

Collaborative Learning and Community Building

Tuesday, July 25th,
2023



CIRCLS

Center for Integrative Research in
Computing and Learning Sciences

Welcome! Please introduce yourself in the chat:

- Name, Role, Institution/Organization



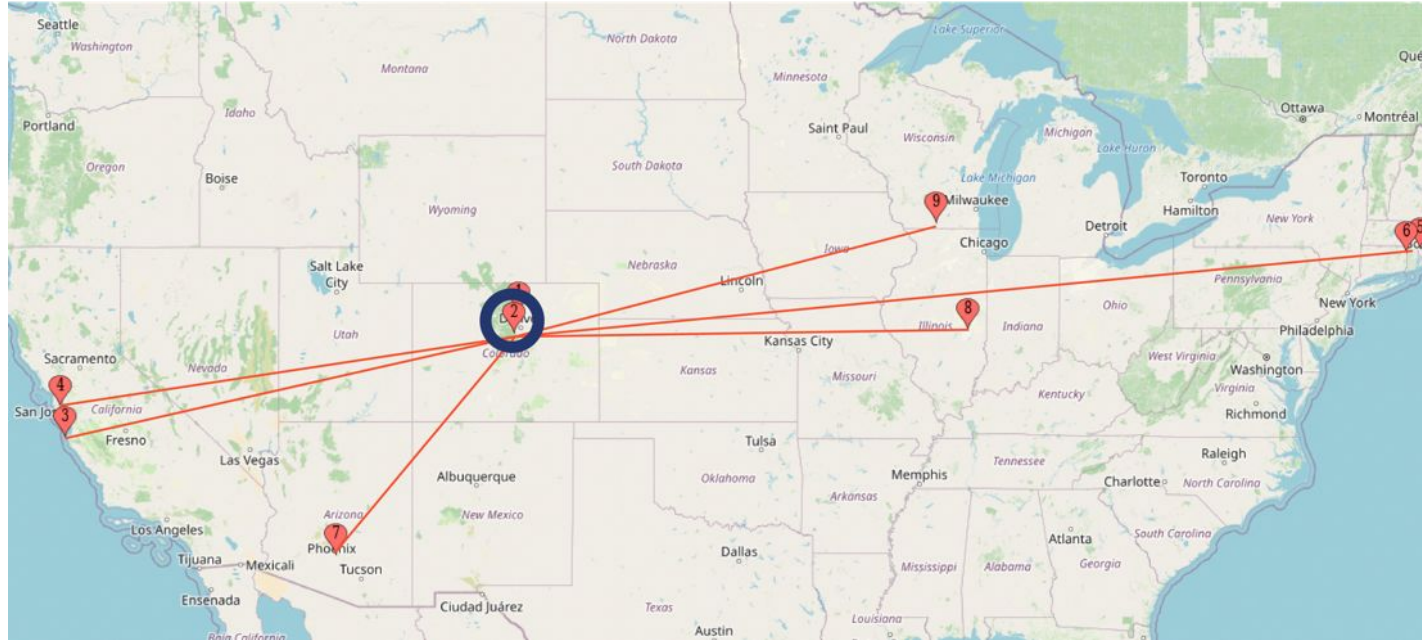
This work was supported by the National Science Foundation under grant number #2040753 and #2021159. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the NSF.



SRI Education



iSAT unites researchers from 9 universities with partners from academia, K-12, and industry

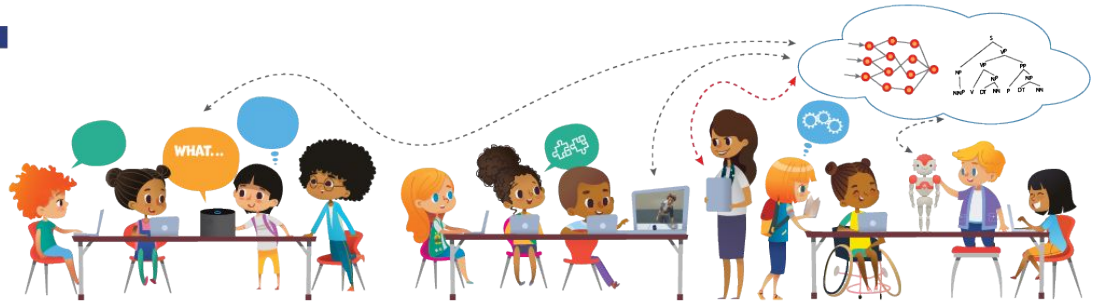


iSAT University Partners

1. Colorado State University
2. University of Colorado Boulder
3. University of California Santa Cruz
4. University of California Berkeley
5. Brandeis University
6. Worcester Polytechnic Institute
7. Arizona State University
8. University of Urbana Champaign
9. University of Wisconsin-Madison



iSAT researchers design and build AI tools as **social, collaborative partners** that help both students and teachers work and learn more effectively, engagingly, and equitably.



Question: How can we empower diverse stakeholders to envision, co-create, critique, and apply AI learning technologies for their schools and communities?

Question: How can we empower diverse stakeholders to envision, co-create, critique, and apply AI learning technologies for their schools and communities?

- Immersive STEM Curricula (Sensors, Self-Driving Cars, Online Games)
- Student Workshops
- AI Partners & Routines

Question: How can we empower diverse stakeholders to envision, co-create, critique, and apply AI learning technologies for their schools and communities?

- Immersive STEM Curricula (Sensors, Self-Driving Cars, Online Games)
- Student Workshops
- AI Partners & Routines



AI Partner

AI Partner

AI Partner

Question: How can we empower diverse stakeholders to envision, co-create, critique, and apply AI learning technologies for their schools and communities?

- Immersive STEM Curricula (Sensors, Self-Driving Cars, Online Games)
- Student Workshops
- AI Partners & Routines



AI Partner

AI Partner

AI Partner

**Single User
Uni-Modal**

Question: How can we empower diverse stakeholders to envision, co-create, critique, and apply AI learning technologies for their schools and communities?

- Immersive STEM Curricula (Sensors, Self-Driving Cars, Online Games)
- Student Workshops
- AI Partners & Routines



AI Partner

AI Partner

AI Partner

Single User
Uni-Modal



Question: How can we empower diverse stakeholders to envision, co-create, critique, and apply AI learning technologies for their schools and communities?

- Immersive STEM Curricula (Sensors, Self-Driving Cars, Online Games)
- Student Workshops
- AI Partners & Routines



AI Partner

AI Partner

AI Partner

**Single User
Uni-Modal**



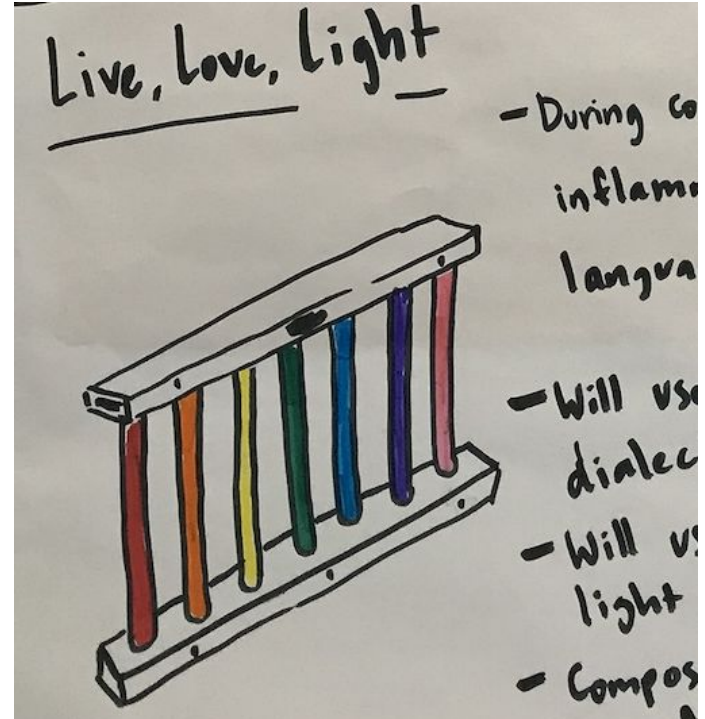
**Multi-Party
Multimodal**

“CoBi” - The Community Builder AI Partner

- Supports Relationship Building
- Monitors Student Discourse
During Group Work
- Displays Feedback on Community
Agreements or Class Norms
(respect, community, thinking, equity)
- Inspired by Student Ideas During
Workshop

“CoBi” - The Community Builder AI Partner

- Supports Relationship Building
- Monitors Student Discourse During Group Work
- Displays Feedback on Community Agreements or Class Norms (respect, community, thinking, equity)
- Inspired by Student Ideas During Workshop





“CoBi” - The Community Builder AI Partner

iSAT Community Builder **Student**

3:36 63:40

Establishing Our Community Agreements Revisit Our Community Agreements

Select Class	Select Lesson Live Session	2023-04-27T11:57:04Z -	CoBi Noticings: 
BEING COMMITTED TO COMMUNITY Be dependable Contribute equally Show that you care	MOVING OUR THINKING FORWARD Stay on topic Think outside the box Give everyone a chance to think		
BEING RESPECTFUL Don't put group members or anyone down with words Check to make sure everyone is ready to move on Giving everyone time to think	BEING EQUITABLE Let people say what they need Teach not tell Making sure everyone is on the same page		

“CoBi” - The Community Builder AI Partner

iSAT Community Builder **Student**

3:36 63:40

Establishing Our Community Agreements **Revisit Our Community Agreements**

Select Class	Select Lesson Live Session	CoBi Noticings:
BEING COMMITTED TO COMMUNITY Be dependable Contribute equally Show that you care	2023-04-27T11:57:04Z - MOVING OUR THINKING FORWARD Stay on topic Think outside the box Give everyone a chance to think	
BEING RESPECTFUL Don't put group members or anyone down with words Check to make sure everyone is ready to move on Giving everyone time to think	BEING EQUITABLE Let people say what they need Teach not tell Making sure everyone is on the same page	

“CoBi” - The Community Builder AI Partner

iSAT Community Builder **Student**

31:25 63:40

Establishing Our Community Agreements **Revisit Our Community Agreements**

Select Class	Select Lesson Live Session	CoBi Noticings:
BEING COMMITTED TO COMMUNITY Be dependable Contribute equally Show that you care	2023-04-27T11:57:04Z - MOVING OUR THINKING FORWARD Stay on topic Think outside the box Give everyone a chance to think	
BEING RESPECTFUL Don't put group members or anyone down with words Check to make sure everyone is ready to move on Giving everyone time to think	BEING EQUITABLE Let people say what they need Teach not tell Making sure everyone is on the same page	

“CoBi” - Under the Hood

Respect (“Here, I can help you”)

Community (“We did these right”)

Thinking (“Is there something that we missed?”)

“CoBi” - Under the Hood

Respect (“Here, I can help you”)

Community (“We did these right”)

Thinking (“Is there something that we missed?”)



“CoBi” - Under the Hood

Respect (“Here, I can help you”)

Community (“We did these right”)

Thinking (“Is there something that we missed?”)

Speech to Text transcription



“CoBi” - Under the Hood

Respect (“Here, I can help you”)

Community (“We did these right”)

Thinking (“Is there something that we missed?”)



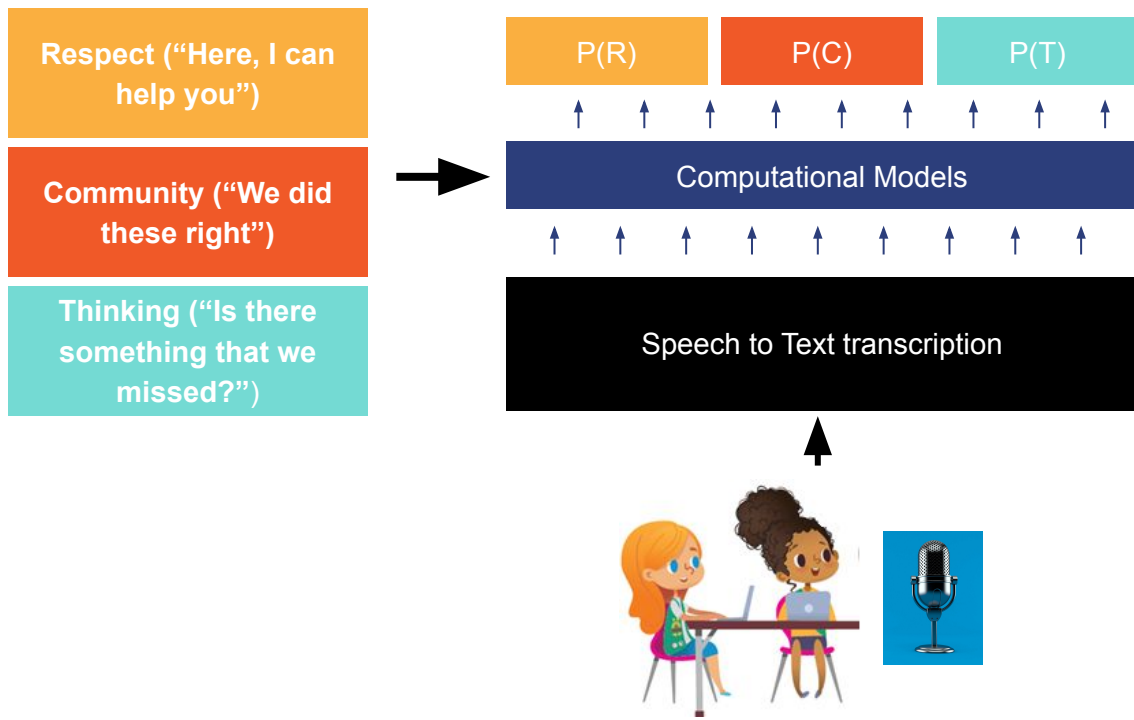
Computational Models



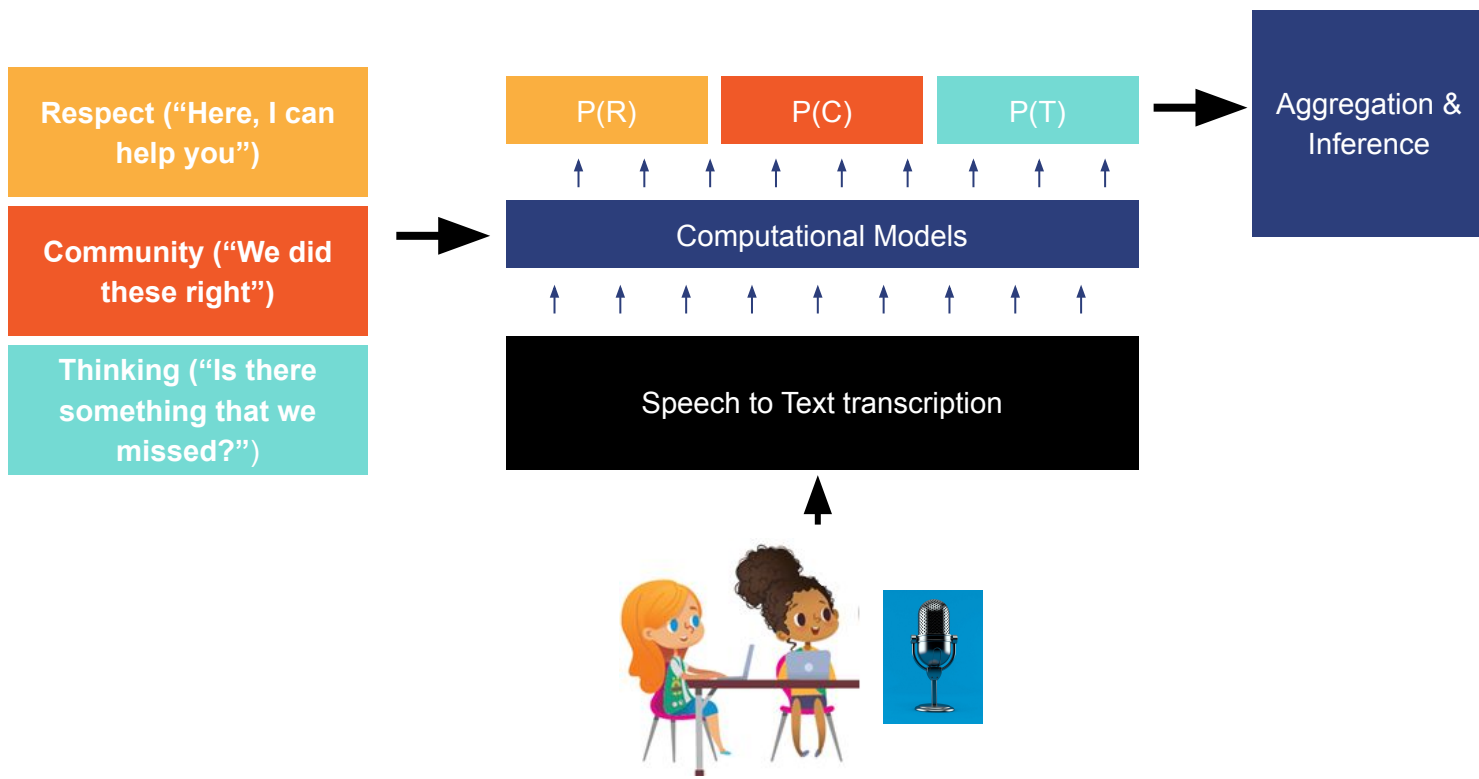
Speech to Text transcription



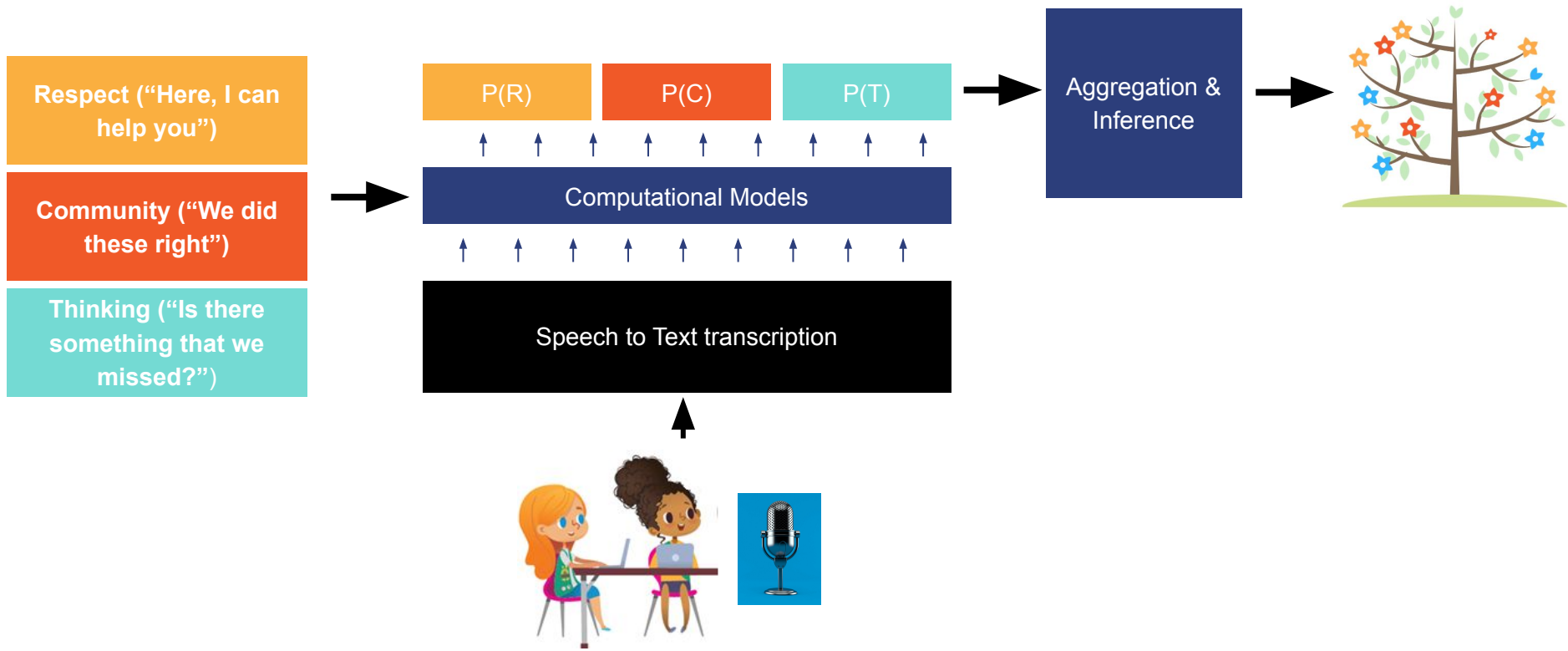
“CoBi” - Under the Hood



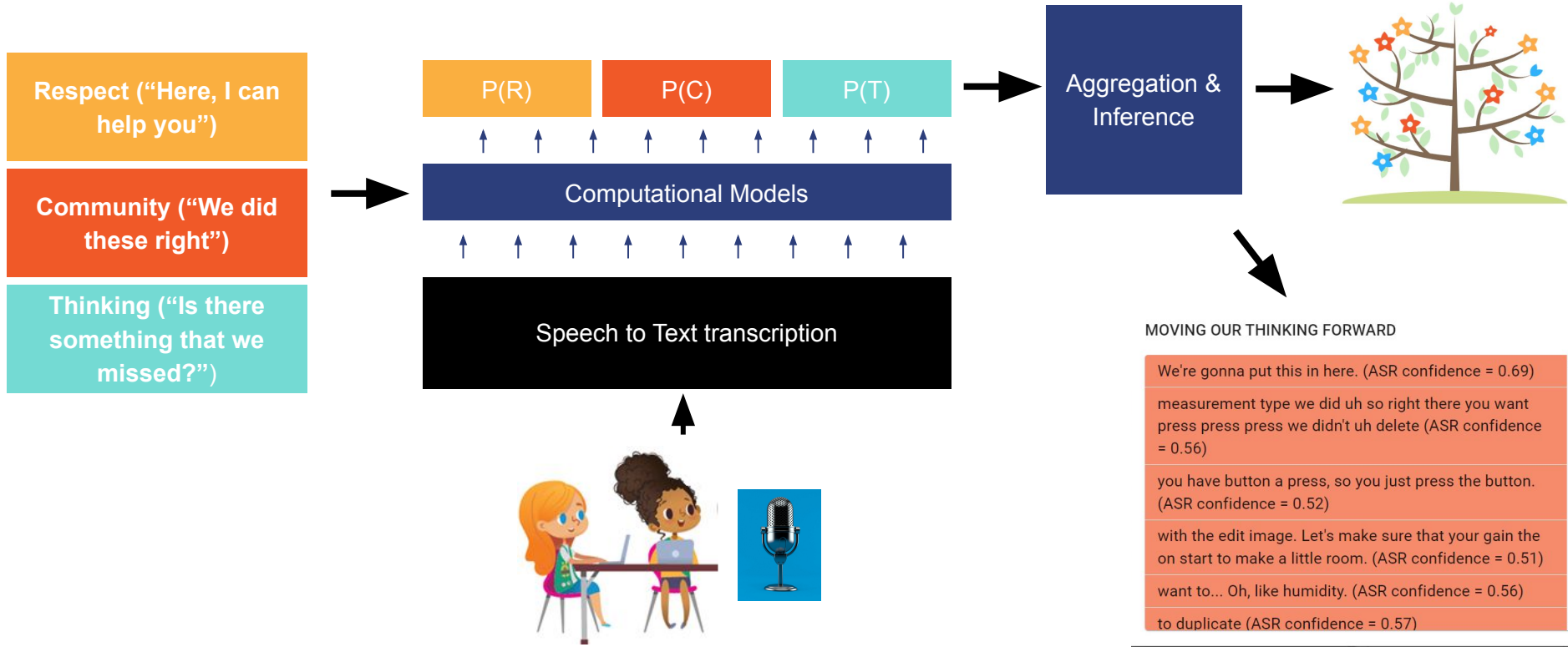
“CoBi” - Under the Hood



“CoBi” - Under the Hood



“CoBi” - Under the Hood



Discussion

What has been your experience with technology-supported student collaborations?

In what area(s) of teaching/instruction can you envision an AI partner supporting you and/or your students?

What should an AI Partner have or be able to do so that you and your students could trust its support or interactions? What should be off limits?

How can developers/researchers ensure that an AI partner augments and not disrupts teacher autonomy?



Summer Discussion Series

Upcoming Sessions

July 27th: Equitable and Ethical Practices and Interactions

August 2nd: Social Robotics

August 15th: Learning and Productivity



[Learn more and register.](#)

***Everyone is welcome! You do NOT need to apply for
or attend the convening to participate!***



CIRCLS '23 CONVENING

*Shaping AI and Emerging Technologies
to Empower Learning Communities*
November 2–3, 2023

[August 1st, 2-3PM ET](#) or [August 3rd, 1-2PM ET](#): Informational Session 2 --
What to expect at the CIRCLS '23 Convening

Thank you

&

How to Share This Presentation



If you share this content, please give us credit. The information presented in this document is licensed under a [Creative Commons Attribution 4.0](#) International License and may be adopted, remixed, or used as inspiration for your own innovation efforts. Follow these [attribution guidelines](#) as you use and share this information.