

## 對話世界頂尖學者

# 新冠肺炎大流行下的中介溝通：媒體科技對日常生活的影響 Mediated Communication During COVID-19 Pandemic: Influences of Media Technologies in Everyday Life

Discussants: Dr. Prabu David and Dr. Leanne Chang<sup>1</sup>

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Dr. Prabu David



Dr. Leanne Chang

## Abstract

In this dialogue, Dr. David shares his views on how technology-mediated communication influences everyday life during the COVID pandemic in three aspects:

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education, well-being, and information. He describes the benefits of technology in bridging social and psychological distances and in seeking health resources. He believes that technology adds new dimensions to known practices and experiences of interaction, though it also creates concerns about information inequities. Dr. David suggests that more research should attend to how culturally-constructed risks are communicated and how misinformation and disinformation can be better managed and controlled at policy, group, and individual levels in a world with multiple realities. In closing, he emphasizes that we should not mistakenly assume that virtual interactions can replace the essential role of human connection in communication.

## **Introduction of Dr. Prabu David**

Dr. Prabu David is Professor and Dean of the College of Communication Arts and Sciences at Michigan State University. The focus of his research is on media and cognition with active projects in multitasking, mobile media and children, and catalyst thinking, which is a form of leadership style that he promotes. He has served as a principal investigator or co-investigator on projects funded by the National Cancer Institute, the Centers for Disease Control, the U.S. Department of State, and the Breast Cancer Research Foundation.

PD: Prabu David

LC: Leanne Chang

**LC :** **During COVID pandemic, many schools in the United States and around the world switched to e-learning. Could you share with me how you view the impacts of e-learning on education during the pandemic from the perspectives of a media scholar and a college dean?**

**PD :** Like everybody else, our faculty were given 24-or 48-hour notice to change classes from in-person to online. It was difficult and challenging, but they figured it out. One of the empowering things about humanity that we learned during the crisis is resilience. People do what is right to help others and to figure out how to do things in a new way. If you think about online classes, the transition occurred immediately. It wasn't always smooth. Some faculty were far along in terms of how to use online instructional tools. For others, we gave them a fair amount of training where they needed and they transitioned their classes to online. This was true not just for Michigan State University or the College of Communication, but across different universities; not only in the U.S. but around the world. It opened up new ways of instruction for our students. They came to realize that it's doable and it increased their self-efficacy as they were going along in using online instructional tools. These are the benefits. As we move forward, I think students and faculty will continue to use online instruction in interesting ways. It will continue to evolve and grow.

The other thing we noticed during this time is the loss of human connection. Even among students who are tech-savvy, they realized how much they care about being in the same room with other students. That give and take in looking a real person in the eye, asking them a question, and saying: "I don't understand, can you help?", that kind of interaction and attention is important. We didn't realize how important it was until we moved completely online.

**LC :** **As a researcher, you have conducted many studies with a focus on interactive media. How would you address the interactivity component in e-learning?**

**PD :** People who understood interactivity were able to perform extremely well under the constraints and circumstances. When you think about Zoom and Microsoft Teams,

we use those tools extensively and there are a lot of interesting benefits. Some people have figured out how to take advantage of various options that technology provides, but others who did not quite make it just recorded a lecture and posted it online. That's not distance education, but initially people didn't know what to do. Some of them were not using online platforms extensively. They were just using it as a place to post their lecture notes and so on. It was a little bit of a learning curve for some, that a module should be small and meaningful. You can't just record your lecture and post it online. That's not online delivery. They figured out how they have to make it into smaller learning outcomes and build tools around self-assessments, self-reflections, group engagement, and even some quizzes. The whole idea of one taking a concept and developing it into a learning module, that's what we were trying to push heavily through training for instructors. I believe we've made some progress. There're some beautiful sites and courses that have been developed over the last 15 to 16 months. In fact, on campus we celebrated some of the best courses that were designed during the pandemic.

**LC :** **The same is true in Hong Kong. We also experienced the transition from posting audio-recorded PowerPoint slides to Zoom-based lectures.**

**PD :** There're two things came up as a communication scholar for me. One was how the medium makes interaction very different. Especially early on, people were very clumsy. People were looking at themselves on the screen, and it's like, "oh my gosh, I don't like to see myself on the screen." But eventually we've gotten over some of those inhibitions. We do what we feel comfortable doing, and I think there's been a significant progress. Yet, people say Zoom fatigue is a real thing. At the end of the day, people feel really fatigued, and they miss that human interaction. There's a performative aspect in Zoom interactions, even on a one-on-one, because you always see yourself and you can't ignore it. I think perhaps it's a new way of performing. Perhaps for every meeting we are in, there is an aspect of self-presentation. In an online environment, human interaction is mediated, and perhaps technology adds a

new dimension to it that we haven't quite understood.

The second thing I would say is information inequities. Especially in the U.S., which is such an advanced country, people around the world may think that we have a lot of technology and everybody has access, but we don't. We find that a small but significant chunk of students, say, 10 to 15% of them, don't have access to high-speed internet. They don't have mobile broadband either because of lack of resources, or because they live in rural or underserved areas. These students struggled quite a bit. The digital and information inequity part is something that I've been thinking about during the pandemic because we are a university that prides itself in recruiting students from underserved communities and economically lower-income households.

I would also mention that we don't quite understand how to work online, especially with students. For example, faculty used the same procedures of conduct from in-person classes and implemented the same values and principles to online classes. In the beginning they would say everyone should have their camera on, but that's not easy for some students if they're in a one-bedroom apartment or in places like Hong Kong. Families, parents, and others are in the house and people are walking in and out. So how do they turn the camera on? For those kinds of simple things, faculty had to learn new protocols about how to deal with them. There are new policies that said, no, we can't ask students to keep their camera on. We can't assume that everybody has high-speed internet. We have to prepare for it. For instance, we subsidize students and give them access, computers, and help. Those are the things we picked up and addressed as part of the transition.

**LC :** **We've been talking about e-learning among university students. As you have conducted research on young children's use of interactive media for learning, how would you describe the similar and different factors that may affect learners of different ages?**

**PD :** One universal truth, you know, after many decades of media research, is that *media affect different people in different ways at different times*. It is that kind of context-

sensitive and situational finding that we found again with the transition to technology. Students who had this kind of ability to use online resources and to learn on their own continue to do well. In fact, some of them thrive under these circumstances. They like the freedom of just sitting at home on their own and doing the work. They did extremely well. There were students who did somewhere in between, and then you have those students who struggled quite a bit. Those were the students who liked the human contact and needed just a little bit of extra attention. It is that kind of differential impact that we saw during the pandemic for college-age students and I think the same thing applies at every age among every age group.

Let's look at the youngest groups, pre-schoolers, kindergarteners, or elementary school kids. They have unprecedented access and are immersed in technology. We noticed how early they get used to technology. What I found interesting was how they were using technology to communicate, because they had no other way to communicate. Now, a 3-year-old can just take up their parents' phone, hit WhatsApp, and start talking to grandma using WhatsApp and video chat. That is remarkable!

Some very interesting progress has been made for children, but then again it depends on the household. If the kids come from a household where both parents are working, or if there are problems such as loss of income, those kids struggle. In the U.S., the data suggest that there has been a pretty significant impact on pre-schoolers' development in terms of social interactions, strain on the parents, and the lower age. The impact on kids and families is something that we have to monitor. The data is still coming in.

**LC :** **Your 2017 tablet project in Lansing Schools suggests that play is an essential component in kindergarten education. Given that we are talking about pre-schoolers and learning, could you share more about your thoughts on the role of technology in fostering the youngest group's learning outcomes?**

**PD :** The children's play pad project was for all schools in the Lansing school district in Michigan, which is where we are. The majority of the students were from lower

socio-economic households. We gave them this interesting play pad that had cartoons and other kinds of content that taught science and technology. They truly enjoyed it. The moment you gave the play pad to them, they started playing with it and doing very interesting things. But can that kind of technology use translate to learning in the more formal sense? I think we need to rethink what we mean by learning. Particularly, most of us, trained as academics, are very traditional in thinking about what learning is. It is performance on a test, right? But incidental learning in many ways does not always manifest itself on tests. So, it is important to find measures and descriptions for those kinds of learning. That's one of the key findings of our play pad project.

When we gave kindergarteners this play pad, some said that these kids won't bring it back, they will lose it, and so on. But that wasn't the case at all. There were some interesting things that technology is very reliable and students were able to use it, even kindergarteners were able to use it. They didn't break it. There was very little loss or breakage. But when it came to the learning outcomes, we were unable to achieve our planned learning outcomes. Students started playing with the play pad, but play does not automatically translate to performance on tests. So, was that kind of play a good play? How do we demonstrate what was good and what was not productive? This was the key take-home from that study.

**LC : Turning back to e-learning, the pandemic poses educational challenges to not only pre-schoolers and children at younger ages but their parents. All my friends, particularly female friends, who have school-age children, struggle a lot because they need to balance between work and monitoring their kids' e-learning at home. Work-from-home is common during COVID. Some studies indicate that flexible working hours enable better work-life balance and greater job and life satisfaction. Others note the negative impacts such as interruptions from various tasks, ineffective self-regulation, and poor productivity. In the past, you conducted some studies exploring the relationships among multitasking, self-**

**control, and productivity (e.g., David et al., 2015; Xu et al., 2016). Could you share your perspective on this phenomenon?**

**PD :** There are all sorts of concerns related to work from home. The first concern is a clear gender effect and how universities are going to deal with them. In our college, two-thirds of our students are women and more than 50% of our faculty are women. Many junior faculty have childcare responsibilities or caregiving responsibilities. Sometimes, it's both, children as well as senior parents, particularly during COVID. There is a growing body of evidence that COVID has a disproportionate impact on women scholars, and that gap, which has been created over the last year and a half, will continue to persist. How do we address the gap between men and women? If there is an 18-month advantage to some folks, and others have been held back because of responsibilities, how will they ever catch up? As the function of caregiving has emerged during COVID, there are a number of challenges there.

The other one is the pipeline concern. People have to be thoughtful about how we're going to handle faculty with these disparities. For instance, if you're in a particular discipline where you need to collect human data, in-person interactions, and fMRI (functional magnetic resonance imaging) data and you couldn't collect it for more than a year, that's going to have a long-term effect over many years because you don't have any data in the pipeline. If you stop collecting data over the last 18 months, the challenge could be long-term in terms of tenure itself and other challenges such as career progress. I can talk a little bit about what we have done if you're interested.

**LC :** **Yes, please. I would like to know how your university identified ways to address these issues.**

**PD :** For caregiving responsibilities and so on, at Michigan State University, we have something called the COVID impact statement, and in that statement, people can state special circumstances that hindered productivity. Normally as a researcher, you have a research agenda. Let's say you charted out a certain path. In the COVID statement, you can say that was my original intent, that's my trajectory as a researcher, but



things happened. This is my new path, this is how I changed. Also, many of us were asked to create online courses. That took a lot of time. We all know developing an online course, particularly the first time, takes an extreme amount of time, and that takes away from research as well. You can document things like that. Then after that, the impact statement becomes part of the record. It can go to external reviewers and will be taken into consideration for annual reviews and tenure reviews.

The impact statement was one. Second, we have extended the use of funds from start-up accounts by additional 18 to 24 months. Third, we are considering a course release for faculty who had caregiving responsibilities. That gives them a little bit of timeoff that they need to attend to important responsibilities.

Fourth is some adjustments in their service requirements. They can take a little less service load. We want to help them get back on track if they have been seriously affected by COVID. There are downsides to this, of course. If you're not attending faculty meetings or if you're not participating in searches, then you may feel you're not part of the community. A faculty member can always say no, but these are some options that are being considered. We also set aside extra money to help people get back on track. We have made available some small grants to anyone who needs help.

**LC :** **During the lockdowns, many people find that their life is conditioned by technology. We rely on digital technology to work, stay connected with family and friends, and engage in recreational and even religious activities. Some of your research (e.g. Kim et al., 2015) addressed the relationship between technology use and depression. Could you share your insights on the relationship between technology-mediated communication and well-being? For instance, would you say that mediated communication is beneficial to our health? Or, it deepens our sense of isolation?**

**PD :** Yes, there are positives to interactions via technology. Even this morning, I was looking at WhatsApp for messages from India. As you know, this second wave has had a devastating effect on the country. But if you think about it, the help that

people are receiving is through social media. The government and the healthcare system have just broken down. So how do people get help? People get help through Facebook, WhatsApp, and Twitter. We know there is still a difference. People with affluence and people who are tech-savvy with connections are getting help, and the poor are being left behind. Despite all that, I think technology, even during this crisis, has been quite helpful in getting people connected and getting resources to people who need them. That's one example.

Another example is, can you imagine how difficult this virtual meet-up would have been if we had no Zoom and if we couldn't see one another? Life would have been very difficult I think. There are numerous ways that people have been trying to re-create what they lost during the pandemic. There have been a lot of creative ways for students getting together and playing online games together and people doing happy hours in some work situations. What they've tried to re-create might come across as artificial and not sufficient for some, but at least offers some measure of relief for others. I think what has become really apparent is the power of human connection and how much we really like it. My belief is, when we get back in the immediate future, there will be a realization about the power of human connection, and we will care more about it. But over time, in a year or two, we may fall back to our old patterns and that's what we should resist. That to me is the take-home message.

Depression has gone up among students. One of the biggest concerns during COVID is depression. At MSU, we're preparing for more psychological and counselling services on campus, not just for undergraduate students but for graduate students. They've lost job opportunities and postdocs have been taken away. Students are struggling across the board, and so are our faculty. So, of course, we need to understand psychological well-being and to address it in a thoughtful way. One important article recently came out in the New York Times by Adam Grant, an organizational psychologist who works at Wharton, the business school of the

University of Pennsylvania. He wrote about this phenomenon called “languishing” (Grant, 2021). Usually we think about flourishing as the ideal state, and then, there is depression when a person is not functioning at their best capacity. Somewhere in between is this idea of languishing. It seems that you’re functioning, you’re doing what is required, you’re not completely dysfunctional, but you’re not truly at your very best. That’s what he explains as the sort of malaise where we are during COVID. His thinking is that over time, we have to figure out a way to get from this languishing state to the more vibrant, productive state. The flourishing state is not just about being productive in a work sense but a state in which we feel good, we are psychologically healthy, we have social ties that we are nurturing, and so on.

Another positive thing about connection with technology is, a lot of folks, including students and others, have figured out how to deal with—not necessary loneliness, but being alone without others and how to entertain themselves. There’s also a lot of self-expression. People have used user-generated content to create interesting things such as TikTok to express themselves. I hope this use of technology can lead to better forms of expression, more interesting content, and more creative ways to explore how to express. Hopefully, this exploration will remain after we return to some sense of normalcy.

**LC :** **So, in general, would you say that technology is a neutral or powerful tool for enhancing people’s physical and psychological health during COVID?**

**PD :** I think it’s been extremely powerful. I give you an example. My parents are senior citizens. My dad is in his 90s and my mom in her 80s. Yesterday I was able to visit with a doctor over a video conference. They call it Teladoc or teleconference visits with the doctor. My dad had a little swelling in his feet. I was able to take a photo and even point the camera there, and the doctor was able to address the situation. How do you do this without technology? I think in the future, doctors’ visits, just routine visits, may be done online in some cases. Especially for people from vulnerable populations, such as senior citizens, babies and children, and other special groups

who do not have easy ways of transporting themselves, technology can help with how healthcare is administered. Can you imagine what we could have done without technology during this pandemic? Technology has been amazingly positive, but we have to be careful. There're all kinds of challenges about privacy, data use, digital rights, and other issues that we have to address. But broadly, technology has generated extremely positive influences during the pandemic.

**LC :** **Another challenge would be inequity, as many people do not have equal access to technology.**

**PD :** Yes, both of us are from countries where there is a lot of access to technology, but there are countries where that's not the case. When you think about those countries, for example, in India, not everybody has that kind of access in the rural areas. People may have a cell phone but not a smartphone to use the apps and so on. That is a big concern. Digital inequities have become very apparent. These days if you talk to anybody from India, most of them would know of somebody who has COVID or died from COVID. The last month has been quite devastating. The use of technology has been very effective for galvanizing support and getting medical supplies like oxygen and all kinds of help. Technology has become an important vehicle of social capital.

**LC :** **We can also think about technology use from another aspect, which is using technology to seek and share information. Some argued that the COVID pandemic is also infodemics. There are concerns about the spread of misinformation and disinformation on various digital media platforms. Could you share with us your opinion on this?**

**PD :** For this one, I have been thinking a lot about communication research in general. You go back to the ancient Greeks. Their concern was that groups of people who were uninformed could be easily persuaded by a sinister group that had some kind of devious objectives. Someone who wanted to manipulate a group of individuals and feed citizens false information could do so if they did it in an attractive way or

through fear mongering and some sensationalism. That's one of the biggest fears. For example, the sophists were capable of using interesting language to turn people's opinions. Over the last 2000 plus years, we've thought about communication in so many ways. Many thoughtful people have studied this and there are numerous explanations that we have come up with to address different kinds of communication. But what we have not done is, there is no formula for creating the right message to change hearts and minds, and I think that is the final frontier.

As for the infodemics you mentioned, mis- and dis-information has proliferated over the last year and a half, especially in the U.S., where we had not only COVID but a contentious presidential election, the Black Lives Matter movement and racial reckoning. You can look at all of these social movements together and you'd find that there was amid intense political polarization, mis- and dis-information just proliferated. Researchers have pointed out the robustness of the confirmation bias, that people believe what they want to believe by selectively choosing information. This was true for wearing masks, social distancing, and vaccinations. There're a lot of rumours about vaccines, that they're ineffective and cause side effects that are not true. There is no basic medical evidence for some of these things. Science is delegitimized through social media, and I don't know if we have found a good solution for that. That has left me with a sense of concern as an academic, especially as an administrator of a college for hundreds of researchers. Looking at these, what do we do? How can we make the world a better place? We know the answer. It has to be education and has to be through dialogue and understanding. We understand that. However, we have not been able to show concrete evidence that we have models that we can put in place and change outcomes.

**LC : In the past year, we saw the emergence of a lot of COVID-related publications. Some intended to address issues related to misinformation, disinformation, and the COVID infodemics. We also saw many funding opportunities. Could you share with us other salient research agendas, concepts, and general directions**

**that are worth further exploration?**

**PD :** COVID exposed known weaknesses, challenges, and strengths of the discipline. I think that's what has happened. A number of new studies were launched during COVID. One is risk communication. We know risk is culturally constructed. How do we address risk communication, particularly for preventive health practices and vaccines? About 30% of the public don't want to take vaccines, and there are different groups. One group is wait-and-see. They want to see if it's safe. Another group does not trust the authority. Then another group does not believe that COVID is real. How do we create health information campaigns around vaccines when there are about three or four different groups like these? How do we deal with these groups after 15 or 18 months? I find it so difficult.

The second one is online, how do we construct reality? How do we manage mis- and dis-information at different levels? At the policy level, you can't just turn them off and say, "oh you can't say these things." In a free society, there must be room for crackpot ideas to be expressed. Then, how do you differentiate between an unproven idea or just one person's opinion versus a known scientific fact? That is policy-level thinking. Then, we have to address some wrongs at the group level. What do we consider to be appropriate behaviours or appropriate messages online? How, as a group, can we practice some agency? Finally, at the individual level, we have to train people on what credible information is and what is not. These are profound challenges. We have to continue to build out on these pillars and different levels of analysis and foster understanding and empathy in the messages. I think trust is the key. How do we build trust in a world where there are so many realities?

**LC :** **In the past, you conducted many body image studies (e.g., David & Johnson, 1998; David et al., 2002) and health communication studies (e.g., David et al., 2004). However, your later research seems to focus more on interactive technology use (e.g., David et al., 2013, 2015). Could you share with me how you develop your research program and change your research interests over the**

years?

**PD :** Generally speaking, an academic's career spans three decades, sometimes even longer. Some people are very lucky. They find one topic and develop that one program of research over a full career. Various aspects of it. I think they are the most successful people. *It is amazing that they can find one topic that is evergreen and robust enough to be sustained over such a long period of time.* There are some people who do it extremely well. But even those folks have to change every few years to accommodate new variables because we study science, which is always changing. How do you be nimble to make those changes? I think I'm trying to do some of that. *Over time, every communication researcher has to understand what the changes are in society and how we incorporate them in our research.* When I started body image research, I did not intend to start there. It just happened that one of my graduate students was really interested in this topic. In terms of culture and gender, I am a guy from a different country and had no idea what body image was, but I had a theoretical framework to study it. My students and my co-authors really drew that kind of research. From there, I learned that health was an important topic to pursue. I still believe that and it is manifested in our college at Michigan State. I talk about *Healthy People, Healthy Planet* to highlight our research in health and environmental communication. We have to make a difference in the health and well-being of our people. That's where communication research can and should make a difference. Then I switched because I was interested in understanding the power of communication technology. I found myself always switching and doing different things at different times. I observed that in my students, too. That's how I shifted to multitasking and task switching as my research agenda.

**LC :** **Your experience could enlighten junior researchers, as some may wonder whether they could change their research program during career development. We are toward the end of the interview, any closing remarks that you would like to make?**

**PD :** We talked quite a bit about COVID. Technology can bridge gaps. Big social and psychological distances can be bridged. You and I are 12 hours apart in terms of time, yet we are on the same screen at the same time. That brings us closer in some ways, but we can't mistake this from the real thing of human interaction. To me, that is the big takeaway from COVID.



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