



US Women's Caucus at the UN CSW 67 NGO Forum

The Gender Digital Divide in the US Problems, Promises, Progress

March 14, 2023

President Susan Lee opened the virtual meeting at 2 p.m. Eastern and welcomed the speakers and guests. Susan described the Caucus briefly and invited attendees to join the Caucus.

Moderator Jennifer Rogers-Brown introduced the topic of the webinar and each speaker in turn.

The first speaker was **Kristina Ishmael** (Deputy Director, Office of Educational Technology, US Department of Education. Ishmael previously worked as an educational consultant and Senior Research Fellow at New America. As the leader of the Office of Educational Technology, Ms. Ishmael executes the office mission of developing national educational technology policy that enables everywhere, all-the-time learning and supports digital equity and opportunity.)

Ms. Ishmael began with a land acknowledgement of the Anacostan people who originally inhabited the territory now occupied by Washington DC. including her office across from the National Air and Space Museum. She explained her staff structure with lead staffer Bernadette Adams and a cohort of fellows. As the current leader of the Educational Technology (edtech) office, Ms. Ishmael uses her position as a "bully pulpit" both externally with states to encourage use of edtech and internally in the Department of Education to orient policy-makers to the use of edtech in the classroom and planning.

Ms. Ishmael described overall aspects of her office's mission such as developing policies and practical guidelines for US educators and leaders. She mentioned the National Educational Technology Plan that is updated every five years. She explained that her office makes strategic investments in design and development to help educators and policy-makers think about edtech through workshops, conferences, etc.

To demonstrate the growth in educational technology, Ms. Ishmael cited evidence by an edtech research firm, Learn Platform, about the use of edtech tools in school districts today. In 2018, 543 edtech tools were in use in school districts (Google docs, Google drive, slide presentations, learning games, virtual field trips, podcasts, blogging, etc.) By 2022, 1417 edtech tools were in use. In the 2021-2022 school year, K-12 students used an average of 143 tools over the course of the year, and teachers used 148.

The Office of Educational Technology has three main priorities:

1) Digital Inclusion: ensuring devices and connectivity in school and home for all students, and fostering digital literacy by both student and teaching staff. For instance, in the pandemic, the Department of Education distributed "hot spots" for students who were not connected to the Internet.

A problem they discovered, however, was that parents did not always know how to use the hot spots - often the kids were much more knowledgeable.

2) Learning Ecosystems: ensuring that digital infrastructure exists in schools to support learning, and orienting teachers and educational leaders about the use of edtech in learning. Families and communities need to be brought into the picture as well.

3) Emerging Trends and Technologies: her office tracks innovative uses of edtech in learning, addresses responsible use and design of technologies, and gathers empirical evidence to guide policies and practices. For instance, the office is looking at artificial intelligence (AI) and how it can be used ethically.

The Bipartisan Infrastructure Bill of Nov. 2021 set out principles of digital equity and inclusion and provided funding to realize the accessibility and infrastructure needs of school districts and communities.

The National Educational Technology Plan is currently under revision. The last one was issued in 2017, and the target date for the revised plan is 2024. Ms. Ishmael's office is considering issues such as technology interoperability and multilingual accessibility. They aim to close the digital access divide, the digital design divide, and the digital use divide. In terms of use, some students engage creatively with possibilities of educational technology while other students are more passive in accessing online content.

Ms. Ishmael's office is engaged with the White House Task Force to Address Online Harassment and Abuse, chaired by the White House Gender Policy Council. They want to address some of the downsides of technology such as online misogyny.

To improve technological equity, Ms. Ishmael's office initiated Digital Equity Education Roundtables (DEER) to conduct national conversations about tech for communities of color, native and rural areas, etc. The initiative considers access, affordability, and adoption of edtech. To improve access in low-income areas, for instance, the federal government offers a \$30 per month subsidy to eligible households, and many internet service providers (ISPs) have agreed to provide internet to those households for \$30 per month. On tribal lands, the subsidy increases to \$75 per month. Ms. Ishmael noted how the COVID pandemic moved accessibility discussions from aspiration to emergency, jumpstarting these efforts.

Our second speaker was **Dr. Carmela Roybal** (Research Professor and Executive Director, Native American Budget and Policy Institute, University of New Mexico. Dr. Roybal's academic specialties include medical sociology, bioethics, and public health with a focus on race, gender, and health disparities, particularly among indigenous peoples of the United States and globally.)

Dr. Roybal began with a land acknowledgement of several New York Indigenous groups including the Lenape, Erie, Iroquois, Mohegan, Haudenosaunee, Seneca, and others. She explained that there are a variety of terms used for Indigenous peoples in the US including Indigenous peoples, First Nations, Native American, American Indian, and Alaska Natives. In all there are 574 federally recognized tribes in the US and many more that are not recognized. There are about 5.2 million Indigenous persons in the US today, or about 2.6% of the US population (Census 2020). That number contrasts with the population prior to colonization with estimates as high as 112 million Native Americans on the territory now known as the United States.

Dr. Roybal briefly described some historical moments for Native Americans such as the 1920 Indian Citizenship Act that conferred citizenship on American Indians. In 1924 Native Americans were granted the right to vote; however, they were still not able to vote in the majority of states. It wasn't until 1962 that Native Americans gained the right to vote in all states. In addition, some states restricted Native Americans from running for office for many years. In South Dakota, Native Americans were allowed to run for county office only in 1980. In 2013, the Supreme Court allowed states to pass voting laws without supervision, taking away federal protections of voting rights for Native Americans and others.

Native Americans have been active participants in the US military, serving in the Armed Forces at a greater rate than all other racial groups in the United States. Almost 20% of all Native American service members are women. In World War II, over 800 Native American women served overseas. Dr. Roybal explained that the women see the military as a way forward with educational and family support benefits.

Today Native American women and girls are hyper-marginalized in the US. As of 2017, there were 5,712 missing and murdered indigenous women reported. In New Mexico, where Dr. Roybal is a professor and research institute director, Native American women have the highest rate of being victims of homicide of all racial and ethnic groups. New Mexico's urban centers have some of the highest missing person's cases in the country. Between Albuquerque, Gallup, and Farmington, there were 715 missing Indigenous person's cases reported from 2014-2019.

Native American women and girls in New Mexico die at earlier ages than other groups, with a female child mortality rate of 55.6 per 100,000 children under age 5. Native American children of all ages in New Mexico have a death rate of 37.2 per 100,000, much higher than the non-Hispanic White rate of 19.4 per 100,000 (New Mexico Vital Records 2016).

Native American women earn degrees in STEM fields at lower rates than other women and men. For instance, just 540 Native women earned bachelor's degrees in STEM in 2021. Only 14 Native American women earned Ph.D.'s in STEM fields, compared to 4098 White female STEM Ph.D. recipients.

Internet access is low for tribal areas in the US, with no broadband access in 68% of tribal areas. In New Mexico, 80% of tribal areas have no broadband access. The poor Internet access negatively impacted the 2020 Census submission rate for Native Americans.

Employment of Native Americans was drastically affected by COVID. The unemployment rate for Native Americans in New Mexico, for instance, rose from 4.8% in February 2020 before the COVID pandemic began, to 11.3% just two months later, in April 2020. Native Americans suffered disproportionately from COVID, with 3.5 times more COVID cases than white Americans. Cancer rates for Native American women are higher than whites as well. "Closing the divide saves lives," Dr. Roybal emphasized.

Our third speaker was **Dr. Bethlehem Gronneberg** (Founder and Chief Executive Officer of uCodeGirl, a social enterprise designed to provide opportunities and exposure to computational design thinking skills, entrepreneurial mindset and leadership traits. Dr. Gronneberg is a software engineer and social entrepreneur with a vision to exponentially expand the inclusion of diverse voices in the technology workforce.)

Dr. Gronneberg began her presentation with reference to the impact of technology of society through the four "industrial revolutions," i.e. steam, electricity, computing, and artificial intelligence. No

country has closed the gender gap, she noted, and progress has been hampered by ignoring half the world's talent. There is a technology gender gap from childhood to the adult workplace, with girls less interested in tech in childhood (35% to 65% for boys). They earn fewer tech degrees at the high school and college level (18% to men's 82%). Only 25% of tech positions are occupied by women in the workplace, and just 11% of tech executives are women. Female students leave computer science majors in college at a high rate, mostly in the first two years. Overall, girls and women receive less encouragement to pursue computer science from schools, family, and society.

Dr. Gronneberg herself played an important role in the entry of women into computer science in her home country, Ethiopia. She was a shy college student in Ethiopia who loved math and was majoring in statistics when she was chosen as one of the first two women in her country to study computer science. At the time, she had never seen a computer! She got her degree in statistics and computer science, and worked for the UN in Ethiopia, developing the very first website for the UN Economic Commission of Africa (UN-ECA). Later, she came to the US, got a Ph.D. in computer science, and became a software engineer.

Today Dr. Gronneberg works especially on the gender gap and diversity in technology. "People who create should mirror people who consume," she feels. She looks at software products such as facial recognition tools, automatic sensing devices, health monitoring devices such as watches, and self-driving vehicles to assess whether they are designed for lighter skin only or can perceive darker skin tones as well.

To encourage girls to enter computer science, Dr. Gronneberg created a foundation called uCodeGirl. Her aim is to empower, equip, and engage girls to enter the field and make a difference. Part of her program is to hold summer technology mentorship camps for girls, Cracking the Code, to create a space for them to grow and thrive in the technology field. For the program in Fargo, North Dakota, she partnered with Best Buy and the Women's Foundation of Minnesota, and girls from across the US have attended her camps. They learn how to solve real problems using technology. She has held summer camps also in Ethiopia, and she arranges for girls to the two locations to talk with one another. Here is her Ted Talk about her innovative program: <https://www.youtube.com/watch?v=89EnwaPPrjE>

Dr. Gronneberg accessed our CSW event from her work site in Ethiopia and unfortunately, the connection was interrupted before she could complete her talk and participate in the question-and-answer period. However, she has shared her slide presentation with us (https://www.canva.com/design/DAFb3m0fgtQ/czhGDcp9zMaOf080y-8ZzA/view?utm_content=DAFb3m0fgtQ&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton).

In the **questions** following the presentations, Kristina Ishmael talked about data collection on education under the Department of Education. The National Center for Education Statistics collects a lot of national education data. Here is an example about computer use:

https://nces.ed.gov/programs/digest/d21/tables/dt21_702.10.asp?current=yes

However, some data is restricted and can only be collected by states.

The US Secretary of Education Miguel Cardona has emphasized the importance of having equitable access to learning by every child. As part of that goal, the Office of Educational Technology

has developed open educational resources that are available to all for free, without copyright restrictions (see <https://tech.ed.gov/open/>).

Dr. Carmela Roybal answered questions about access to the Internet for Native Americans in the US. She said that access is a big issue, even with satellite access due to affordability. There are also issues with running cables across tribal land.

Educational equity is a problem in New Mexico where many low-income and indigenous students have had very poor access to quality schooling. A suit was brought against New Mexico, called Yazzie/Martinez, to force the state to provide a quality education to all as a constitutional right. Courts have placed the state under supervision to ensure that all children receive a proper education. Here is more information (<https://www.nmsba.org/wp-content/uploads/2019/12/Yazzie-Martinez-Lawsuit-Update.pdf>).

Dr. Roybal's policy institute is part of the coalition working for better education for New Mexico students. A result of the coalition effort is that public college tuition is free in New Mexico for all students (<https://www.the-journal.com/articles/new-mexico-passes-free-college-tuition-law-for-all-residents/#:~:text=The%20New%20Mexico%20free%20college,Utes%2C%20Southern%20Utes%20and%20Navajo>). Bordering Native American tribes are eligible for free tuition as well.

The session ended at 3:30 p.m. and Susan Lee thanked the speakers and guests for attending the rich presentation on the gender digital divide in the US. Dr. Roybal was able to stay after the conclusion for an extended discussion on indigenous peoples in the US.