# NYPL AT CONFERENCE AGENDA

# Saturday, October 21st

###

## 10:20 - 10:30 AM Welcome Address - 7A (and 7C)

# <https://nypl.zoom.us/j/84723988276?pwd=ZnZPai9DUWplQ0pnR2IvWS9GYlF5Zz09>

**Passcode: GN6VX0**

## 10:40 - 11:40 AM

### Room 7A: How AI is Transforming Accessibility - Mike Buckley

Artificial Intelligence Directed by the Blind - Progress and Possibilities with Be My Eyes: This session will explore actual use cases of AI in assisting people who are blind or have low vision via the Be My Eyes App in both personal and corporate customer service settings. Data on extensive beta tests will be shared as well as possibilities for future advancement of the technology, including AI powered wearables.

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### Room 7C: Cadence: a modular improvement towards STEM access for the blind - Peter Walters

The Cadence multi-line refreshable braille display from Tactile Engineering will be discussed and demonstrated. Special focus will be given to work done to allow the Cadence to function as a hand-held data logger that interfaces with scientific probes from Vernier Science Education with capabilities similar to the SciVoice Talking LabQuest from Independence Science, with the addition of the ability to create real-time tactile graphs of data as it is recorded based on an NSF SBIR grant. Plans to expand the scope of this work will be discussed.

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## 11:50 AM - 12:50 PM

### Room 7A: Tech in the DeafBlind World - Eleanor Coley-Brody and Bryan Ward

Participants will learn about the different types of vision and hearing losses within the DeafBlind community and subsequently the different communication methods for in-person technology instruction depending on their vision and hearing loss. Participants will also learn about the different adaptive technology equipment recommended based on a person's vision and hearing loss. They will also briefly learn about HKNC services for further AT training for staff and for participants.

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### Room 7C: Robots, Coding and the Braillenote Touch + - Joel Zimba

The KeyCode app for the Braillenote Touch + brings “Braille First” coding to blind students. The Python programming language can control Micro-Bit processors, which have sound, motion and robotics capabilities. Students progressing through the Micro-Bit coding lessons will learn coding while creating engaging and fun real-world projects

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## 12:50 - 1:45 PM Lunch on the 7th floor (No Streaming)

## 1:45 - 2:45 PM

### Room 7A, Lightning Talks

* **Oplay: soft tactile music interface** - Binyan Xu and Wei Wu

Welcome to OPlay, an exciting collection of tactile music interfaces! During this session, we'll provide a brief introduction to OPlay, its construction, and its functionality. Participants will have the opportunity to immerse themselves in the experience of creating and playing their unique music using the innovative tactile interface.

* **Tactile Robotics to Support Creative Making** - Elaine Schaertl Short, Kat Allen, Reuben Aronson

Prof. Short will present with her colleagues about her lab's work in assistive robotics and human-robot interaction. Attendees will learn about how assistive robots are being developed that can help make hands-on making and makerspaces more accessible to blind and DeafBlind people. We will present about both near-future projects like accessibility improvements to educational robotics technologies and lessons on accessible makerspaces, and long-term projects towards a future where robots can provide hands-on assistance with making, crafting, and building. The presentation will also include a discussion of the disability community in computing, including opportunities for students through AccessComputing.

* **Introducing SALS: Helping Students Get and Stay Involved in STEM** - Rosanne Hoffmann

During her session, Rosanne will discuss and demonstrate the Submersible Audio Light Sensor (SALS) probe and app. The SALS probe detects light, and a smart device (iOS or Android phone or tablet) with the downloaded app converts this to a tone. As the detected light level changes, corresponding changes in tone are emitted by the smart device. Light sensing detectors are not new, but SALS is unique in that the probe functions in liquids as well as with dry surfaces. This feature makes it useful during science activities such as pH titrations with indicator dyes as well as chemical reactions that form precipitates, both of which cause changes in light level in a reaction vessel. This allows students with vision impairment to participate more fully alongside their sighted peers. Session attendees will be encouraged to try the SALS probe and see for themselves how it works. Released for sale by APH in the fall of 2022, the SALS probe is Quota eligible, available for $53, and the app is free. Access more information about SALS at aph.org/product/submersible-audio-light-sensor-sals/.

* **Accessible Art using Visual Descriptions** - Spandita Sarmah

This research is about inclusive art practices and ways to make art experiences more accessible to everyone. It revolves around creating accessible Visual Descriptions and Tactile Art. This interactive session will involve engaging activities like creating works of art and making tactile versions of them. We will be describing artwork in our own unique ways, as well as exploring various ways of crafting and displaying art descriptions. Throughout the session, we will create different questions about artworks and answer them, that would lead to the creation of simple worded Visual Descriptions.

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### Room 7C: Accessible Co-Design Methods for Tactile Graphic Creation - Lauren Race

This session will cover best practices we've developed at the library for accessible co-design, led by Blind designers and can include sighted designers. First, we'll share our use case co-designing tactile graphics for AstroAccess. Then, we'll present our learnings, key takeaways, and best practices from developing a Blind-led co-design process. Next, we'll invite attendees to participate in a 30-minute hands-on co-design session. We'll introduce them to drawing boards (Sensational Blackboards) as a key accessible co-design tool. They'll be given a design brief and work as a team ideating, prototyping and illustrating—using drawing boards to co-design a logo, icon, or illustration. Finally, we'll invite all teams to present their final piece by giving a verbal description as they pass the co-designed tactile graphic to other attendees.

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## 2:55 - 3:55 PM

### Room 7A, Lightning Talks:

* **3D Printing Clubs at Schools for the Blind: What Has Worked and How We Are Collaborating to Create Solutions** - Caroline Karbowski

Volunteers from See3D, Inc., a nonprofit that organizes the printing and distribution of 3D printed models for Blind and low vision people, began the 3D Model Club at the Ohio State School for the Blind in 2018. They have made miniature models of their historic landmark model collection, advocated for screen reader accessible printers, visited a 3D printing factory and makerspace, held virtual meetings, and created student and teacher model requests. Attendees will learn how to begin and maintain their own 3D printing club, and there will be a discussion on best paths forward to make 3D printing more accessible for Blind and low vison users. They will also learn about how to get involved in See3D’s new 3D printing mentorship program for schools for the blind.

* **Speeding Through APH's Road to Code: A 15-Minute Guide** - Katrina Best

Join us for a 15-minute lightning round in which our presenter will identify solutions for teaching accessible coding offered by the American Printing House for the Blind (APH). Participants will hear about products and solutions on APH's Accessible Coding Roadmap broken down by student grade level and current coding ability. Soon to be released updates and products will also be shared. Participant feedback and questions are highly encouraged! Information on how to sign up to participate in Field Testing opportunities will also be shared.

* **iCanConnect Lightning Talk** - Bryan Ward

iCanConnect is free telecommunication equipment for DeafBlind or people who have combined hearing loss and visionless. The session will talk about what is iCanConnect and how DeafBlind can apply for this program.

* **Indoor Orientation & Navigation Technologie**s - Kiana V. Glanton

Safely navigating a new environment, both indoors and outdoors, can be a challenge for people who are blind or visually impaired. Technological development for orientation and navigation solutions are advancing and being tested at Lighthouse Guild’s Technology Center, a creative hub and space for researchers, innovators, healthcare professionals and most important the users of the technology itself. Over the past year, Lighthouse Guild has implemented orientation and navigation technologies such as Right Hear, GoodMaps and NaviLens. Currently the MTA is piloting using NaviLens, a QR code like symbol, detected by a smartphone’s camera, which gives the user information on the environment, signage, points of interest, distance, and guidance. As experts in its use, this presentation will discuss the NaviLens technology, demonstrate its use with a live demo including use by audience members who download the free application.

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### Room 7C: Discussion of Best Practices in Culturally Competent Audio Describer Training - Think Outside the Vox ([Sam Gould Kriveshko](https://docs.google.com/forms/d/e/1FAIpQLSekAQBwfgLqN2tbCnCRNCbBItdOkDY8v5zFqReO0dwrfLdZWQ/viewform), Cheryl Green, Thomas Reid, Christopher Robinson)

A need for both more and culturally competent audio describers in the region led to a collaborative effort to create and offer a training incorporating anti-ableist and anti-racist strategies. From identifying and working with stakeholders to focusing on BIPOC representation in more facets of the process and product, we’ll share our tips and lessons. The panel features representatives from all aspects of this training, with time for Q and A and reflection.

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## 3:55 - 4:10 PM BREAK (No Streaming)

## 4:10- 5:40 PM (90 minute sessions)

### Room 7A: Intro to Popular Generative AI Tools: Opportunities and Challenges for Accessibility - Dr. Cynthia Bennett, Dr. Maitraye Das, Dr. Michael Madaio, Dr. Abigale Stangl

Tools leveraging generative machine learning such as large language and text to image models are rapidly entering daily discourse and changing potentials and pitfalls for digital accessibility. In this workshop, we will introduce the audience to key terms used in AI discourse, to AI bias, and to such tools such as ChatGPT, Bard, and DALL.E. We will facilitate a dialogue with the audience about existing and possible use cases in addition to existing and potential limitations. We will then use these tools in real-time with the audience and reflect on their output combining accessibility and AI bias in conversation, and collaborative brainstorm how accessibility and disability communities can advocate for accessible and responsible applications. Finally, we will facilitate a discussion about existing resources and tools people can use on their own.

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### Room 7C: Design for the Future of Technology - Breanna Baltaxe-Admony, Tessa Eagle, Kate Ringland, Kevin Weatherwax

Unleash your inner designer to dream up new technologies! Join a team of accessibility researchers and designers for a 90-minute workshop to learn how you too can design access technologies. Attendees will learn about the history of assistive and access technologies and experience using a human-centered approach to discover, define, design, prototype, and implement new tech. First, attendees will learn the basics and a brief history of accessible tech (from white canes to automated captioning). Next, attendees will work in small groups to imagine futuristic access technologies and put their new accessible design skills to the test! Groups will work together to explore a design in detail before coming together to present their ideas and experiences. At the end of the session, participants may choose to share what they want technologists to know when designing for access. We're so excited to talk tech with you, hope to see you there! For folks who can’t stay the whole 90 minutes, worksheets will be available to take home or spend some time on during the workshop.

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# SUNDAY, October 22nd:

## 10:20 - 11:20 AM

### Room 7A: The Making of TMAP: A case study in building cool things you know nothing about - Josh Miele

It is sometimes more important to know where you're going than how to get there. This is the story of how I created a web-based resource for tactile maps without knowing much about geospatial computing or web development.

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### Room 7C: "Balancing Accessibility and Privacy for Blind and Visually Impaired Individuals - Gab DeCastro and Everett Elam

This session will discuss four strategies for safeguarding security and privacy in today’s ever-changing digital landscape. This presentation is facilitated by Everett Elam, CATIS, and Gab DeCastro, an accessible cyber security professional. Often, common security measures such as those used on large networks are inaccessible for users of assistive technology and people with disabilities. Many adapted solutions are less than ideal because they sacrifice the users privacy and independence for the sake of productivity. This is an interactive in-depth session for those who are Blind, low vision, DeafBlind, and those with developmental, cognitive or physical disabilities who desire to upgrade their understanding of digital security. All levels of experience are welcome. The presenters will showcase methods to empower individuals using assistive technology to safeguard their privacy. Participants will have the chance to ask questions about the challenges they encounter and collectively explore solutions as a group.

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## 11:30 AM - 12:30 PM

### Room 7A: A Community-Building Approach to Developing Teachers' Technology Proficiency - Ting Siu

Technology is critically important for blind and low vision students, yet it can be challenging for teachers to keep up with the latest updates in technology and understand how to teach technology effectively. This session will present a framework for building communities of practice that can support teachers' technology proficiency, and offer specific strategies to integrate technology as part of a holistic teaching practice.

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### Room 7C: Lightning Talks

* **Tactile Graphic Fabrication with Digital Embroidery** - Stefanie Koseff and Daniel Ryan Johnston

This project began as an effort to explore ways to create accessible interpretations of historical embroidered naval patches from the Intrepid Museum’s textile collection. We developed a low-cost, easily reproducible method for creating tactile graphics on paper using digital embroidery and tactile graphics guidelines to interpret these artifacts. This lightning talk would describe the design and fabrication process and would also provide many tactile prototypes (microcapsule and embroidered) to be passed around by participants. We would like to present this fabrication process as an additional method in a designer or educator’s tactile graphics toolkit. We would also provide a list of resources for participants who would like to explore this further.

* **A Cubed Design: Collaborating to Create a More Affordable Braille Display** - Caroline Karbowski

A Cubed Design (Accessible, Affordable, Accelerated Design) is creating a more affordable and repairable braille display with pathways to braille literacy, education, and employment. Attendees will hear about our progress, and have the opportunity to be part of the development by providing feedback on our braille cell prototypes and potential button layouts. This session will be manipulative and discussion based.

* **Tactile Graphics** - Danielle Montour, Minh Ha, Ka Li, Chancey Fleet

Tactile graphics are the key to image literacy for blind and low-vision people. Learn how various production methods work, find out how to find or create the tactile graphics you need, and meet tactile graphics practitioners who are pushing the bounds of what’s possible, from Lego diagrams to generative art.

* **Making STEM accessible and equitable for ALL learners** - Lara Rondberg

Learn about Benetech’s PageAI technology solution that converts inaccessible STEM content into inclusive learning materials for students with disabilities. PageAI identifies STEM content in books like equations, graphs, and images and transforms them into alternative formats like mathML. Powered by AI, the tool remediates inaccessible STEM content at scale, reducing time and cost associated with manual remediation and dramatically increasing the provision of learning materials for students with disabilities.

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## 12:30 - 1:25 PM Lunch on 7th floor (no streaming)

## 1:25 - 2:25 PM

### Room 7A: Get to Know Makers Making Change and the Open AT Movement - Loreto Dumitrescu and Chris Marotta

In this session, we will provide an overview of the open assistive technology movement and organizations working to support this mission. We will highlight Makers Making Change, an organization aimed to foster collaboration between makers, disability professionals, and AT users to increase access to AT either due to geographic or financial barriers. We will review the various available supports and projects.

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## Room 7C: Success Tech Stories of DeafBlind - Bryan Ward

Technology is important for DeafBlind for many reasons such as communication, work, travel, and more. This session will share some success tech stories of DeafBlind using technology. In addition, this session will share some resources for DeafBlind and professionals who are working with DeafBlind about technology programs and trainings.

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### 2:35- 3:35 PM

### Room 7A: Twelve Ways to Enter Text on an iPhone - Judy Dixon

Many people find entering text on an iPhone to be a frustrating experience. But there are many options available. This session will describe and demonstrate twelve ways to enter text on an iPhone using VoiceOver. The methods will include six ways from the device itself, such as braille screen input and handwriting on the screen as well as best strategies to optimize the onscreen keyboard experience; and six ways using external hardware devices such as a Bluetooth keyboard, braille display, the Hable One braille keyboard, and the new SensePlayer from Hims.

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### Room 7C: Empowering New Yorkers: A Glimpse into Cybersecurity, Data Privacy, and Emerging Technologies - Harry Halikias, Terrell Belin, William Marden

This session will discuss how NYPL provides and supports cutting-edge accessible/assistive technology for our patrons while protecting their digital safety, privacy and security.

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## 3:45 - 4:45 PM

### Room 7A: Openscape: travel awareness for all - Blake Oliver

In this session, we will explore the considerations and challenges involved in sustaining open-source projects, with a specific focus on Openscape, a 3D audio navigation and awareness app. Together, we'll delve into ways to make these apps more accessible for everyone, identify the essential capabilities they should possess, and explore how advancements in technology are shaping the next generation of these vital applications.

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### Room 7C: A Touch of Code: Creating Tactile Art and Functional Graphics Non-visually with SVG Code - Marco Salsiccia and Chancey Fleet

This talk will be a back and forth discussion between Marco Salsiccia and Chancey Fleet, describing the features, utility, and workflows of non-visual scalable vector graphics coding and tactile graphics production. This will include how SVG was identified as being a solution for blind designers to create and iterate on their own digital creations without a sighted illustrator, how SVG files are created and written, the applications of SVG graphics in the real world for a variety of careers and interests, how SVG can be used to create tactile art, graphics, and design, how the website blindsvg.com came to be as an overall tutorial, and will have a live code demonstration walking through an SVG file and how to build some common shapes, followed by Q&A.

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## 4:30 - 4:40 PM Closing Address - - 7A (and 7C)

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