



Silicon Flatirons Annual Conference "Technology Optimism and Pessimism" February 9-10, 2020

Outcomes Report

Introduction and Summary of the Conference

On February 9-10, 2020, Silicon Flatirons convened its annual flagship conference in the Wittemyer Courtroom of the Wolf Law Building, University of Colorado Boulder. The event hosted over 200 leaders in government, business, academia, and civil society, as well as students from the University of Colorado and Colorado Law. Experts came together to discuss questions and ideas raised by "Technology Optimism and Pessimism".

The two-day conference began with a morning dedicated to in-depth examinations of developments in the technology sector that inspire optimism and pessimism. The latter half of the day was spent on deep dives into technology and democracy as well as the use of business as a force for good in society. Day two featured a two-part panel that facilitated a thorough analysis to identify key themes from the first day and discuss potential paths forward.

Between these panels, five keynote sessions added additional depth and color to the conversations. Congressman Joe Neguse, an alum of Colorado Law, engaged in a discussion with BEN Colorado Director Kay Henze on his own approach to the technology sector and the work of the House of Representatives Judiciary Committee, while private sector veteran and consultant Anne Toth offered an optimistic vision of the future. Colorado Attorney General and Silicon Flatirons founder Phil Weiser led a riveting conversation with Futurist and Author Karl Schroeder, Historian Patty Limerick, and Professor Casey Fiesler. Finally, FCC Commissioner Mike O'Rielly discussed the role of government in a world of rapidly evolving technologies while FTC Commissioner Rohit Chopra, in conversation with Professor Nathan Schneider, analyzed what remedies are — or should be — available when companies engage in bad behavior.

Conference Line Up

Keynote Address

U.S. Congressman Joe Neguse

The Once and Future Promise of Technology

Margot Kaminski

Associate Professor, University of Colorado Law School;
Privacy Initiative Director, Silicon Flatirons

Newton Campbell Jr., Ph.D.

Senior Principal Solutions Architect, SAIC; Senior Computer Scientist, NASA

Alan Davidson

VP of Global Policy, Trust, & Security, Mozilla

Donna Epps

Senior Vice President for Public Policy & Strategic Alliances, Verizon

Andrew McLaughlin

Partner, Higher Ground Labs

Deji Bryce Olukotun

Author; Legal Counsel, Policy, & Social Impact, Sonos

Tech's Perils and Pitfalls

Blake Reid

Associate Clinical Professor, University of Colorado Law School; Technology Policy Initiative Director, Silicon Flatirons

Brittan Heller

Counsel, Foley Hoag LLP

Dave Maass

Senior Investigative Researcher, Electronic Frontier Foundation

Francella Ochillo

Executive Director, Next Century Cities

Jamie Tomasello

Head of Trust and Compliance, Duo Security

Richard Whitt

President, GLIAnet

Keynote Panel: A Conversation About the Future

The Honorable Phil Weiser

Attorney General, State of Colorado; Founder & Executive Fellow, Silicon Flatirons

Casey Fiesler

Assistant Professor, Information Science, University of Colorado Boulder

Patty Limerick

Faculty Director & Chair of the Board, Center of the American West, University of Colorado Boulder

Karl Schroeder

Futurist & Author

Debate: Tech is Undermining Democracy

Pierre de Vries

Spectrum Policy Initiative Co-director & Executive Fellow, Silicon Flatirons

Andrew P. Bridges

Partner, Fenwick & West LLP

Cindy Cohn

Executive Director, Electronic Frontier Foundation

Ahmed Ghappour

Associate Professor, Boston University School of Law

Paul Ohm

Professor of Law & Associate Dean for Academic Affairs, Georgetown Law

Tech Entrepreneurship for Good

Brad Bernthal

Associate Professor, University of Colorado Law School; Entrepreneurship Initiative Director, Silicon Flatirons

Rebecca Arbogast

Sr. Vice President, Global Public Policy, Comcast Corp.

Ryan Martens

Board Member, Founder, Investor, & Mentor

Balan Nair

President & Chief Executive Officer, Liberty Latin America

Ellen Satterwhite

Vice President, Glen Echo Group

Anne Toth

Chief Executive Officer, Privacyworks

Keynote Address

Anne Toth

Keynote Address

Commissioner Michael O'Rielly, Federal Trade Commission

Building the Future We Want, Parts 1 and 2

Harry Surden

Associate Professor, University of Colorado Law School; AI Initiative Director, Silicon Flatirons

Kristelia Garcia

Associate Professor, University of Colorado Law School; Content Initiative Director, Silicon Flatirons

Lisl Brunner

Director of Global Public Policy, AT&T

Gabriella Coleman

Wolfe Chair in Scientific & Technological Literacy, McGill University

Chris Lewis

President & Chief Executive Officer, Public Knowledge

Berin Szoka

President & Founder, TechFreedom

John Verdi

Vice President of Policy, Future of Privacy Forum

Keynote Address

Commissioner Rohit Chopra, Federal Trade Commission

Summary of the Conference

Topics in Optimism

Conference speakers identified a number of technologies and developments that gave rise to optimism. Everything from CRISPR to artificial intelligence were discussed as examples of technologies in which the speakers found excitement. Other technologies identified included medical devices, such as those used for medical imaging, 5G, cryptography, voice-enabled technologies, and technologies that enable telecommuting.

The overall idea that technology increases individual and organizational efficiency was brought up in several comments. Some speakers praised general approaches to technology, including open source, open data, and decentralization. These qualities were pointed to as helping expand the reach of important tools, promote greater transparency and accountability, measure human rights compliance, and promote democracy.

John Verdi stated that we are “safer and more creative” than ever. Chris Lewis noted that technology gave a voice to speakers who had not previously been heard, and Berin Szoka elaborated that tech helped marginalized communities. Newton Campbell discussed how paradigm shifts have promoted better uses of technology, specifically, greater cross-sectoral and global cooperation and more awareness of its control and distribution. During the keynote panel author Karl Schroeder referenced that technology had democratized creativity and Lisl Brunner explained that technology could make everyone’s world more meaningful.

In her keynote presentation, industry veteran Anne Toth offered a range of ways tech could improve cities, including increased productivity, efficiency, and improving or saving human life. FCC Commissioner Michael O’Rielly continued on this theme, explaining how certain tech, like artificial intelligence, may provide full or partial solutions to long-time problems, such as access to and organization of information as well as long-distance communication.

Topics in Pessimism

As opposed to the discussion around optimism, most pessimistic views involved uses of technology or questions about tech companies rather than general principles. Conversations included disinformation, harassment and doxxing, access to tools and services, lack of autonomy, uneven power dynamics, and problems related to engagement-driven business models. Francella Ochillo discussed the problem with communities who are disconnected from technology, and therefore are not only omitted from participating in conversations about the future of technology but aren’t even considered when those decisions are made. Jamie Tomasello also discussed the lack of inclusion in tech, and the lack of consideration around massively different threat models, specifically around abuse.

Lack of transparency may also exacerbate tech’s negative consequences. Anne Toth predicted that a positive future may only be achievable if data privacy and ethics issues are addressed. Using an example of drones in neighborhoods, she illustrated how the potential social impacts of tech could not be ignored in development.

Ideas, Questions, and Solutions

Theme 1: Market Concentration and Power Dynamics

The conference began and ended with discussions of market power. Representative Joe Neguse discussed the work of the House Subcommittee on Antitrust, Commercial, and Administrative Law, which hosted a field hearing at Colorado Law in January 2020 on Online Platforms and Market Power.¹ Congressman Neguse explained how a lack of

¹ <https://judiciary.house.gov/subcommittees/antitrust-commercial-and-administrative-law-116th-congress/>.

competition can be seen in daily life and how the inquiry is meant to ensure that market concentration does not inhibit new entrants. Then, in the closing keynote, Federal Trade Commissioner Rohit Chopra talked about his own focus on ensuring new businesses are able to enter the market without “permission.” One of the central questions, he described, is if market power is deterring investment. Commissioner Chopra urged experts to look to lessons from other industries, positing that there are common tools to evaluate and respond to market dominance.

Richard Whitt touched on this theme when he called for action to correct market power imbalances. Dave Maass raised questions on tech as a force multiplier for government and law enforcement, asking if it tilted the balance of power further away from individuals and communities. By contrast, Professor Ahmed Ghappour discussed how advancements in technology have involved a “profound empowerment” of individuals in the form of communications and networking. Balan Nair and Rebecca Arbogast discussed the role of mergers and acquisitions in investment strategy, highlighting the importance to innovation in having these options as incentives for development, while also questioning the ultimate impact on consumers.

Theme 2: Access to Tools and Technologies

During the course of the conference there was ample discussion of the link between access to technologies and the ability to enjoy the benefits of those technologies. Congressman Joe Neguse pointed out how students in rural communities may turn to public internet access points where the infrastructure for home access doesn't exist. Further, as raised by Francella Ochillo, when certain populations do not have access they are also omitted from consideration in the design of new tools and technologies. Andrew Bridges discussed the value of tech as a tool for mobilization and organizing, while Chris Lewis indicated that it also is creating new divides, not only based on income level, but also on inclusion or exclusion from data sets, knowledge bases, and others.

Theme 3: Ethics, Human Rights, and the Social Good

Many speakers called for a focus on ethics, human rights, and the importance of serving the needs of society. Harry Surden introduced that tech has removed old structural barriers, allowing for greater manipulation. Alan Davidson discussed how the tech sector often fails to fully grasp the implications of products, indicating how executive choices may reduce negative impacts, albeit while potentially creating business risk. Colorado Attorney General Phil Weiser suggested viewing empathy as a competence. Gabrielle Coleman cautioned against viewing tech as a solution to the problems of tech, adding that accountability is critical, a sentiment echoed by many speakers.

Both Donna Epps and Ellen Satterwhite emphasized the importance of internal representation to understanding impacts. Ryan Martens pointed out that tactical volunteering and a social mission may help create entrepreneurs who are more empathetic, while Balan Nair provided a persuasive narrative on needing to think about more than the math when making business decisions. The importance of business principles was emphasized by Rebecca Arbogast, and Brad Bernthal emphasized how management must make those decisions, though unions may be used to drive change.

Theme 4: The Role of Laws and Regulations

Many speakers congregated around the importance of regulation, though not necessarily what it should look like. Deji Bryce Olukotun raised the value of replacing the concept of “regulation” with “protection” to shift perspectives. Several substantive areas were raised. For example, Congressman Neguse called for Congress to analyze approaches to manage concentration, and Gabriella Coleman supported a moratorium on the use of facial recognition.

Debates around potential privacy laws were prevalent. Alan Davidson championed regulatory certainty on privacy, and Anne Toth questioned if consent the continued viability of a model based on individual consent. However, there was much disagreement on the value of a single federal law versus the ability for states to retain some authority. Some

discussed the extent privacy regulation should be driven by harm, and how it should be enforced, either by a new or existing federal agency or if states have a role. FTC Commissioner Chopra called for an evidence-based approach.

Not all speakers agreed on the necessity of regulation. Balan Nair pointed out that no regulation can force people to choose to do business with companies who “do good”. FCC Commissioner O’Rielly posited that heavy-handed regulation could undermine innovation and voiced a preference against disrupting the tech industry. He indicated that he saw no role for the FCC to play in the future of regulations for industries like esports and virtual reality. Chris Lewis, who supported a regulatory approach on privacy, questioned government oversight on content moderation, instead preferring enabling greater choices in the marketplace.

Theme 5: The Human and the Machine

Many discussions questioned if technology was actually driving impacts, or simply amplifying what is already there. Patty Limerick explained humans have always been polarized, but it may have seemed harmonic because dissent was silenced. Andrew McLaughlin noted an increase in efforts over the past decade to turn internet platforms into instruments to subvert democracy. Berin Szoka explained that, while he was optimistic about tech, he was pessimistic about people, pointing to cognitive biases to explain why people remember only negative aspects of technology.

This theme was the center of focus of the legal debate: is technology undermining democracy? In support of the premise, Paul Ohm pointed to tech’s impact on the rule of law and government as well as research on how tech uniquely enables secret manipulation. Ahmed Ghappour explained how the ‘Arab Spring,’ known widely as a hopeful narrative on the organizing power of tech, ended with tech turned against people, used by government officials to track and target those involved. By contrast, Cindy Cohn emphasized the human influence on tech. Likewise, Andrew Bridges explained how anything can be weaponized, and asserted that blaming tech avoids personal responsibility and undercuts positive uses. Rather than blame tech, Cindy Cohn looked at industry business models and the emphasis on national security in government, while Andrew Bridges emphasized the need for greater education.

Theme 6: Diversity and Inclusion

The role of diversity and inclusion to the development of tech products and policy was broadly discussed. Rebecca Arbogast pointed out how less than 3% of venture capital funding goes to women, and even less to people of color, though indicated that LiftLabs is currently at 50% for these underrepresented innovators. Deji Bryce Olukotun called for a “killer app” for tolerance, positing that empowering people to imagine their own future can teach them to think beyond their perspectives. Separately, Olukotun praised fiction and world building as a lens for evaluating policy.

Donna Epps emphasized how feedback mechanisms provide better understanding of the lived experiences of people who use tech. Brittan Heller explained how diversity prompts better inquiry, which can help develop better solutions, and Ryan Martens connected diversity to increased empathy. Historically, Patty Limerick raised the question of how certain voices get ignored. She praised the phrase “OK Boomer,” as an olive branch between generations. Karl Schroeder questioned if a lack of diversity in content has colored the facts that we believe today.

Conclusion

While the conversations throughout the conference focused on the positive and negative impacts of technology, they demonstrated how experts tend to agree on far more than they disagree. In fact, several speakers and participants questioned the value of the optimist and pessimist categories, preferring instead to think of themselves as realists, pragmatists, or something else. Ultimately, the discussions supported the continued use of collaborative, data-driven approaches to solving both old and new issues across the sector.