With the distribution of the COVID-19 vaccine gaining momentum, J-WEL's April 2021 Connections event (JWC) centered around preparing for a post-pandemic world. Three main themes emerged for the General Program: 1) Recovery from COVID-19; 2) Reconstruction of daily life and operations; and 3) Reconfiguration of education. J-WEL asked industry experts, MIT faculty and leaders, and J-WEL members to contribute to the discussion of how we can collectively help shape those outcomes. The conversations that emerged across all of these panels and workshops will help us inform the J-WEL programs and collaborative activities moving forward.

The emphasis of the pK-12 Collaborative’s JWC program was "Action Designing for Post-COVID." With this in mind, we developed sessions for three different working groups: 1) Teacher Education and Professional Development; 2) Remote Learning; and 3) Mental Health. We hoped to enable a deeper understanding in each theme and engage members in thinking about where we are, determining the bigger needs and the important players, and identifying opportunities for action. To guide members through the pK-12 program, we prepared reports relating to each theme:

- Professional Development and Teacher Education
- Remote Learning
- Mental Health and Social-Emotional Learning
On Monday, March 29th, we kicked off the J-WEL Connections pK-12 program, “Action Designing for Post-COVID.” Participants had the opportunity to meet our J-WEL pK-12 team and start the week with a design activity. Revisit the Introduction to Design Thinking Sprint presentation.

The pK-12 team used this time prior to the JWC General Sessions to lay the foundation for each theme that participants would build upon throughout J-WEL Connections. Experts in Teacher Education and Professional Development, Remote Learning, and Mental Health reviewed the current status and challenges of each topic through keynote speeches and moderated panel discussion. Graphic recorder Marsha Dunn created visual representations of these sessions, pictured below.

**Teacher Education and Professional Development**

In the keynote session, Prof. Fernando Reimers from Harvard University talked about “Preparing Teachers to Build an Education Renaissance after the COVID-19 Pandemic.” Prof. Reimers stressed the importance of community and connections for transforming education systems. He drew from two recent comparative studies which highlighted the crucial role of teacher preparation when implementing ambitious education reforms. Supporting teachers and developing teacher capacity helps achieve new curriculum goals. Looking towards the future, there are four requirements for implementing such changes: 1) a cultural theory of action; 2) a psychological theory of mind; 3) a professional theory of how organizations evolve, and 4) the institutional and political theories of implementation. Ultimately, we should be transforming education systems to help students develop the breadth of skills essential to participate civically and economically in a challenging and rapidly changing world.

Our panel on Teacher Education and Professional Development included Dr. DeLaina Tonks, Mountain Heights Academy; Vikas Pota, Varkey Foundation; and Dr. Janet Rankin, MIT with moderation by Vijay Kumar, J-WEL. With teachers coping with unprecedented situations during the pandemic, the need for professional development (PD) has become an important issue. Our panelists offered examples of their own innovative teacher PD work being done in a variety of environments. Some of their core suggestions included listening and responding to teachers’ and communities’ needs, learning from other teachers and other contexts, and creating a deliberate culture by hiring teachers with competency-based hiring and meaningful interactions based on your organization values.
Remote Learning

Now that we’re a year into the pandemic, educators have had time to test different strategies for remote learning. Prof. Justin Reich’s keynote session “Remote Learning: What do we know? What should we learn?” compared what happened over the past year with education during COVID-19 with what was “supposed” to happen. Existing challenges with student motivation and widening equity gaps were exacerbated with the move to online and other remote tactics. Teachers experienced a sense of professional loss as they adapted their curriculum for online. The importance of including voices from both students and teachers when considering new pedagogical practices has become clear.

For our panel on Remote Learning, panelists Prof. Susan Cusack, Lesley University; Dr. Nettrice Gaskins, Lesley University; Dr. Aaron Kessler, MIT; and Dr. Simona Socrate, MIT shared their experiences and expertise with how the impact of COVID over the past year has changed and shaped teaching and learning in pK-12 and higher education.
Mental Health and Well-being

The COVID-19 pandemic and the resulting health, education, and economic crises have negatively affected many people’s mental health and created new emergencies for those with pre-existing mental illnesses. Dr. Kimberly Schonert-Reichl from the University of Illinois at Chicago, our keynote speaker for “A New Kind of Fitness: Strengthening the Social and Emotional Competence, Resilience, and Well-Being of Children and Youth Through Social and Emotional Learning – Recent Science and Practical Strategies,” focused on the importance of teaching resilience to our children. The intentional integration of social and emotional fitness into the curriculum will require a systemic approach that considers the needs of educators, students, and their learning contexts.

During the panel “The Implications of COVID-19 on Mental Health,” Peter Senge moderated a conversation between three different scholars who have been conducting research in this and related topics. They shared some of the most pressing challenges and needs faced by educators and learners around the world, but also some of the positive impacts and successful approaches that are being used to address them. Dr. Heidi Kar of the Education Development Center kicked off the panel discussion on Mental Health by looking at the needs of the community around early trauma and how COVID-19 has increased mental health suffering. Prof. John Gabrieli from MIT shared the research on how mindfulness helps with both social emotional learning and cognitive development. Finally, Dr. Mette Böll from Center for Systems Awareness looked at the Compassionate Systems Framework as a way to work with people at all levels to develop a sense of community and reconfigure structure to provide the outcomes we want.
GENERAL PROGRAM

Plenaries
J-WEL Connections officially kicked off its first week of the General Program with plenary sessions. These General Sessions examined recovery from COVID-19, the reconstruction of daily life and operations, and the reconfiguration of education.

The General Program asked three core questions to examine the path to COVID recovery:

1. What does science tell us about the likely paths of recovery from the pandemic?
2. What do the experiences of the pandemic suggest about the reconstruction of our daily lives in the post-pandemic era?
3. How might we collectively reconfigure education in building a more resilient, equitable and prosperous society as we move forward?

These questions informed the main themes of the plenary sessions. During the first plenary session entitled "Recovery From COVID," we were excited to welcome panelists Dan H. Barouch, M.D., Ph.D., Barouch Laboratory; Arup Chakraborty, MIT; and Anette (Peko) Hosoi, MIT, with discussion moderated by Sanjay Sarma, MIT. They discussed the current challenges behind Covid-19 transmission and mutation, expectations for the vaccine roll-out, and potential scenarios for what a post-pandemic future might look like.

The second general session focused on "Reconstruction of Daily Life After COVID." We welcomed panelists Mark Silis, MIT; Krystyn Van Vliet, MIT; and Michael Wilens, Fidelity Investments, along with moderator Sanjay Sarma, MIT. They discussed the impact of Covid-19 on all aspects of society and daily life, from commerce and transportation, to the workplace and leisure activities.

Our third and final general session focused on "Reconfiguring Education in the Post-COVID Era." We heard from Dr. Ehab Abdel-Rahman, AUC; Prof. Christopher P. Monterola, Asian Institute of Management; Prof. Krishna Rajagopal, MIT; and Dr. Emiliana Vegas, Brookings Institution, plus moderator Dr. Vijay Kumar, J-WEL. They discussed new possibilities for the education ecosystem, and the initial steps J-WEL’s collaboratives can take down those paths during the coming year.

Afterwards, J-WEL members broke out into three groups to continue the conversation about the implications of Pedagogy & Practice, the Educational Ecosystem, and Operations. J-WEL staff members Dr. Anjali Sastry, Dr. George Westerman, and Brandon Muramatsu shared the outputs from each breakout when everyone reconvened for a final wrap-up discussion about reconfiguration.

pK-12 Workshops
For the pK-12 program, there were practical workshops tailored for each of the working group themes of Teacher Education and Professional Development, Remote Learning, and Mental Health. These workshops looked at examples of best practices.
STEAM Education
The Full STEAM Ahead (FSA) team discussed the design of remote learning offerings they produced last year in response to COVID-19. FSA offers remote outreach programs designed to provide virtual STEAM making opportunities for middle and high school students. The team shared the best practices, lessons learned, and current research about remote learning. This session asked participants how we can engage students in hands-on, maker activities in virtual settings, at scale. Over the summer, FSA ran two 3-week programs for around 340 middle school students from 47 Massachusetts towns. This past fall, FSA ran a 10-week virtual High School program with 600 students from Spain and 57 Massachusetts students.

Growth Mindset
In the pK-12 workshop "Fostering a Growth Mindset and Resilience in our Students," Dr. Lourdes Alemán, MIT discussed the importance of mindset for student achievement and self-efficacy, and how to cultivate a “growth mindset” in the classroom. Mindsets are the underlying beliefs that individuals hold about how adaptable human characteristics are. Not only do students who believe that intelligence and ability are largely unchangeable (a “fixed mindset”) respond to failure by withdrawing, disengaging, or persisting with failed strategies, but the overall organizational and classroom mindsets will influence student outcomes as well. To both cultivate and promote a culture of growth mindset as teachers, it is important to examine beliefs and inclinations about the malleability of human traits.

Digital Clinical Tools
In the pK-12 hands-on session, "Digital Clinical Simulations: Scalable, Adaptable Tools for Helping Teachers Practice High-Stakes Skills in Low-Stakes Settings," MIT Teaching Systems Lab staff members and researchers Dr. Christopher Buttimer, Dr. Joshua Littenberg-Tobias, G.R. Marvez, and Dr. Rachel Slama led the workshop participants through new digital clinical simulations that focus on core competencies, and reflected on how these tools might be adapted and applied at scale in their local contexts. These critical competencies include equitable teaching practices and critically evaluating media sources to identify misinformation. The tools from this session are open source and can be adapted for different locations and contexts.

Teacher Agency
This case study from the Connected Learning Initiative (CLIx), an award-winning, action research program for implementing ICT in education in India, examined teacher agency and its role in adaption of education innovations. Dr. Glenda Stump from J-WEL moderated the discussion between Omkar Balli, Dr. Meera Chandran, and Punam Medh from the Tata Institute of Social Sciences Workshop about teacher agency (in the context of implementing education innovation), how to recognize it, and how to select the relevant theoretical frameworks and corresponding data that would best support teachers’ development.
**Fostering Well-being in Schools**

For the session “Compassionate Systems Youth Ambassadors: a Student-led and Student-centered Approach to Fostering Well-being in School and Transform Education,” Antoine Béland and Gustav Boell from Center for Systems Awareness looked at how the Compassionate Systems approach can provide pathways for cultivating well-being at all levels of the system. Integrating mindfulness practices, insights in social-emotional learning, and systems thinking perspectives and tools can be implemented in diverse education contexts across the world. The session highlighted the student-led movement of Youth Ambassadors who trained and applied tools to develop projects for their schools and larger communities.

**A New Way to Assess**

Beginning with general ideas from the Science of Remote Learning, Dr. Aaron Kessler proposed alternative types of assessment structures for remote learning. Educators’ own key contextual factors should be connected with desired learning outcomes. This will provide a starting point for reimagining the way assessment can be done. Discussions around new and novel approaches to assessment, connections with how people learn, and next steps will be focal parts of the session.

**Design Thinking Exercise**

Using Design Thinking as a framework, participants collaborated in working groups to brainstorm member-led development projects and potential long term J-WEL strategic actions. Jessica Artiles, Founder and Chief Design Officer of Darte Design, encouraged participants to “Fail Early, Fail Often.” Mentors and experts from around MIT provided guidance and feedback to help participants get to the next iterations of their “playsentations.”

J-WEL set out to create a space for exploration of education’s most pressing needs, utilizing a four-day Design Sprint format where participants could create prototypes for affecting change.
within their ecosystems. In addition, participants provided insights around the needs of educators and identified five key themes for support:

1. Ecosystems and Mindset Shifts
2. Peer Relationships
3. Access to Support
4. Development of Tools
5. Well-being and Mental Health

Participants were grouped together in self-selected problem areas. Of the four teams, two teams developed prototypes for helping students find curriculum projects that match their passion areas. As an example, one team proposed a platform by which transformational feats were recorded and celebrated in the everyday classroom (represented in the form of a “brave knight”) while the final team laid out an approach by which to frame the value of Project-Based Learning for student growth.

Jessica Artiles offered this outlook about Design Thinking: “Engagement and agency, collaboration, ecosystems — all stakeholders need to see they have an obligation/responsibility to educate our students, empower students — passion, purpose, action. Systems thinking!”

Enabling conversations with people around the world with different perspectives was a powerful experience, especially when combined with Design Thinking methods.