

polycentriccircles

WOW6 Conference

The WOW6 conference will be taking place in just five months!

Note that the **Call for Papers deadline is January 25** (the Call for Panels deadline has passed—thank you to all who submitted). We are pleased to announce that there are currently more than 50 panel sessions that will be featured at the conference. Presentations and panels will span from social-ecological landscapes in the Amazon to diversity in collective action, and collaborative governance in municipalities to theoretical foundations of polycentric governance.

Our first WOW conference was held in 1994 as a way for past visitors, students, and scholars who interacted with the Workshop to reconnect and discuss their work and other topics of common interest. We are excited that after a transitional five years since WOW5, we have such an outpouring of interest and participation in WOW6. It is shaping up to be one of our biggest conferences to date, and we want to encourage everyone to check the website frequently where we will be posting updates.

KEY DATES

- Early registration: March 1–April 5
- Paper submissions: March 15-May 31
- Regular registration: April 6-June 19
- IMU Biddle Hotel reservations (open). Deadline: May 18
- Ticketed dinner event on June 21. Deadline: June 10
- Willkie reservations (opens March 1). Deadline: June 12

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"Governance: Past, Present, and Future"

Indiana University | June 19–22, 2019

Early registration will open on March 1, so please visit the conference website (https://wow.indiana.edu/) to view rates, register, make lodging reservations (discount code provided), and to view more detailed information. We will post information to the conference website as it becomes available, and ask that you direct all conference questions via email to: wow@iu.edu

We are grateful to the many participants, supporters, and sponsors of this conference and eagerly look forward to seeing you in June!

PRELIMINARY AGENDA AT-A-GLANCE

TUESDAY. JUNE 18

2:00-5:00 PM • Check-in

WEDNESDAY, JUNE 19

8:00-10:30 AM • Check-in

 $9:00-10:15 \text{ AM} \cdot \text{Plenary session on the Ostrom Workshop,}$

present and future

10:30 AM - 5:00 PM • Panels

THURSDAY, JUNE 20

8:30 AM - 5:00 PM • Panels

5:00-6:00 PM • Reception

FRIDAY, JUNE 21

8:30 AM - 3:00 PM • Panels

3:15–4:30 PM • IU Bicentennial tribute to Elinor Ostrom with

Thráinn Eggertsson

5:30-8:00 PM • Dinner (ticketed event)

SATURDAY, JUNE 22

8:30 AM - 12:00 PM • Panels 12:00 PM • Adjourn

STAY CONNECTED

Polycentric Circles is a biannual (January & August) publication of the Ostrom Workshop. Join the mailing list at: https://ostromworkshop.indiana.edu/mailing-list/. Submissions are always welcome and may be sent to the editor.

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Governance

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Management and Information

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(PELIO)

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MISSION: To build upon the theme of governance to understand and address major societal problems



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The Ostrom Workshop is a research center of the Office of the Vice Provost for Research at IU Bloomington

Groundwater governance in California

BY JAMES NACHBAUR

Director, Office of Research, Planning, & Performance, California Water Resources Control Board; Workshop Visiting Scholar 2006–07

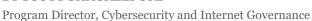
Groundwater governance in California is newly focused on local self-governance and sustainability, thanks to the state's Sustainable Groundwater Management Act (passed in 2014). I joined the staff of the California State Water Resources Control Board in 2018 and am excited to be involved in tracking the policy development and imple-



mentation efforts of many new local governments responsible for groundwater management and in supporting related state policy development and implementation. This work has given me a good reason to read and reread a lot of the great work Workshoppers have published on California water issues, self-governance, and commonpool resources over the years. Contact me if you'd like to learn more, have ideas or resources that could help, or want to study the process (James.Nachbaur@Waterboards.ca.gov).

Cyber Peace Working Group

BY SCOTT SHACKELFORD





In many ways, cyber insecurity has never been more pronounced. Hackers have launched attacks on cities such as Atlanta, probed the US power grid, and even tried to compromise our democratic system. Research firm Cybersecurity Ventures projects that global losses from cybercrimes could well hit \$6 trillion a year by 2021, while Gartner Inc. forecasts that worldwide spending on cybersecurity will exceed \$124 billion in 2019. But instead of more handwringing or new software patches, what is needed is a new, more proactive approach to cybersecurity that addresses concrete vulnerabilities, helps us better understand how the cyber threat is developing, and strengthen global public- and private-sector defenses to more effectively manage cyber attacks and secure some measure of cyber peace. Yet, to date, there have been relatively few efforts aimed at defining and understanding the goal of "cyber peace." The International Telecommunication Union (ITU), a UN agency specializing in information and communication technologies, pioneered some of the early work in the field, as did the World Federation of Scientists and the Vatican, but too often cyber peace is viewed as a negative, e.g., the end of cyber attacks. Although certainly desirable, such an outcome is politically and technically unlikely, at least in the near term. Instead, what might a positive cyber peace look like, and how might we get there? At the end of the day, what is the best we can hope for in terms of "peace" on the internet?

Building from the Cyber Peace Alliance that the Ostrom Workshop Cybersecurity and Internet Governance Program built with nonprofit foundations, including the Cyber Peace Foundation, we are formalizing a Cyber Peace Working Group to help advance the field. If you have an interest in peacebuilding, both online and offline, and are interested in getting involved in this effort, please do so by signing up at https://ostromworkshop.indiana.edu/mailing-list/.

- ▼ Colloquium, Research, and Tocqueville Lecture Series
 View the Spring 2019 schedule and/or join the mailing list.
- ▼ Ethics in the Information Age event series
 View the Spring 2019 schedule
- ▼ JANUARY 31 Maurer School of Law, IU

CACR Security Speaker Series, & Cookies and Hard Problems reading group, J. J. Thompson, Founder & CEO, Rook Security

▼ FEBRUARY 11 • Maurer School of Law, IU

Ethics in the Information Age event series, "Government Surveillance: A Roundtable Discussion about Occurrences, Impacts, and Governance," Margaret Hu, Jessica Eaglin, and Angie Raymond

▼ APRIL 4 • IU

Inaugural Ostrom Lecture on Cybersecurity and Internet Governance

Michael Sulmeyer, Cyber Security Project Director, Belfer Center for Science and International Affairs, Harvard Kennedy School

▼ APRIL 12-13 • NYU School of Law, New York

Symposium on "Mismatched Property Regimes to Landscape-Level Resources: Legal and Customary Solutions," cosponsored by the Classical Liberal Institute at NYU and the Workshop's Program on Natural Resource Governance (by invitation only)

▼ APRIL 17 • IMU University Club, IU

3rd Annual Ostrom Lecture on Environmental Policy
Barry Rabe, Ford School of Public Policy, University of Michigan

▼ APRIL 27 • Ostrom Workshop, IU

Political Institutions and Economic Policy (PIEP) Conference Organized by Lee Alston & Cyanne E. Loyle (by invitation only)

▼ MAY 7-9 • Canberra, Australia

"Making Democracy Harder to Hack," a Collaborative Research Workshop between IU and Australian National University

▼ JUNE 19-22 • Indiana Memorial Union, IU

Workshop on the Ostrom Workshop (WOW6) conference, "Governance: Past, Present, and Future"

More information about Upcoming Events will be provided on our website as it becomes available

Colloquium, Research, and Tocqueville Lecture Series *

Twenty-five presentations took place in Fall 2018.

Ostrom Memorial Lecture

The 5th annual lecture was presented by Milton Mueller, Georgia Institute of Technology School of Public Policy, Oct. 3 *

Program on Cybersecurity and Internet Governance

 "Making Democracy Harder to Hack," a Collaborative Research Workshop between Indiana University and Australian National University, Washington, DC, Sept. 6–7



- Cookies and Hard Problems reading group: "Blockchain Governance Initiative: A Roundtable Discussion," Oct. 24
- Ethics in the Information Age event series (Consortium for the Study of Religion, Ethics, and Society, IU)

Program on Data Management and Information Governance

- "Paywall: The Business of Scholarship," documentary viewing and panel discussion, Sept. 20
- "Smart Cities: Security, Privacy, and Governance Best Practices" launch conference (cohosted with Program on Cybersecurity and Internet Governance), Oct. 3–5 *
- Cookies and Hard Problems reading group: "Blockchain Governance Initiative: A Roundtable Discussion," Oct. 24
- Ethics in the Information Age event series (Consortium for the Study of Religion, Ethics, and Society, IU)

Program on Natural Resource Governance

- Natural Resource Governance Seminar Series: Joshua Teitelbaum, Georgetown Law, Washington, DC, Nov. 1
- Symposium on Natural Resource Governance for Young Scholars, Nov. 15–16

Program on Political, Economic, and Legal Institutions and Organizations (PELIO)

 Ungoverned Spaces Working Group: "Rebel Governance in De Facto States," Adrian Florea, International Relations, University of Glasgow, Scotland, Nov. 13

Cyber Ethics and Technology Society

ccording to Forbes, more than 2.5 quintillion bytes of data Ais created every day. While it is almost incomprehensible to quantify the colossal amounts of data being used on a daily basis, how exactly that data is purposed and where it is being transferred to are questions that rise ethical concerns. In addition to Big Data, the technological landscape is changing as the progression of the Internet of Things (IoT) extends far beyond personal devices of the average user. By the year 2020 alone, more than 20.4 billion Internet of Things (IoT) devices will be deployed, according to analyst firm Gartner. As these technologies advance, large portions of consumer data collection will increase and with the adoption of machine learning integrated with enterprise technology, the right of privacy also continues to diminish. Transparency is critical to the ethical use of technology in a digital society. Influences on the security of emerging innovations, along with the unintended consequences that are brought along with the advancements of technology will need to be examined through a multidisciplinary lens if we hope to preserve transparency with the ethi-

BY SCOTT SHACKELFORD & ANGIE RAYMOND

Program Directors, Cybersecurity and Internet Governance; Data Management and Information Governance

cal uses of our day-to-day technologies. The Cyber Ethics and Technology Society (CETS) is a new, collaborative initiative that bridges together academic disciplines to foster multidisciplinary dialogue on how the advancements of technology affects society and how we can establish ethical governance to technology as it rapidly progresses. We have established a partnership between our Cybersecurity and Data Governance programs. We encourage student involvement and will be organizing career panels beneficial to the professional development of IU students. We envision future partnerships between the School of Informatics, Computing, and Engineering (SICE), Kelley School of Business, Maurer School of Law, and Center for Applied Cybersecurity Research (CACR).

To join our working group, and learn more about our ongoing research, please sign up for our dedicated CETS listserv at https://ostromworkshop.indiana.edu/mailing-list/.

Report on the Young Scholars Symposium

On November 15–16, 2018, the Ostrom Workshop hosted the Symposium on Natural Resource Governance for Young Scholars. The symposium, generously funded by the Searle Freedom Trust, was developed and organized by Dean Lueck, professor of economics and director of the Program on Natural Resource Governance at the Workshop.



The two-day program featured presentations of scholarly work by ten outstanding young scholars, all assistant professors or PhD students. They included: JUDSON BOOMHOWER (UC San Diego), FIONA BURLIG (University of Chicago), TATYANA DERYU-GINA (University of Illinois), ERIC EDWARDS (NC State University), KYLE EMERICK (Tufts University), DONNA FEIR (University of Victoria), BRYAN LEONARD (Arizona State University), JULIO RAMOS (Indiana University), JESSICA STEINBERG (Indiana University), and Anja Tolonen (Barnard College, Columbia University). The young scholars presented papers on a wide range of empirical topics that used both historical and contemporary data. The topics included: water pricing in Indian agriculture, water rights on American Indian reservations, wildfire management and incentives in the US, the impact of Hurricane Katrina on health, the organization of energy institutions in India, the behavior of women and the development of norms in mining communities in the US, the impact of Mexican land and water institutions on California, the impact of the conquest of the

bison people on the Great Plains, the management of common forests in Africa, and the effect of nineteenth-century land settlement on land values and investment.

The program also included lectures by three senior scholars: BENITO ARRUÑADA (Universitat Pompeu Fabra, Barcelona, Spain), DOMINIC PARKER (University of Wisconsin), and JAMES WALKER (Indiana University). Each of these senior scholars gave a lecture and provided mentorship throughout the symposium. Professor Walker's lecture was titled "The Commons: Institutions, Incentives, and Behavior in Experiments." Professor Arruñada gave a lecture titled "Coase and Institutional Analysis." Professor Parker gave the final lecture, titled "Doing Empirical Analysis of Resource Governance in the Credibility Revolution." Details on the symposium can be found at https://ostromworkshop.indiana.edu/events/conference/young-scholars-symposium.html.

Elinor Ostrom Living Bibliography



Ten years after her Nobel win, Elinor Ostrom's work remains relevant in our ever-changing world. Because of this, we wanted to create a living bibliography of published works on her research and contributions for easy access to those wanting to learn more or see what others are researching.

This bibliography can be found at https://ostromworkshop.indiana.edu/resources/library/subject-bibliographies/eoliving-bib.html, where we will be able to add to the page as new items are written.

If you know of any new publications or older works that we missed (published books, articles, and chapters), please send the citation to Emily Castle (efcastle@indiana.edu) with subject line Ostrom Living Bibliography so we can add the item.

Smart Cities: Security, Privacy, and Governance Best Practices

Hosted at the Ostrom Workshop and cohosted by the Program on Data Management and Information Governance (Angie Raymond) and the Program on Cybersecurity and Internet Governance (Scott Shackelford)

rom Barcelona, to Hong Kong, to Boston, to Indianapolis, governments around the world are deploying a myriad of new technologies to address the basic challenges of living and thriving in modern societies. Already, more people around the world live in cities than in rural areas for the first time in world history, a trend that is expected to only continue in the decades ahead. At the same time, new challenges from climate change and cyberattacks to protecting personal privacy in rising megacities demand our attention. This conference on the broad topic of "Smart Cities" seeks to define this vague term, and to help lay out an appropriate research agenda to appropriately tackle the governance challenges presented by this trend. For example, while some cities have embedded sensors within streets and subways may improve the daily transit, others are using data and analytics to build public-facing applications to enhance residents' engagement with the city and its neighborhoods. Several ongoing projects envision managing the tension between the government holding data and the individual's right to privacy. Yet, the issue is far from settled, and many other topics remain to be addressed. The Smart Cities: Security, Privacy, and Governance Best Practices held in October of 2018 sought to begin to develop a network of professionals within the area to build a knowledge commons related to best practices within this area.

The conference drew participants from around the United States, discussing in a panel format, issues such as Securing (Not So) Smart Cities; Open Government: Governance and Issues; Making a City Smarter by Improving Access to Services; Smart Cities in Action (Chicago and Seattle); Governments, Data, and Society; and Governments, Data, and Society: Asking the Right Questions. Panelists such as BRETT M. FRISCHMANN, Villanova University; SALOME VILJOEN,



Berkman Klein Center for Internet & Society; Doc Searls, cofounder and co-organizer of the Internet Identity Workshop; MILTON MUELLER, Georgia Institute of Technology; ABBEY STEMLER, Indiana University; Deven Desai, Georgia Tech; Janine Hiller, Virginia Tech; Jody Blanke, Mercer University; Joyce Searls, Trustee, Sovrin Foundation and Customer Commons; Greg Bloom, Open Referral; Simon Boehme, LegalWin; Kip Tew, Ice Miller, Indianapolis; Joseph Tomain, Indiana University; Benjamin Green, Berkman Klein Center for Internet & Society; Gerry Lanosga, Indiana University; and Scott Shackelford, Indiana University, identified key areas within each of the respective areas and then set an agenda to move discussions forward concerning the creation of best practices.

The conference finalized with an agreement to move the project forward in a concrete manner, by agreeing to create a Smart Regions Collaborative, in which various universities and industry partners will move issues forward at yearly conferences. The 2019 conference is scheduled to be hosted at Virginia Tech, with the 2020 conference tentatively scheduled to be hosted at Villanova University, and the 2021 conference tentatively scheduled to be hosted at Georgia Tech.

IN THE NEWS

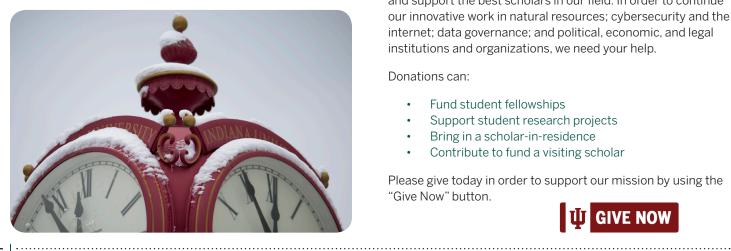
- ➤ **Shahzeen Attari** was picked for *Science News* "10 scientists under 40 you need to know" (see The SN 10: These scientists defy limits to tackle big problems). Attari was also named an IU Bicentennial Professor in December 2018. The program is part of the university's continued commitment to public outreach and community engagement.
- > Jennifer Brass is a recipient of the 2018 ARNOVA Outstanding Book Award in Nonprofit and Voluntary Action Research for Allies or Adversaries: NGOs and the State in Africa.
- > Eduardo Brondizio was one of 10 IU faculty members appointed as Distinguished Professor in December 2018. This is the university's highest academic rank for scholars and researchers (see related story here).
- In 2017, ground was broken on the IU Campus Farm, funded by a \$50,000 grant from IU Bloomington's Sustainability Innovation Fund. Watch the video, featuring farm codirector James Farmer, to learn more about how the farm used its first harvest in fall 2018 to serve the university and the local community.
- ► In November 2018, IU SPEA received a gift from **Burney and** Barbara Fischer to endow the Fischer Faculty Fellowship program. This gift will provide crucial research support to tenuretrack junior faculty at SPEA during the early stages of their career. The first Fischer Fellow will be named for fall 2019.
- Cooperative Projects North America: The cooperative projects funding line in the Department of International Affairs at **Hamburg University** aims to strengthen and expand upon academic cooperation with select partner universities. Scientists and scholars from both sides can apply for funding for travel and living expenses to establish new projects and consolidate existing cooperation. You can also plan joint conferences or develop other activities with partners to enhance Universität Hamburg's visibility in North America (information on the newly introduced funding line for activities between IU Bloomington and Hamburg is available here).

- ▶ Gayle Higgins, Workshop Accounting and Financial Support Specialist, celebrated her 30-year staff service anniversary at the Workshop/IU in October 2018.
- ➤ The 17th International Association for the Study of the Commons (IASC) Global Conference, "In Defense of the Commons: Challenges, Innovation, and Action," will take place in Lima, Peru, July 1-5, 2019.

The recorded webinar presentations from IASC World Commons Week 2018 are now available online (https://www.worldcommonsweek.org/webinars).

- ➤ Call for Abstracts deadline: January 29. CA CCR European Research Conference, "Cooperatives and the Transformation of Business and Society," Berlin, Germany, August 21–23, 2019.
- ➤ Call for applications deadline: February 15. Institutional and Organizational Economics Academy (IOEA), Cargèse (Corsica -France), May 20-24, 2019.
- ➤ The Society for Institutional & Organizational Economics (SIOE) will hold their annual conference at the Stockholm School of Economics on June 27-29, 2019.
- David Soto-Oñate, postdoctoral researcher in the Department of Applied Economics at the University of Vigo, Spain, will be a Visiting Scholar at the Workshop from Nov. 30, 2018 to Nov. 29, 2020. Among his fields of interest are Institutional Economics, Political Economy, Economic Sociology, and Economic History.
- ➤ "Wightwash," a feature-length documentary about sustainability and the Eco Island project on the Isle of Wight, was produced by David George, Utility Films, Ventnor, Isle of Wight, in September 2018. In an interview for the film, Professor James Dyke of Southampton University speaks about Elinor Ostrom and governing the commons. Watch the trailer at https:// vimeo.com/utilityfilms.

SUPPORT US TODAY



We are constantly seeking to expand the scope of our work and support the best scholars in our field. In order to continue our innovative work in natural resources; cybersecurity and the internet; data governance; and political, economic, and legal institutions and organizations, we need your help.

Donations can:

- Fund student fellowships
- Support student research projects
- Bring in a scholar-in-residence
- Contribute to fund a visiting scholar

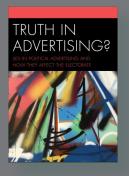
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PUBLICATIONS

Truth in Advertising? Lies in Political Advertising and How They Affect the Electorate

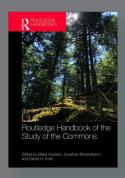
Barbara Allen and Daniel Stevens (Lexington Books, 2018)



This book represents the first systematic effort to examine (1) the factual accuracy of the claims made in an entire political advertising campaign, (2) the visuals and sound cues used in that advertising and their relationship with the tone and accuracy of ads, and (3) the impact of the accuracy of claims on what people know and how they vote in a real campaign. The research is based on several years of labor-intensive coding of the factual accuracy of every claim made in the presidential ads in the 2008 election as well as the ads for the races for the US Congress in Minnesota.

Routledge Handbook of the Study of the Commons

Edited by Blake Hudson, Jonathan Rosenbloom, and Daniel Cole (Routledge, 2019)



This comprehensive Handbook serves as a unique synthesis and resource for understanding how analytical frameworks developed within the literature assist in understanding the nature and management of commons resources. Such frameworks include those related to Institutional Analysis and Development, Social-Ecological Systems, and Polycentricity, among others. The book aggregates and analyzes these frameworks to lay a foundation for exploring how they apply according to scholars across a wide range of disciplines.

Communities Restoring Landscapes
 Stories of Resilience and Success

Esther Mwangi and Monica Evans (Center for International Forestry Research, 2018)



This collection of 12 stories from women and men in nine countries in different parts of Africa shines a light on the efforts of communities, some of them decades-long, in restoring degraded forests and landscapes. The stories are not generated through any rigorous scientific process, but are nonetheless illustrative of the opportunities communities create as they solve their own problems, and of the many entry points we have for supporting and accelerating community effort.

► The Blockchain and the New Architecture of Trust

Kevin Werbach (MIT Press, 2018)



In an era when trust in institutions of all kinds is collapsing, the blockchain offers a new hope: Shared ledgers of information that no one controls but everyone can believe. Werbach offers the first in-depth, balanced analysis of the blockchain's true potential, as well as its limitations and dangers. He maps the often-confusing landscape, and shows how a technology resting on foundations of mutual mistrust can become trustworthy. Surprisingly for a technology widely associated with illegality, fraud, and distrust of governments, the path to trusted blockchains runs through governance, regulation, and law.

Forthcoming

Shackelford, Scott, *Governing New Frontiers in the Information Age: Toward Cyber Peace* (Cambridge University Press, 2019)

Shackelford, Scott, and Amanda N. Craig Deckard, *The Internet of Everything: What Everyone Needs to Know* (Oxford University Press, 2019)

PUBLICATIONS (continued)

ARTICLES & PAPERS

- Aaronson, Susan Ariel. 2018. "Data Is Different: Why the World Needs a New Approach to Governing Cross-border Data Flows." CIGI Papers No. 197, November. Waterloo, ON, Canada: Centre for International Governance Innovation.
- Ahunu, Linda. 2018. "The New Approach to Resource Governance in Africa: Adopting a Pro-Social Resource Governance Framework in Ghana Discussion Document."
- Boyd, Robert, Peter J. Richerson, Ruth Meinzen-Dick, Tine De Moor, Matthew O. Jackson, Kristina M. Gjerde, Harriet Harden-Davies, Brett M. Frischmann, Michael J. Madison, Katherine J. Strandburg, Angela R. McLean, and Christopher Dye. 2018. "Tragedy Revisited." *Science* 362(6420) (Dec. 14): 1236–1241.
- Carley, Sanya, and Lilian Yahng. 2018. "Willingness-to-Pay for Sustainable Beer." *PLoS ONE* 13(10): e0204917. https://doi.org/10.1371/journal.pone.0204917.
- Delaney, Aogán, Tom Evans, John McGreevy, Jordan Blekking, Tyler Schlachter, et al. 2018. "Governance of Food Systems across Scales in Times of Social-Ecological Change: A Review of Indicators." Food Security 10(2): 287–310.
- Environmental Policy and Governance special issue: Bringing Polycentric Systems into Focus for Environmental Governance. July/August 2018, volume 28, issue 4, pp. 205–318.
- Moran, Emilio, Maria Claudia Lopez, Nathan Moore, Norbert Müller, and David Hyndman. 2018. "Sustainable Hydropower in the 21st Century." *PNAS*, https://doi.org/10.1073/pnas.1809426115.
- Rozas, David, Antonio Tenorio-Fornés, Silvia Díaz-Molina, and Samer Hassan. 2018. "When Ostrom Meets Blockchain: Exploring the Potentials of Blockchain for Commons Governance." https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3272329.

VIDEO ON COMMUNITY POLICING

Police departments used to be small and independent. Consolidation of these small departments has had lasting unintended consequences. Here's the story of how that happened.

The video references Elinor Ostrom's study of police services. Produced by Josh Oldham and Bela Cunningham, Institute for Humane Studies. Premiered Jan. 15, 2019.

BLOGS, INTERVIEWS, & PODCASTS

- Interview with Benito Arruñada, "Business Formalization, Policy, and Organizational Success," *CIBER Focus*, Dec. 12, 2018.
- "Shahzeen Attari explores the psychology of saving the planet," by Bruce Bower, *Science News*, Sept. 26, 2018.
- Sanya Carley discusses the economics of coal and renewable energies, Eco Feature, WFHB Radio, Sept. 6, 2018.
- Interview with Tine De Moor and Brett Frischmann, "'The Tragedy of the Commons' turns 50, and how Neanderthal DNA could change your skull," *Science*, Dec. 13, 2018.
- Brett Frischmann, "The Tragedy of the Commons, Revisited," *Scientific American*, Nov. 19, 2018.
- Brett Frischmann and Deven Desai, "The Promise and Peril of Personalization," Stanford Center for Internet & Society (blog), Nov. 29, 2018.
- Angie Raymond is quoted in "Rules for a smarter city: How much privacy would you give up for a cleaner, safer city?," *Science Node*, Oct. 22, 2018.
- Bruce Schneier talks about his new book, Click Here to Kill Everybody: Security and Survival in a Hyper-connected World, NPR, Sept. 4, 2018.

Scott Shackelford:

- "Three Ideas for Solving the Cybersecurity Skills Gap— One possibility: Create a Cybersecurity Peace Corps," *Wall Street Journal*, Sept. 18, 2018.
- "How Australia can help the US make democracy harder to hack" (with Matthew Sussex), *The Conversation*, Sept. 27, 2018.
- "30 years ago, the world's first cyberattack set the stage for modern cybersecurity challenges," *The Conversation*, Nov. 1, 2018.
- "US academics recommend Australian-style paper ballots at elections," interview with Australian Broadcasting Corporation, Dec. 12, 2018.
- "Renewed space rivalry between nations ignores a tradition of cooperation," *The Conversation*, Jan. 10, 2019.
- IU Sustainable Food Systems Science research initiative, *Earth Eat*s podcasts:
 - "For the Love of Farming," Aug. 31, 2018. Denise O'Brien and Kate Edwards talk about the importance of role models for women in farming.
 - "A Flowery Farm Transition, and a Neighborhood Coffee Shop Gets a Nightlife," Sept. 14, 2018.



OSTROM WORKSHOP

Advancing effective governance worldwide







The **Ostrom Workshop** was founded at Indiana University in 1973 by Nobel laureate Elinor Ostrom and her husband, Vincent. Today, we carry forward their legacy by seeking and sharing solutions to the world's most pressing problems involving communal and contested resources — from clean water to secure cyberspace.

WHAT + WHY + HOW

- What does it take to ensure effective governance?
- + Why do similar rules produce different results in different settings?
- + How can decision makers be incentivized to choose **long-term solutions** over short-term gains?

These complex questions demand a comprehensive approach drawing on insight from many fields of study. We are the first and only organization to take this transdisciplinary approach to governance, bringing together experts across the academic spectrum. With affiliated faculty in nearly every school on campus, more than 30 U.S. universities, and institutions in 20 countries, the **Ostrom Workshop** is a truly global collaboration.

OUR AMBITION IS TO FUNDAMENTALLY UNDERSTAND HOW TO MANAGE ISSUES STEMMING FROM GOVERNANCE FAILURES.

The need for policies that incentivize effective governance is at the root of society's most significant struggles. From famine to higher education, business loans to vaccinations, and disaster preparedness to internet connectivity, motivating people to work together is essential to overcoming our most important global challenges.

WE WORK **ACROSS DISCIPLINES** TO FIND EFFECTIVE SOLUTIONS FOR A COMPLEX, INTERCONNECTED WORLD.

ANTHROPOLOGY	INFORMATICS & COMPUTING		
ARCHITECTURE	INTERNATIONAL ECONOMIC POLICY		
ATMOSPHERIC SCIENCE	INTERNATIONAL STUDIES		
BIOLOGY	LAW		
BUSINESS LAW AND ETHICS	MEDIA STUDIES		
CRIMINOLOGY	POLITICAL SCIENCE		
CYBERSECURITY	PUBLIC AFFAIRS		
DISABILITY AND COMMUNITY	PUBLIC FINANCE		
ECONOMICS	PSYCHOLOGICAL & BRAIN SCIENCES		
ENTREPRENEURSHIP & INNOVATION	RECREATION, PARK & TOURISM STUDIES		
ENVIRONMENTAL SCIENCE	SUSTAINABILITY STUDIES		
GEOGRAPHY	TAXATION		
HISTORY	URBAN AND RURAL DEVELOPMENT		

RESEARCH PROGRAMS

Currently, the Ostrom Workshop houses four transdisciplinary programs, and aspires to encompass many more.

- Political, Economic, and Legal institutions and Organizations examines the wide range of governance structures and their applications at different scales.
- Natural Resource Governance focuses on the ways we interact with our environment to access, protect, exploit, or conserve natural resources.
- Cybersecurity and Internet Governance investigates such topics as how to mitigate the risks of cyber-attacks on critical infrastructure and the Internet of Things to promote cyber peace.
- Data Management and Information Governance explores policies from open access and transparency to privacy and intellectual property.

WHAT'S NEXT? Our aspiration is to be a global destination drawing the foremost governance scholars and thought leaders to Indiana University. Our pioneering approach and distinguished legacy attract strong interest, yet support is needed to bring these luminaries to campus.

True to our commitment to advancing cooperation, the Ostrom Workshop is enthusiastically seeking partners with a shared vision of advancing effective governance. We welcome new ideas and directions for our programs, and look forward to connecting with potential collaborators.



Please consider making an immediate and tangible impact by giving to the Ostrom Workshop. Together, we will build on the Ostroms' legacy of research and leadership to educate and inspire future generations. **GIVE HERE** (Note: The IU Foundation processes all donations to the Ostrom Workshop. Selecting "Give Here" will redirect you to their website.)

