

**THE CENTER FOR INNOVATION POLICY AT DUKE LAW**, founded in 2014, is a forum for independent analysis and balanced discussion of policies for promoting technological innovation and its contributions to economic growth. The Center brings together technology and business leaders, government officials, legal professionals, and academic experts to identify improvements in federal policies focused on information, communications, and intellectual property. It places emphasis on evidence-based policymaking and anticipation of issues extending beyond the current Congressional session. The Center works from Duke's Durham, NC, campus and the University's office and conference facilities in Washington, DC.

Through its conferences, research, roundtable discussions and other activities the Center

- Elevates topics and brings them to the attention of highly placed decision makers;
- Leverages Duke's convening power to
  - Attract opinion leaders influential in the field in question;
  - Bring together advocates with opposing positions for constructive dialogue;
  - Create high-value networking opportunities
- Leverages the research and expertise of Duke faculty and scholars at peer institutions; and
- Connects industry, government, and NGOs with Duke graduate and undergraduate students, the next generation thought leaders.

In 2016, the Center attracted high-level participants to conferences on patent quality, copyright reform, and entrepreneurship education. In addition, faculty and staff undertook original research for presentation at Center events and/or for publication. In all of its work the Center adheres to a set of restrictive guidelines ensuring its objectivity and independence from stakeholders with financial interests in the issues it addresses.

## 2016 ANNUAL REPORT

# *The* **CENTER** *for* **INNOVATION POLICY** *at* **DUKE LAW**

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## CONFERENCES

### Patent Quality, Silicon Valley, CA (September 2016) and Alexandria, VA (December 2016)

In cooperation with the U.S. Patent and Trademark Office (USPTO) and the Santa Clara University Law School, and with financial support from Google, Microsoft, Intel, and Qualcomm, the Center organized bicoastal meetings that brought together key officials from the USPTO (including the Director and Undersecretary of Commerce Michelle Lee and her immediate predecessor David Kappos), prominent private sector stakeholders, legal scholars, and economists to discuss results achieved by the agency's Enhanced Patent Quality Initiative (EPQI).

Following the first conference, nine key participants, including Lee, Kappos, senior executives of Google and Microsoft, CIP Faculty Co-Director Arti Rai, and CIP faculty affiliate Michael Frakes, wrote op-ed articles presenting research data and outlining policy directions on various aspects of patent quality. These articles were published over a nine-week period in Law360, a widely read legal news site. Career staff at the USPTO responsible for EPQI plan to use this data in designing further steps to improve patent quality.

### A Copyright Office for the 21st Century, Washington, DC (March 2016)

With support from its founding corporate sponsors and in cooperation with New York University Law School's Engelberg Center on Innovation Law and Policy, the Center hosted a conference at the U.S. Capitol Visitor Center on the future role of the U.S. Copyright Office.



Center Co-Director Arti Rai moderates a discussion of the future of the U.S. Copyright Office with Joe Keeley, Majority Counsel of the House Judiciary Committee, and Garrett Levin, Minority Counsel of the Senate Judiciary Committee.

Participants included high-level executives from Walt Disney, Microsoft, and Google, technologists, legal academics, and senior Senate and House Judiciary Committee staff members. This conference was timely in

view of the appointment of a new Librarian of Congress, prospective appointment of a new Register of Copyrights, and introduction in Congress of legislation that would substantially restructure the Office and expand its capabilities to serve the creative and technological communities.

### Entrepreneurship Education: Developing a Community of Practice, Durham, NC (May 2016)

This ground-breaking conference, held in partnership with Duke's Innovation and Entrepreneurship Initiative and the Fuqua Business School's Entrepreneurship and Innovation Program, brought together faculty and administrators from leading universities engaged in entrepreneurship education (EE). Together with private sector entrepreneurs and investors, these scholars discussed the objectives and methods of EE and opportunities for empirical research to help improve outcomes. The conference was supported by grants from the National Science Foundation and the Ewing Marion Kauffman Foundation.



Representatives of 13 universities convene in the Duke Bullpen in Durham to discuss how best to teach entrepreneurship.

The conference attracted representatives of 13 institutions and eight VC and startup firms. The conference launched discussion of a wide range of topics – appropriate curriculum and teaching methods and ancillary support programs such as incubators, accelerators, and licensing and financing opportunities. Additionally, it produced a detailed comparison of experiential EE programs at six of the institutions represented at the conference: Arizona State, Georgia Institute of Technology, University of Chicago, Stanford, and University of Toronto as well as Duke. See Jon Fjeld, “Experiential entrepreneurship programs at universities: Are they all the same?” available at <http://bit.ly/2n3Nqmv>.

## UPCOMING PROGRAMS

### The Decline in Corporate Research: Should We Worry? Washington, DC (March 2017)

Compelling evidence points to a decline in US corporate investment in basic and applied research extending over the past generation and well beyond the closure or redirection of many of the great central corporate laboratories of the 20th century, such as those of AT&T, Xerox, and GE. Sponsored by the Kauffman Foundation and Duke University's Office of the Vice Provost for Research, this conference and new research being undertaken for it will examine the extent of the trend across industries and technologies and different firm sizes. It will also address how this decline compares with research spending by the federal government and nonprofit entities as well as with research efforts by companies abroad. Finally, it will address potential sources of the decline (e.g. capital market pressures, global competition, changes in research methods or costs) and potential tax, antitrust, intellectual property, and other policy interventions to encourage research investment. In addition to academics and former government officials, recent corporate research leaders from IBM, DuPont, and other companies will participate.

In response to a Congressional request, the Center will distill the conference discussions and present the results to a Capitol Hill audience convened by the Senate Competitiveness Caucus, co-chaired by Senators Chris Coons (D-DE) and Jerry Moran (R-KS).

### Fourth Annual Empirical Patent Law Symposium, Durham, NC (April 2017)

The Center will be a principal sponsor of this annual event organized by law professor and CIP faculty affiliate Michael Frakes. This year's program will feature current research by legal scholars and economists from New York University, MIT, Fordham, and the University of Texas, among other institutions.

### Lessons from the FCC's Broadcast Spectrum Incentive Auction, Washington, DC (May 2017)

The Federal Communications Commission is currently conducting the most complex auction in history, the culmination of a decade-long planning process for moving spectrum from broadcast to mobile broadband uses. The auction will raise billions of dollars and open up new capacity for mobile entrepreneurs and innovators. The Center's post-auction conference will identify lessons from this auction for future spectrum policy, the disposition of government assets (whether of spectrum or other resources), and the future of innovation policy generally.

## RESEARCH

For the first time in 2016 the Center began to provide support for research studies in its areas of interest and venues for communicating their results to policymakers.



Arti Rai, Elvin R. Latty Professor of Law and Co-Director of the Center for Innovation Policy at Duke Law School, is an internationally recognized expert in intellectual property law, innovation policy, and administrative law.

es empirically the extent to which the PTAB is (and is not) substituting for district court litigation, as many AIA proponents intended. Rai is also investigating what effects recent Supreme Court decisions limiting patent eligibility for certain biotechnology inventions (*Mayo v. Prometheus* and *AMP v. Myriad*) have had on patent applications and granted patents, with particular attention to the effects on new and small firms. With a co-author, she recently submitted preliminary data on this question to the USPTO. Together with Center Co-Director **Stuart Benjamin**, Rai published an article, Administrative Power in the Era of Patent Stare Decisis, *Duke Law Journal* 65:1563-1599 (2016), arguing that the Supreme Court's tendency to adhere very closely to its own past precedent in the area of patent law may have limited the USPTO's interest in aggressively asserting lawmaking authority through the PTAB.



Stuart M. Benjamin is the Douglas B. Maggs Professor of Law, Associate Dean for Research, and Co-Director of the Center for Innovation Policy at Duke Law School. He specializes in telecommunications law, the First Amendment, and administrative law.

In earlier research, Fuqua Professors and Center faculty affiliates **Ashish Arora** and **Sharon Belenzon** found an anomaly in research activity and use by public companies based in the United States. Consistent with government data showing a decline over time in corporate research spending, they found that industrial researchers are publishing much less frequently in the scientific

and engineering literature. On the other hand, citations in patents filed by these companies suggest a greater reliance on public science. The Center is helping to extend this research in two ways – first to venture capital-backed U.S. companies not yet public, and second to European firms.

Center Executive Director **Stephen Merrill** is bringing earlier analysis of U.S. government research spending up to date in order to determine if the imbalance between biomedical research efforts on the one hand and physical science and engineering research on the other has continued through the economic recession and recovery.

Together with a co-author, **Michael Frakes** has done what is widely considered the most comprehensive research on time limitations faced by USPTO examiners in evaluating patent applications and the effects of these time limits on issued patents. In 2016, Professor Frakes presented his work at several CIP-sponsored fora.

Following the Center's May 2016 conference on entrepreneurship education, **Jon Fjeld** compared the programs of Arizona State, Duke, Georgia Tech, Stanford, University of Chicago, and University of Toronto in the working paper listed previously.

## FINANCIAL SUPPORT

Four of the world's leading technology companies – AT&T, Comcast, Google, and Qualcomm – provide ongoing support and advice on program activities via membership on the Center's Advisory Board. Center membership is open to other corporations that value the Center's emphasis on evidence-based policymaking and focus on issues beyond the current election cycle.

The Center also received grants from the National Science Foundation and the Ewing Marion Kauffman Foundation for activities in 2016 and 2017. The Duke University-wide Innovation and Entrepreneurship Initiative and the Office of the Vice Provost for Research also partially support the Center's operation.

## ADVISORY BOARD

**Rebecca Arbogast**, *Senior Vice President for global public policy for Comcast Corporation*

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## ETHICAL GUIDELINES

From the Center's founding, its principals have adhered to a set of ethical guidelines and standards to ensure maximum disclosure, transparency, and avoidance of bias and conflicts of interest in its work. Our continuing pledge is to

- disclose all sources of funding contributing to the conduct of any activity, production of any written product, or delivery of any oral presentation on behalf of the Center;
- do no work commissioned and paid for by an entity or individual with a financial interest in the results of the work (even if the would-be sponsor would have had no ability to approve or disapprove the results);

- in accepting financial contributions from for-profit entities, endeavor to ensure support from multiple sources with contrasting policy preferences;

- disclose any personal financial relationships with for-profit, not-for-profit, or government entities concerned with the Center's subject matter;

- strive for replicability in any empirical research conducted under the Center's auspices, in general by making the data, or a transparent methodology for deriving the data, available to other academics at the time of publication; and

- make the Center's public events open to arguments on all sides of the issues being considered.

## CONTACT INFORMATION

The Center welcomes views on its activities and requests for additional information.

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