there was no formal training available for becoming an online speech therapist in India. Trainings provided by therapists in USA are great but can be expensive and not always suited for Indian clientele. As a result we created our inhouse teletherapy training programme at 1SpecialPlace. The same training program has now been released publicly to be used by professionals seeking to get trained in teletherapy. The training is conducted by teletherapy specialists who themselves have been trained at ASHA and have been working in this same for more than 2 years.

2. Find an online therapy platform : Despite numerous advances in technology, conducting online therapy can be quite a hassle. This is due to the lack of availability of an integrated software that can smoothly handle all aspects of communication between clients and therapists. This is key in online therapy because there is so face to face interaction. This communication is of 3 types :

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1. Pre-Session communication : It consists of collecting payments, booking appointments, sending booking confirmation, reminders and giving easy options to reschedule or cancel. Pre-Session communication is essential to maintain healthy relationship with clients by avoiding any confusions and also to ensure revenue coming in smoothly for your practice
2. Ongoing-Session communication : This primarily consists of video conferencing and other associated features that assist therapists in a therapy session. In traditional video conferencing solutions like Skype, the interactive features needed for speech therapists are not present. These also make it super difficult for clients to join sessions. Hence it is important to choose the correct video conferencing platform
3. Post-Session communication : After a session has been successfully completed, it is important to communicate what happened during the session, any follow ups needed, session recordings or materials used during the session. This is essential to improve client retention by keeping them apprised and up to date about their therapy progress. Session recordings are a key differentiator which give an edge to online therapy over offline therapy. Hence it is essential to ensure that your therapy platform supports session recordings and provides easy access to them.
4. Advertise : Advertising is key to the success of any practice.
5. Keep doing it : This has been the single most important lesson that we have learnt in the last 2 years of conducting online therapy. As you gain confidence in taking online sessions and more clients find out about it, the word will spread and more clients will contact you for online sessions. Gradually it will become a full fledged practice,contact us at -

<https://1specialplace.com>

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A Research and A Researcher to follow -

Originally published at- [Access and Inclusion Through Technology News](https://disabilityvisibilityproject.com/2018/07/17/ep-29-robotics/)
<https://disabilityvisibilityproject.com/2018/07/17/ep-29-robotics/>

Meet Kavita Krishnaswamy , a professional researcher with a physical disability. Kavita is motivated by a powerful, innate force: autonomy is the soul of independent daily living that is achieved with the advancement of technology

Kavita Krishnaswamy is a Ph.D. candidate in Computer Science at the University of Maryland, Baltimore County (UMBC) working with Dr. Tim Oates. Kavita is a [Google Lime Scholar](#) and Microsoft at the National Science Foundation's Engineering Research Center – [Quality of Life Technology Center \(QoLT\)](#) in Carnegie Mellon and University of Pittsburgh and IBM Business consulting services.



Image description: Young Indian American woman with black hair tied in a bun.

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Her research involves the development of robotic systems to provide assistance and increase independence for people with disabilities. She is developing several prototype robotic systems that will support transferring, repositioning, and personal care, with a focus on accessible user interfaces for control that are feasible for persons with severe disabilities.

Short transcript of the interview

So, how about we start with maybe you can introduce yourself and say anything you'd like to share.

KAVITA: OK, sure. So, I'm a Ph.D. candidate at the University of Maryland, Baltimore County, UMBC. And I'm working with Dr. Time Oates at UMBC on assistive robotics to help people with disabilities and seniors get physical independence, and that's the goal of my dissertation: to make sure that I can help people get physical independence as much as possible. And the challenge

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is, even if there's a lot of robotic technologies out there, then the other challenge is accessibility. Because most of the robots that we have now, they're controlled by joystick and maybe keyboard or very difficult Python programming. It's not easy and not intuitive and not friendly. So, my goal is to make sure that we create a accessible interface in order to control that robot.

So, when you first got interested in robotics. Was it when you were a kid?

KAVITA: Right. Right. Well, growing up, I realized that technology helped me expand my physical limitations. Like, I understood even though writing became more and more difficult for me that using a computer really improved my effectiveness and productivity. So, that's when I realized you know, technology's kind of amplifying my difficulty, I mean my limitations, and making sure that I have equal access to all the other tasks or other ways of making sure I express my ideas. So, that's when I realized technology is the path.

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So, that inspired me to join the STEM student group in high school. It was called Mathematics Engineering Science Achievement Program, MESA. And in that, we had different projects that students would divide into groups and then work on this project. And nobody chose robotics. It was a big surprise to me, and that's when I thought you know, why don't we create history at high school? Because it would be the first robotics project our high school would be participating in. So, I participated, but the challenge I had was to create the robot. I needed physical help to actually build it and assemble it. So, I had to have help, and I'm really blessed with two younger brothers. So, they were my hands. Under my instructions, both of them—both of my brothers—they assembled the robot according to my direction. And I was able to write the code for it. So, we applied for the IEEE Robotic competition in our state, and I was

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very happy to know we won 3rd place. And that was big history for our high school. Our high school is Wilde Lake High School. That's in Maryland too. And that really changed my perspective: if I really had the physical help to build and assemble a robot, I can make a change; I can make a positive impact. And I can leverage that technology to help people.

I had it in my head. So, during my undergraduate, I took Computer Science and Math as a dual major, but I never had the opportunity to do robotics. So, after my undergraduate, that's when I thought I should really find a way to get into robotics, and that's when I applied for my Ph.D. program to work on assistive robotics.

What about people doubting your abilities

KAVITA: Right. I mean a lot of people thought I couldn't do robotics because I don't even have the strength to move my own hand. So, they gave me a look. People would give me a look that I

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realized the meaning behind that look was saying, "How," or "This is impossible. Why is she even trying?" But I never let that stop me because I feel like when people tell me I can't do something, I have to prove to them that I can, you know? That's really been my, I guess, my way of thinking when people say no to me. When people say no to me, I always think I have to try again, to stop me from trying to do it. And I wanted to mention that I was part of the Maryland Youth Leadership Network. It was, I think, a week-long conference for young students with disabilities where we would leave our home for one week to spend like an entire week away from home, just to gain the experience that we can live without our primary caregivers, our parents. So, that really changed my perspective. It was the first time I was ever away from home, and I remember really being disappointed, crying. I mean I was 16 at the time, but I was still

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crying because I left home, right? Because I wasn't used to the support system, relying on caregivers for a whole week, 24/7. It was not just for a couple hours in a day; it was the entire week that I had to rely on people that I've never met and people that has no training in helping me and doesn't understand the complications of spinal muscular atrophy at all. So, within that one week, I had to learn to train them. I had to learn to train them, and I had to make sure they understood my needs of physical care. So, all of that was really challenging at that point. But right now, when I look back, I think all of that trained me in order to become a stronger person today because I know how to ask for help. I know how I can get help and get my needs met, right, just so I can complete the activities of daily living. It's so basic, but it's so challenging because of all the tasks that are involved.

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What sort of Adaptations and accommodations helped you

KAVITA: You know, with spinal muscular atrophy we get progressively weaker. So, at that point, I was able to write by hand. So, all I had to use was a graphite pencil, you know, the old pencils? So, it would only require a little pressure that I had to apply in writing, and that would make my writing easier so I don't have to press hard on the paper. And I was able to turn pages in a book by myself. I was able to use a standard mouse. I could use the keyboard a little bit, but I often would get tired. And I would rely on the onscreen Macintosh keyboard in high school, and I think they still have it. It's called Co:Writer. It's the word prediction. I'm pretty sure they still have it. I remember using that. That was always helpful. And the challenge with that was you had to get the keyboard separate, and you had to get the word prediction separate; it wasn't a complete package. So, I remember that.

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Then gradually, my arms became weaker. From writing by hand, I switched completely to typing on the keyboard. So, instead of writing by hand, I completely switched to typing on the computer.

Tell about the Beam Telepresence Robot in your current work.

KAVITA: The Beam has really helped me to go to different destinations remotely, and it's really given me the ability to really share my ideas, get to work with people in real time. And it's really helped me to gain more research collaborations, and that's really helped me because I can move around. I have the mobility and autonomy to move and look at things, especially when we're doing the robotic experiments where I have to observe if the robotic arm is moving or not. That's been really helpful. I'm really thankful to Suitable Technologies for helping me provide the accessibility to use the Beam

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What is the future of robotics and its challenges

KAVITA: My vision is that a person with a severe physical disability can independently achieve their tasks in activities of daily living with the support of a robotic system that they can accessibly control. It should either have artificial intelligence in order to learn about each individual user and accommodate according to their needs. That's my long-term goal.

I guess AI has not really focused on physical safety of the human-robot interaction. That area is still very young. So, my goal in my dissertation is to focus on that area and incorporate that knowledge into the interface that we develop. So, it's accessibility and machine learning that's involved that's going to be in the interface.

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LetMeTalk: Free AAC Talker

A free AAC talker app which supports communication in all areas of life and therefore providing a voice to everyone. LetMeTalk enables you to line up images in a meaningful way to read this row of images as a sentence

Suitable for autism symptoms and Aspergers syndrome, aphasia, speech apraxia, articulation/phonological disorder etc.

<http://letmetalk.info/support>

