# SPRING 2019 DICES



#### in this issue

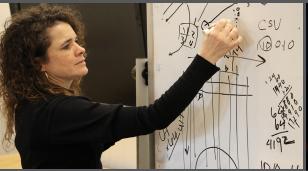
#### features

faculty**feature:** Active Defense, M Taylor Fravel. 2 précis**interview:** R David Edelman. 14 student**feature:** Kacie Miura on the domestic roots of China's assertiveness. 21

#### briefings

Technology and human rights. 6
Policy Lab launches EdX course. 19
Saudi scholar-activist joins CIS. 20
Mapping urban transport. 26
Learning to study a painful past. 28

cis**activities** 32 end**notes** 34







# facultyfeature

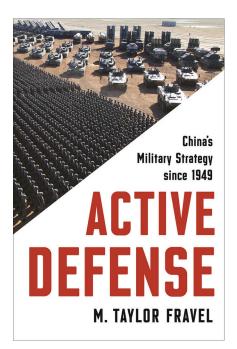
#### Active Defense: China's Military Strategy since 1949

A new book by M Taylor Fravel



This is the first book to provide a comprehensive history of China's military doctrine as it has evolved since the founding of the People's Republic...Fravel highlights the most consequential changes of strategy and explains how they came about in response to shifts in other countries' fighting capabilities, and at moments when China's turbulent domestic politics were calm enough to let military leaders

rethink the country's defense challenges. The most recent strategic guidelines, however, reflect a new situation: rising Chinese power. Issued in 2014, they call for "winning local informatized wars"—in other words, being prepared to beat the United States in a high-tech military conflict in the South China Sea or over Taiwan. (Andrew J Nathan, Foreign Affairs)



M Taylor Fravel is the Arthur and Ruth Sloan Professor of Political Science and a member of the Security Studies Program at MIT. His book was published in spring 2019 by Princeton University Press.

Photo: Dominick Reuter

#### Introduction

This study makes four contributions to understanding the process of change in China's military strategy. The first is to provide the first complete account of all the strategic guidelines issued since 1949. This is a crucial first step in any effort to explain changes in Chinese strategy and, more broadly, to understand the evolution of China's defense policies. Previously, neither Western nor Chinese studies of China's defense policies have offered a complete examination of the PRC's military strategies. Although Chinese scholarship on military strategy in the past decade does refer to the strategic guidelines, at most only a few of the guidelines that were adopted are discussed and they do not necessarily identify the same set of strategies. Due to the constraints imposed by limited access to relevant Chinese sources, most Western scholarship has inferred China's strategies not from the content of the strategic guidelines themselves, but from Chinese statements, press reports, and weapons development. China's strategy before the 1980s was often viewed simply as "people's war," then "people's war under modern conditions" in the 1980s, and, finally, variants of "local wars" since the 1990s. The one-million-man downsizing in 1985 was interpreted as a change in China's strategy when, in fact, it was not.

Second, this study demonstrates that three of the strategies that China has adopted since 1949 represent major changes in its military strategy. Major change consists of a new vision of warfare, which then prompts reforms in the areas of operational doctrine, force structure, and training in order to execute this vision. In 1956, China's first major change in military strategy emphasized positional warfare and fixed defenses to stop or blunt an American invasion. This was a clear departure from the dominance of mobile warfare that prevailed during much of the civil war and the Chinese offensives in the Korean War. In 1980, the PLA again emphasized positional warfare to counter a Soviet invasion. This strategy was a major departure from that of "luring the enemy in deep," adopted in 1964 and used throughout the Cultural Revolution, which emphasized ceding land to an invader, mobile warfare, and decentralized operations. In 1993, the third major change in China's military strategy shifted from how to defend China against an invasion to how to prevail in local wars over limited aims on its periphery, especially in territorial and sovereignty disputes.

# facultyfeature

Third, China has pursued major changes in its military strategy when a significant shift in the conduct of warfare has occurred in the international system—but only when the party leadership is united. A shift in the conduct of warfare creates a strong incentive for a state to adopt a new military strategy if the shift demonstrates that a gap exists between a state's current capabilities and the requirements of future wars. The effect of these shifts should be particularly salient for developing countries or late military modernizers such as China who are trying to improve their military capabilities. These states are already at a comparative disadvantage and need to monitor their capabilities closely relative to stronger states. In socialist states with party-armies and not national ones, the party is likely to grant substantial autonomy for the management of military affairs to senior military officers, who will adjust strategy in response to changes in their state's security environment. Because senior military officers are also party members, the party can delegate responsibility for military affairs without the fear of a coup or concerns that the military wil pursue a strategy inconsistent with the party's political goals. Such delegation, however, is only possible when the party's political leadership is united over questions of the party's basic policies and the structure of authority within the party.

Shifts in the conduct of warfare and party unity feature prominently in the three major changes in China's military strategy since 1949. The 1956 strategy was adopted during a period of unprecedented unity within the CCP. Senior PLA officers, especially Su Yu and Peng Dehuai, initiated the change in strategy as the PLA absorbed the lessons of World War II and the Korean War, along with the nuclear revolution. The 1980 strategy was adopted after Deng Xiaoping consolidated his position as China's paramount leader and reestablished party unity following the leadership splits and general upheaval of the Cultural Revolution. Senior PLA officers, especially Su Yu, Song Shilun, Yang Dezhi, and Zhang Zhen, initiated and led the change in strategy in response to their assessment of the Soviet threat based on the tank and air operations in the 1973 Arab-Israeli War. The 1993 strategy was adopted after Deng restored party unity following the leadership split during and after the violent suppression of the 1989 demonstrations in Tiananmen Square. Senior PLA officers, especially Liu Huaqing, Chi Haotian, Zhang Zhen, and Zhang Wannian, initiated the change in strategy following the demonstration of new kinds of military operations in the 1990-91 Gulf War.

However, one change in China's military strategy, in 1964, cannot be explained by this argument. It represents the only instance where the top party leader—in this case, Mao Zedong—intervened in military affairs to change strategy. Otherwise, senior military officers have initiated all other changes in China's military strategy. The 1964 strategy did not contain a new vision of warfare, but called upon the PLA to return to an approach it had honed in the 1930s during the civil war—mobile

warfare and luring the enemy in deep. Nevertheless, the case demonstrates how a split within the leadership and growing party disunity can distort or disrupt the process of strategic decision-making. Mao intervened not to enhance China's security, but as part of his attack on revisionists within the party leadership that would culminate in 1966 with the launch of the Cultural Revolution.

The book's final contribution is to explain why, in contrast to its conventional military strategy, China's nuclear strategy has remained constant over the same period of time. The reason is simple: China's top party leaders have never delegated responsibility for nuclear strategy to senior military officers. China's nuclear strategy is constrained by China's national nuclear policy, which remains the purview of top party leaders. Because nuclear strategy is subordinate to China's nuclear policy, it is an issue that can only be decided by the highest levels of the party. Unlike the strategy for conventional operations, senior military officers have never been empowered to initiate change in nuclear strategy.

### Technology and human rights

Joi Ito



"Many of my activities these days are focused on the prevention of misuse of technology in the future, but it requires more than just bolting ethicists onto product teams...it involves a fundamental shift in our priorities and a redesign of the relationship of the humanities and social sciences with engineering and science in academia and society."

man rights crisis. I wasn't sure what I would say because I'm definitely not an expert on this topic. But as I dove into researching what is happening to the Uyghur community in China, I realized that it connected to a lot of the themes I have run up against in my own work, particularly the importance of considering the ethical and social implications of technology early on in the design and development process. The Uyghur human rights crisis demonstrates how the technology we build, even with the best of intentions, may be used to surveil and harm people. Many of my activities these days are focused on the prevention of misuse of technology in the future, but it requires more than just bolting ethicists onto product teams—I think it involves a fundamental shift in our priorities and a redesign of the relationship of the humanities and social sciences with engineering and science in academia and society. As a starting point, I think it is critically important to facilitate conversations about this problem through events like this one.

I was asked to make some remarks at the MIT-Harvard conference on the Uyghur hu-

First of all, I'm very grateful to all of the people who have been working on this topic and for helping me get more informed. I'm broadly interested in human rights, its relationship with technology and our role as Harvard and MIT and academia in general to intervene in these types of situations. So I want to talk mainly about that.

One of the things to think about not just in this case, but also more broadly, is the role of technology in surveillance and human rights. I specifically want to address the continuing investment in and ascension of the engineering and sciences in the world through ventures like MIT's new Schwarzman College of Computing, in terms of their influence and the scale at which they're being deployed. I believe that thinking about the ethical aspects of these investments is essential.

I remember when JJ Abrams, one of our Director's Fellows and a film director for those of you who don't know, visited the Media Lab. We have 500 or so ongoing projects at the Media Lab and he asked some of the students, "Do you do anything that involves things like war or surveillance or things that you know, harm people?" And all of the students said, "No, of course we don't do that kind of thing. We make technology for good." And then he said, "Well let me re-frame that question, can you imagine an evil villain in any of my shows or movies using anything here to do really terrible things?" And everybody went, "Yeah!"

What's important to understand is that most engineers and scientists are developing tools to try to help the world, whether it's trying to model the brains of children in order to increase the quality and the effectiveness of education, or using sensors to help farmers grow crops. But what most people don't spend enough time thinking about is the dual use nature of the technology—the fact that technology can easily be used in ways that the designer did not intend.

Now, I think there are a lot of arguments about whose job it is to think about how technology can be used in unexpected and harmful ways. If I took the faculty in the Media Lab and put them on a line where at one end, the faculty believe we should think about all the social implications before doing anything, and at the other end they believe we should just build stuff and society will figure it out, I think there would

Joi Ito was one of several speakers at the MIT-Harvard conference on the Uyghur human rights crisis on April 20, 2019

Photo: Laura Kerwin

"My argument is that we actually have to think more about the social implications of technology before designing it."

be a fairly even distribution along the line. I would say that at MIT that's also roughly true. My argument is that we actually have to think more about the social implications of technology before designing it. It's very hard to un-design things, and I'm not saying that it's an easy task, and I'm not saying that we have to get everything perfect, but I think that having a more coherent view of the world and these implications is tremendously important.

The Media Lab is a little over 30 years old, and I've been there for eight years, but I was very involved in the early days of the internet. The other day, I was describing to Susan Silbey, the current faculty chair at MIT, how when we were building the internet we thought if we could just provide a voice to everyone, if we could just connect everyone together, we would have world peace. I really believed that when we started, and I was expressing to Susan how naïve I feel now that the internet has become something that's more akin to the little girl in the Exorcist, for those of you who have seen the movie. But Susan, being an anthropologist and historian said, "Well when you guys talked about connecting everybody together, we knew. The social scientists knew that it was going to be a mess."

One of the really important things I learned from my conversation with Susan was the extent to which the humanities have thought about and fought about a lot of these things. History has taught us a lot of these things. I know that it's somewhat taboo to invoke Nazi Germany in too many conversations, but if you look at the data that was collected in Europe to support social services, much of it was later used by the Nazis to roundup and persecute the Jews. And it's not exactly the same situation, but a lot of the databases that we're creating to help poor and disadvantaged families are also being used by the immigration services to find and target people for deportation.

Even the databases and technology that we use and create for the best of intentions can be subverted depending on who's in charge. So thinking about these systems is tremendously important. At MIT, we are working with tech companies that are working directly on surveillance technology or are in some way creating technologies that could be used for surveillance in China. Again thinking about the ethical issues is very important. I will point out that there are whole disciplines that work in this, MIT's Program in Science, Technology, and Society (STS), that's really what they do. They think about the impact of science and technology in society. They think about it in a historical context and provide us with a framework for thinking about these things. Thinking about how to integrate anthropology and STS into both the curriculum and the research at MIT is tremendously important.

The other thing to think about is allowing engineers more freedom to explore the application and impact of their work. One of the problems with scholarship is that many researchers don't have the freedom to fully test their hypotheses. For example, in January, Eric Topol tweeted about his paper that showed that of the 15 most impactful machine learning and medicine papers that had been published, none of

them had been clinically validated.¹ Many cases, in machine learning, you get some data, you tweak it and you get a very high effectiveness and then you walk away. Then the clinicians come in and they say "oh, but we can't replicate this, and we don't have the expertise" or "we tried it but it doesn't seem to work in practice." We're not providing, if you're following an academic path, the proper incentives for the computer scientists to integrate with and work closely with the clinicians in the field. One of the other challenges that we have is that our reward systems and the incentives that are in place don't encourage technologists to explore the social implications of the tech they produce. When this is the case, you fall a little bit short of actually getting to the question, "well, what does this actually mean?"

I co-teach a course at Harvard Law School called the Applied Challenges in Ethics and Governance of Artificial Intelligence, and through that class we've explored some research that considers the ethical and social impact of AI. To give you an example, one Media Lab project<sup>2</sup> that we discussed was looking at risk scores used by the criminal justice system for sentencing and pre-trial assessments and bail. The project team initially thought "oh, we could just use a blockchain to verify the data and make the whole criminal sentencing system more efficient." But as the team started looking into it, they realized that the whole criminal justice system was somewhat broken. And as they started going deeper and deeper into the problem, they realized that while these prediction systems were making policing and judging possibly more efficient, they were also taking power away from the predictee and giving it to the predictor.

Basically, these automated systems were saying "okay, if you happen to live in this zip code, you will have a higher recidivism rate." But in reality, rearrest has more to do with policing and policy and the courts than it does with the criminality of the individual. By saying that this risk score can accurately predict how likely it is that this person will commit another crime, you're attributing the agency to the individual when actually much of the agency lies with the system. And by focusing on making the prediction tool more accurate, you end up ignoring existing weaknesses and biases in the overall justice system and the cause of those weaknesses. It's reminiscent of Caley Horan's writing on the history of insurance and redlining. She looks at the way in which insurance pricing, called actuarial fairness, became a legitimate way to use math to discriminate against people and how it took the debate away from the feminists and the civil rights leaders and made it an argument about the accuracy of algorithms.

The researchers who were trying to improve the criminal risk scoring system have completely pivoted to recommending that we stop using automated decision making in criminal justice. Instead they think we should use technology to look at the long term effects of policies in the criminal justice system and not to predict the criminality of individuals.

But this outcome is not common. I find that whether we're talking about tenure cases or publications or funding, we don't typically allow our researchers to end up in places that contradict the fundamental place where they started. So I think that's another thing that's really important. How do we create both research and curricular opportunities for people to explore their initial assumptions and hypotheses? As we think about this and this conversation, we should ask "how can we integrate this into our educational system?"

Now I want to pivot a little bit and talk about the role of academia in the Uyghur crisis. I know there are people who view this meeting as provocative or political and it reminds me of the March for Science that we had several years ago. I gave a talk at the first March for Science. Before the talk, when I was at a dinner table with a bunch of faculty (I won't name the faculty), someone said, "Why are you doing that? It's very political. We try not to be political, we're just scientists." And I said, "Well when it becomes political to tell the truth, when being supportive of climate science is political, when trying to support fundamental scientific research is political, then I'm political." So I don't want to be partisan, but I think if the truth is political, then I think we need to be political.

And this is not a new concept. If you look at the history of MIT, or just the history of academic freedom (there's the Statement of Principles on Academic Freedom and Tenure)<sup>3</sup> you will find a bunch of interesting MIT history. In the late 40s and 50s, during the McCarthy period, society was going after communists and left wing people out of the fear of Communism. And many institutions were turning over their left wing Marxist academics, or firing them under pressure from the government. But MIT was quite good about protecting their Marxist affiliated faculty, and there's a very famous case that shows this. Dirk Struik, a math professor at MIT, was indicted by the Middlesex grand jury on charges of advocating the overthrow of the US and Massachusetts governments in 1951. At the time MIT suspended him with pay, but once the court abandoned the case due to lack of evidence and the fact that states shouldn't be ruling on this type of charge, MIT reinstated Professor Struik. This is a quote from the president at the time, James Killian, about the incident.

"MIT believes that its faculty, as long as its members abide by the law, maintain the dignity and responsibility of their position, must be free to inquire, to challenge and to doubt in their search for what is true and good. They must be free to examine controversial matters, to reach conclusions of their own, to criticize and be criticized, and only through such unqualified freedom of thought and investigation can an educational institution, especially one dealing with science, perform its function of seeking truth."

Many of you may wonder why we have tenure at universities. We have tenure to protect our ability to question authority, to speak the truth and to really say what we think without fear of retribution.

"...when it becomes political to tell the truth, when being supportive of climate science is political, when trying to support fundamental scientific research is political, then I'm political."

There's another important case that demonstrates MIT's willingness to protect its faculty and students. In the early 1990s, MIT and a bunch of Ivy League schools came up with this idea to provide financial aid for low income students on a need basis. The Ivy League schools got together to coordinate on how they would assess need and how they would figure out how much financial aid to give to students. Weirdly, the United States government sued the Ivy League schools saying that this was an antitrust case, which was ridiculous because it was a charity. Most of the other universities caved in after this lawsuit, but Chuck Vest the president at the time said, "MIT has a long history of admitting students based on merit and a tradition of ensuring these students full financial aid." He refused to deny students financial aid, and a multi-year lawsuit ensued, in which eventually MIT won. And then this need-based scholarship system was enshrined in actual policy in the United States.

Many of the people who are here at MIT today probably don't remember this, but there's a great documentary film that shows MIT students and faculty literally clashing with police on these streets in an anti-Vietnam War protest 50 years ago. So in the not so distant past, MIT has been a very political place when it meant protecting our freedom to speak up.

More recently, I personally experienced this support for academic freedom. When Chelsea Manning's fellowship at the Harvard Kennedy School was rescinded, she emailed me and asked if she could speak at the Media Lab. I was thinking about it, and I asked the administration what they thought, and they thought it was a terrible idea. And when they told me that I said, "You know, now that means I have to invite her." I remember our provost Martin Schmidt saying, "I know." And that's what I think is wonderful about being here at MIT: the fact that the administration understands that faculty must be allowed to act independently of the Institute. Another example is when the administration was deciding what to do about funding from Saudi Arabia. The administration released a report,<sup>4</sup> which has a few critics, that basically said, "we're going to let people decide what they want to do." I think each group or faculty member at MIT is permitted to make their own decision about whether to accept funding from Saudi Arabia. MIT, in my experience, has always stood by the academic freedom of whatever unit at the Institute that's trying to do what it wants to do.

I think we're in a very privileged place and I think that it's not only our freedom, but our obligation to speak up. It's also our responsibility to fight for the academic freedom of people in our community as well as people in other communities, and provide leadership. I really do want to thank the organizers of this conference for doing that. I think it's very bold, but I think it's very becoming of both MIT and Harvard. I read a very disturbing report from Human Rights Watch that talked about how Chinese scholars overseas are starting to have difficulties in speaking up, which I think is somewhat unprecedented because of the capabilities of today's technology. And I think there are similar reports about scholars from Saudi Arabia. The ability of these countries to surveil their citizens overseas and impinge on their academic freedom is

a tremendously important topic to discuss, and think about both technically, legally and otherwise. I think it's also a very important thing for us to talk about how to protect the freedoms of students studying here.

#### References

1@EricTopol, Jan 26, 2019, 9:51 AM, https://twitter.com/erictopol/status/1089219196032958464?lang=en

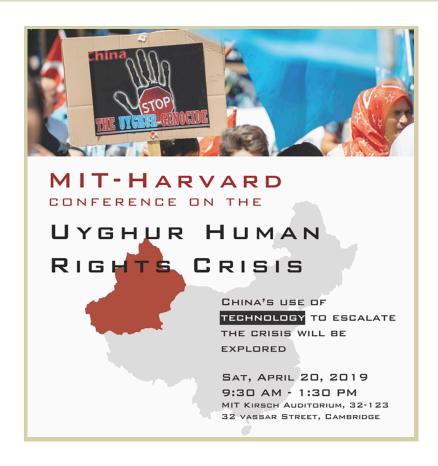
2 MIT Media Lab Project, Humanizing AI in Law (HAL), https://www.media.mit.edu/projects/HAL/overview/

3 American Association of University Professors, 1940 Statement of Principles on Academic Freedom and Tenure, December 31, 1915, and January 1, 1916, https://www.aaup. org/report/1940-statement-principles-academic-freedom-and-tenure

4 MIT News Office, Report reassesses MIT's relationship with Saudi Arabia, December, 6, 2018, http://news.mit.edu/2018/provost-report-assesses-mit-relationships-saudi-arabian-entities-1206

5 Human Rights Watch China: Government Threats to Academic Freedom Abroad, March 21, 2019, https://www.hrw.org/news/2019/03/21/china-government-threats-academic-freedom-abroad

Joi Ito's transcript is licensed under CC BY 2.0



The MIT-Harvard Conference on the Uyghur Human Rights Crisis was organized by Zulkayda Mamat, MIT undergraduate, School of Engineering.

The conference aimed to present the police state in China, where over one million innocent Uyghurs and other Turkic Muslims have been forced into concentration camps since 2016; explore China's use of technology to escalate the crisis by conducting digital, biological, and cyber surveillance on the Uyghur; introduce the biopolitics of China's "war on terror" in countering Uyghur people as an ethnicity; and open a dialogue on our role as leaders, educators, and technologists in engaging with China while being aware of its massive human rights violations.

#### Speakers:

Sean R Roberts, George Washington University; Darren Byler, University of Washington; Rian Thum, Loyola University New Orleans; Jessica Batke, ChinaFile; Gene A Bunin, Xinjiang Victims Database; and Joi Ito, MIT.

The conference was made possible through the generous support of the MIT Center for International Studies (CIS) Starr Forum, Ra- dius at MIT, Harvard University's Committee on Inner Asian and Altaic Studies, Harvard FXB Center for Health and Human Rights, MIT Student Activities Office, and the MIT CIS Human Rights and Technology Program.

The event video is available on the MIT CIS YouTube channel.

précis spring 2019 . 13

# précisinterview

# R David Edelman



"Public policy that happens in a vacuum, without any engagement with thought leadership and academia, is usually devoid of history, context, and evidence. That's the most dangerous place the policy can be in."

précis: You're back in academia after working in government for about a decade, so let's do some grading. How well do you think the United States is doing at handling the policy implications of technological change?

**RDE:** On Capitol Hill, let's put it this way: the grade Congress would get for understanding and managing technology policy issues would not make any of my MIT students happy.

At this phase in our history, we cannot afford to have any members of Congress not devoting the time or energy to understanding technology issues—and when it comes to tech literacy, we're far from 100% among our elected officials. I will say though I am encouraged by a few developments. I'm encouraged that there are a handful of members—of all ages, but including some newly elected—who have decided to take these issues seriously and either start to build them into their brand of accountable representation, or talk about them as key to delivering on the mission of smarter government. I just wish they were more numerous.

The executive branch has recently started to understand that technology is not optional for senior-level roles in the government. Today I don't think you would have a cabinet member walk in and declare with some sort of fossilized pride that technology was something to be handled by low level bureaucrats.

Looking ahead, I think there is a real opportunity to seize on the momentum, a lot of which was built in the Obama administration, and some of which has been built in the Trump administration. It is to be commended that the Trump administration wrote and executed an executive order on artificial intelligence. There's a lot of controversy over the value of that executive order. For instance, it didn't have new money, and it lacked some specificity. Those sorts of complaints may well be justified. But as someone who has written a half-dozen similar documents, getting the president to sign an executive order doesn't just happen overnight. The administration has put a stake in the ground and has actually sought to build international consensus on these issues. In fact, it's quite a departure from what many people regard as the Trump foreign policy or the Trump policy approach.

In the end though, the real grade that we should be giving to the administration hasn't come out yet. We simply don't know, because this administration like all administrations will need to be judged on the outcomes of what they do.

#### précis: Compared to the US, who around the world would be the star students?

**RDE:** I think some look to the Estonians for having a leadership role internationally on cybersecurity, particularly relative to the size of the country. Estonia has certainly been a clear leader in both national cybersecurity policy and domestic technology governance. Estonians pay taxes online and vote online. Israel has distinguished itself in the digital economy. There are tremendous Israeli startups that are being acquired, including by US companies, for vast sums of money. They have found a formula that works for making Israeli innovation synonymous with high quality innovation.

R David Edelman is director of the Project on Technology, the Economy, & National Security (TENS), part of the MIT Internet Policy Research Initiative (IPRI). He holds joint appointments in the Computer Science & Artificial Intelligence Lab (CSAIL) and the Center for International Studies (CIS). Edelman earned his master's and doctoral degrees from Oxford, where his scholarship focused on the intersection of international security and cybersecurity.

He comes to MIT following a distinguished career managing domestic and foreign policy in the US federal government.

Photo: International House

## précisinterview

Then there's the student in the class who is the biggest troublemaker. That's Russia, without question. North Korea gets sent to detention as well. But Russia has been trying since long before the internet age to use technology in innovative ways to create disruption in the international system, to extend their foreign policy aims by other means and to test the boundaries of conventional security and governance. I think to those of us who've been studying cybersecurity for a long time, seeing Russian doctrine for 15, 20 years, know that Russia's actions are, on some level, the culmination of what the US has attempted to do in terms of integrating technology into longstanding foreign policy principles. It just so happens that the longstanding foreign policy principles of the Russian Federation are focused on de-legitimizing the Western project of democratic governance. That is unhelpful to say the least.

précis: You are finishing a book on the international dimensions of cybersecurity. What in particular inspired the project, and what is it focused on?

**RDE:** In 2008, I sat in a meeting at a reasonably secure building and a reasonably secure room that was all about whether or not the US government would pursue a particular target via cyber means. Just under 10 years later I was in that same room re-litigating the same question. Out of 30 people in the room, 29 were different, and the lessons learned from the prior decision were limited at best. It was groundhog day for public policy. Those episodes show that we are still not clear on how cybersecurity maps onto international security.

When I was in the government, it was my job in part to help figure out how US policy in areas like human rights, innovation, free trade, protection of intellectual property, and national defense, fit together with a global, interoperable, secure, and reliable internet. Over the course of the last administration, we developed a vocabulary for fitting many of those pieces in. However, the piece that seems to still be challenging policymakers is the dynamic of restraint.

For a while we lacked an idea of what the norms of cyberspace should be and what states might make of them. Now we're at a place where there seems to be some growing consensus over how rules and laws might apply to cyberspace, but with very little understanding of what the actual practical effect will be of these rules. We need to know: what forces of international relations will restrain the otherwise rational desire for states to use offensive cyber tools, particularly in large scale attacks against each other?

The book does two things. First it analyzes how international laws and norms might be applied to this rational desire. Second, it asks what we know based on recent international history about the actual efficacy of these tools. What do we know about whether or not restraint will be effective? I think upon further analysis, it becomes clear that there is actually a rather narrow path to limiting states recourse to offensive cyber tools.

précis: What does that narrow path look like? Is it more like the implicit norms of nuclear deterrence, or explicit agreements like the laws of armed conflict?

Today, if you upload a video to YouTube where copyrighted music is even playing in the same room that you film, chances are the system will reject your video before it ever sees the light of day. Technically, computationally, much better content moderation is possible. So the question that we need to confront as a society right now is who should be dictating the community standards: the government or the platform? There's a very strong First Amendment argument that says it shouldn't be the government. The reason this question has become so difficult is because a small number of social media companies dominate most of the discourse.

If we were in an environment where multiple competing social media platforms were truly challenging each other for dominance, this conversation would look very different and it would not raise these almost theological debates about the nature of First Amendment jurisprudence. Instead it would be a narrower conversation about how to apply some carefully tailored regulations given the dynamics of different platforms. At the end of the day, no one wants to use a spammy platform. No one wants to be misled by foreign agents into believing something that isn't true, and even fewer want to be manipulated by foreign intelligence services into destabilizing their own democracy.

précis: Conducting policy-relevant research is a core goal for MIT and the Center for International Studies. In your experience of government service, what separated the kind of academic work that helped you do your job from the kind of academic work that was irrelevant to you doing your job?

**RDE:** I would not advise that leading researchers try to chase the headlines, because the pace of innovation in the private sector and even in government articulation of policy is often faster than basic research. You'd think the most policy relevant conversation would be the one that weighs in on the news of the day, but research that starts by asking the most interesting questions is to me the research that actually ends up being the most enduring and the most policy relevant.

We have a challenge here in Cambridge as they do in Palo Alto and anywhere else in translating the significance of our work to public policy. Since coming to MIT, I've seen that the problem doesn't arise because the work coming out of labs and departments is not policy relevant. Our challenge is to communicate with the general public and with policymakers who actually are in a position to make smarter policy using research. Public policy that happens in a vacuum, without any engagement with thought leadership and academia, is usually devoid of history, context, and evidence. That's the most dangerous place the policy can be in. What we're trying to do in the Project on Technology, the Economy, and National Security is to create that connectivity—and to get both researchers and public policy makers in the same room and speaking the same language.

That's what I saw was missing 10 years ago in government. That dialogue—or its absence—will ultimately be the differentiator between tech policy that seems clueless and that which seems prescient and able to confront both today's and tomorrow's challenges.

# précisinterview

**RDE:** If you want the answer to that, you're going to have to take the book out of the library! To give a bit of a preview, I think rumors that deterrence has worked in cybersecurity might be somewhat exaggerated and based on a limited number of data points. Those who completely write off the idea of normative or even formalized regimes of control in this space probably do so at their own peril.

précis: That's a very good bumper sticker. You said that cybersecurity creates a unique set of collective action problems. What makes this domain different from traditional or conventional security domains?

**RDE:** I'm not completely sure that it is different. One thesis of my policy work in the last decade has been trying to apply the lessons of international history and security to this seemingly novel, but often quite understandable, dynamic of technology and cybersecurity.

There are certainly some new dynamics created by new technology. The deterrence dynamic is partly destabilized by the immediacy of action in cyberspace and by the capacity for long-gestation but immediate actions like sabotage. What we call "operational preparation of the environment" raises very interesting questions about state intentions and culpability.

That said, I often caution against over-indexing to these new dynamics. It was once regarded as a truism that "on the internet, no one knows you're a dog" and that "attribution is impossible." We've seen in the context of national cybersecurity that attribution can be swift and surprising. Take the case of North Korea's hack against Sony, where the US government came out very quickly and identified who the perpetrators were.

I think the critical difference is that technology unifies the economic and security conversations in a way that is unusual. The same pipes that carry CYBERCOMMAND's packets are also carrying your Amazon order and your tweets. This is fundamentally a shared infrastructure that creates a new dynamic, but one that is not entirely new. We have dealt with questions of commons before. We have dealt with questions of shared ownership before. All of those are areas that we have to consider as we think about this space, and we now have to do it from a foundation of technical understanding.

précis: One of the places that non-experts can most readily see tension over technology norms is in the question of regulating social media. What are the characteristics of a regulatory framework that's going to successfully moderate interests in openness and privacy?

**RDE:** Silicon Valley's recent attraction to being regulated by the government is a copout. Many of these platforms have a long history of content moderation. People often point to Section 230 of the Communications Decency Act, which grants immunity from liability for internet platforms. But Section 230 has had exceptions to it for quite some time. There have always been exceptions for content like child exploitation, and in the early 2000s provisions were put into place to create affirmative obligations when platforms became aware of copyright infringement.

### MIT Policy Lab launches EdX course

Dan Pomeroy



Dan Pomeroy is the managing director and senior policy advisor of MIT's Policy Lab at the Center for International Studies (PL@ CIS).

Photo: Scott Rudd

The MIT Policy Lab at the Center for International Studies (PL@CIS) recently launched a new EdX course entitled "Tools for Academic Engagement in Public Policy." This short course provides a clear, concise, high quality resource for scientists and engineers who are seeking to inform the development of public policy with their research. By providing a basic overview of how governing bodies work, how policy is made, and specific strategies for impacting this process the PL@CIS hopes to significantly reduce the amount of time it takes for researchers to begin engaging with policymakers and increase their effectiveness at policy outreach.

The content of the course is informed by over four years of PL@CIS (formerly the International Policy Lab) experience working with MIT faculty to develop strategies for engaging with policymakers. The PL@CIS was created to ensure that public policies are informed by the best available research and that scholars understand the potential policy impact of their own work. This online tool seeks to take the lessons learned by the PL@CIS and make them available to the broader research community.

"MIT generates a lot of research with important implications for public policy that unfortunately doesn't always find its way into policy circles," said faculty director Chappell Lawson, associate professor of political science. "Many faculty members here want to have an impact on policy but don't feel familiar enough with how the process works to do so efficiently. Creating an online educational tool to help connect the academic and policy communities is another way MIT can fulfill its mission of helping to solve the world's great challenges."

This short course will provide an essential introduction to the policymaking process through the lens of the US federal government, while providing specific steps researchers can take to engage policy stakeholders and articulate the policy implications of their work. It also includes community discussion forums to receive peer feedback on engagement strategies and to contribute to the online community of scientists interested in informing public policy.

"Academic training rarely covers the importance of engaging with policymakers or provides the tools necessary to do so effectively," said Dan Pomeroy, PL@CIS managing director and senior policy advisor. "When I decided to transition to work in public policy after receiving a PhD in physics, I struggled to understand how to apply my skillset to this new field. The intent of this tool is to provide a resource for both people within academia wanting to engage with policymakers as well as scientists and engineers interested in pursuing a career in public policy."

This course was produced in partnership with Meghan Perdue, SHASS Digital Learning Fellow, and with the support of MIT's Office of Open Learning. It was also sponsored in part by Harvard Medical School's Scientific Citizenship Initiative (SCI).

précis spring 2019 . 19

### Saudi scholar and activist Hala Aldosari joins CIS as the Robert E Wilhelm Fellow



Hala Aldosari earned her PhD in health services research from Old Dominion University, concentrating on the epidemiology of violence against women and its adverse health outcomes in Saudi Arabia. She earned her MSc in medical science from the University of Surrey, United Kingdom.

"It is an honor to receive the fellowship at such a pivotal and transformative moment in the Arab countries."

Hala Aldosari, a Saudi scholar and activist in women's rights in Arab societies, violence against women, and the "guardianship" system in Saudi Arabia, joins the MIT Center for International Studies (CIS) as its Robert E Wilhelm Fellow.

Aldosari arrives to MIT on June 1, 2019, and will spend the academic year conducting research on successful initiatives of women's rights in the Arab countries. In addition, she will use the fellowship to establish an advocacy organization to advance women's and human rights in Saudi Arabia.

Aldosari maintains a women's rights advocacy project online (www.aminah.org) and participates in advocacy efforts and community capacity building aimed at promoting women's rights and combating violence against women in Saudi Arabia. She is an advisory board member for Human Rights Watch in the Middle East and the Gulf Center for Human Rights. She is also serving as a steering committee member in the Harvard-lead initiative, Every Woman, to establish a United Nations global treaty on violence against women.

She has worked as a medical scientist, lecturer, and an administrator in the Saudi health and education sector. She has also worked as a consultant to the Ministry of Health in Saudi Arabia in research and planning of the country's national health policy

A writer and a blogger, Aldosari comments on Saudi political and social affairs. Her writings have been featured in several major media outlets including Foreign Affairs, The New York Times, The Guardian, and Foreign Policy, among others.

In February, she was selected as the inaugural recipient of *The Washington Post's* Jamal Khashoggi Fellowship. The fellowship—a new global opinions program established to honor the late Post columnist Jamal Khashoggi—provides an independent platform for journalists and writers to offer their perspectives from parts of the world where freedom of expression is threatened or suppressed.

"When surveying the turbulence in the Middle East, the Center's concerns include the dissolution of order and optimism in Arab states, the crisis in the Gulf generally, and the quashing of human rights values and aspirations 6-8 years after Arab Spring. We need to understand the region more clearly, and our students should be exposed to first-hand knowledge of pressing issues. Dr. Aldosari is a recognized pioneer on many of these issues and will contribute greatly to our intellectual community. We look forward to welcoming her to MIT," said Richard Samuels, Ford International Professor of Political Science and the director of CIS.

"It is an honor to receive the fellowship at such a pivotal and transformative moment in the Arab countries. I am grateful that it will provide me with a precious opportunity to organize my thinking and research for political and civil reforms in Saudi Arabia."

Aldosari comes to CIS from New York University where she served as a scholar in residence at the Center for Human Rights and Global Justice.

# studentfeature

#### The domestic roots of Chinese assertiveness

Kacie Miura



Kacie Miura explores China's initial shift to a more assertive foreign policy, which started under the leadership of Hu Jintao, and which Xi continues today.

### studentfeature



Kacie Miura is a PhD student in international relations and comparative politics focusing on China's foreign policy.

Photos: MIT Department of Political Science

Under the leadership of Xi Jinping, China's international behavior is widely seen as growing more "assertive," especially with projects like its ambitious Belt and Road Initiative and massive land reclamation projects on disputed features in the South China Sea.¹ However, while Xi has accelerated China's turn toward a more muscular foreign policy, this trend in China's international behavior predates his leadership by half a decade. What explains China's initial shift to a more assertive foreign policy, which started under the leadership of Hu Jintao, and which Xi continues today? As US-China relations have deteriorated, it has become all too easy to attribute China's foreign policy behavior to hostile or revisionist intentions. Doing so, however, risks exacerbating spiral dynamics that cut to the core of the security dilemma between the two states.²

The conventional wisdom among the "China-watching" community is that, following the 2008-09 financial crisis, Beijing jettisoned its status quo-oriented foreign policy in favor of an approach that would better reflect its rise and the US's decline.³ However, this explanation raises the question of why a sudden acceleration in China's relative rise would lead Beijing to adopt a more strident foreign policy. The answer can be found in simultaneous changes in China's domestic politics. Under Hu Jintao, a left-leaning coalition gained prominence, as did bureaucratic actors who championed this coalition's nationalist and populist policy preferences. This shift in coalitional politics continues to contribute to China's foreign policy assertiveness today.

#### A coalitional shift in power

When Hu Jintao took power in 2002, elite politics were dominated by an internationalist coalition that had risen under Hu's predecessor, Jiang Zemin. In the aftermath of the Tiananmen Square Massacre, Deng Xiaoping, the chief architect behind the opening and reform policies of the 1980s, handpicked Jiang to succeed him on the condition that Jiang continue China's liberal economic reforms. Jiang consolidated his power in the early 1990s by appointing loyal technocrats from his home base of Shanghai, including many who had expertise in trade and foreign affairs. Chief among these technocrats was Premier Zhu Rongji, the former Shanghai party secretary. Zhu's appearance at MIT in April 1999 encapsulates the foreign policy program of the internationalist coalition: acknowledging "disturbances"; in US-China relations, but emphasizing the importance of a "friendly cooperative relationship"; and promising that China would "never be a threat to the United States. Ju's remarks reflected the Chinese leadership's emphasis on a stable external environment and positive relations with the United States in order to fuel China's rapid economic growth.

During Hu Jintao's presidency, from 2002 to 2012, the coalitional balance of power tilted noticeably leftward. This shift, however, did not happen overnight. Hu inherited a Politburo Standing Committee stacked with Jiang's acolytes. To counterbalance Jiang's influence, Hu drew support from the emerging nationalist-populist coalition, which blamed China';s rising income inequality and other social ills on the liberal market reforms of the Deng and Jiang eras. Although Hu refrained from aligning entirely with the leftist coalition, he selectively catered to their concerns. Most notably, he promoted a doctrine based on building "a socialist harmonious society." For Hu,

aligning with the left on key issues made sense, given that he and his closest associates rose through the ranks of the Communist Youth League, which tends to produce cadres who specialize in party affairs and who have work experience in China's poorer, inland provinces.<sup>10</sup>

Hu's coalition, which received a boost when Jiang's faction was sidelined at the 17th Party Congress in 2007, became even more influential following the 2008-09 financial crisis. "New Left" scholars, who provided the intellectual basis for the leftist coalition, triumphantly pointed to the financial crisis as an example of the follies of market capitalism. They instead praised the virtues of the "Chongqing model" of heavy-handed state interventions in the local economy spearheaded by municipal party boss Bo Xilai. As Cheng Li observed in the wake of the crisis, although factional competition has long been a feature of Chinese politics, "for the first time we now see a situation in which two factions, or coalitions, share power and influence."

#### Foreign policy under pressure from the left

The leftist coalition's growing influence in elite politics under Hu Jintao's leadership had important implications for China's foreign policy. Leftist voices thrived as the breadth of bureaucratic actors involved in China's foreign policy process expanded. Inward-oriented actors like the energy sector became increasingly active participants in China's diplomatic affairs, opposing Western-led efforts to impose multilateral sanctions against certain oil-rich regimes. The rising influence of non-traditional foreign policy actors came at the expense of the Ministry of Foreign Affairs, which has long sought to guard China's international image and promote cooperative relations with the US and regional countries.

During this period, the Chinese public sphere also became substantially more vibrant, with commercial and social media playing an unprecedented role in shaping public opinion, including on foreign policy issues. Leftist nationalists took to criticizing the strategic concept of "peaceful rise," which Hu endorsed early on. They also raised opposition to China's long-held foreign policy doctrine of "keeping a low profile," which they regarded as overly accommodating to the United States.<sup>17</sup> Vocal military hawks similarly deployed the language of nationalism in the public sphere to advance their parochial interests.<sup>18</sup> As Da Wei, a leading Beijing-based foreign policy expert observed, under "this pressure from public opinion, or perhaps 'imagined public opinion,' government departments refuse to be seen as too soft when making policy decisions"<sup>19</sup>

This more nationalistic, leftist turn in domestic politics heightened the risks for the Hu administration of appearing weak in interactions with the United States. The leftists had helped Hu by serving as a counterweight to the internationalist technocrats loyal to Jiang Zemin. Yet toward the end of Hu's time in office, it became clear that the leftists enjoyed support from powerful new rivals to Hu, such as Chongqing party secretary Bo Xilai.<sup>20</sup>

### studentfeature

"If the US persists in basing China policy on shaky assumptions about Beijing's intentions, it risks adopting foreign policies that will only exacerbate the spiraling competition that now characterizes US-China relations."

#### Continued assertiveness under Xi Jinping

In October 2012, Xi Jinping inherited a party divided by a major scandal that culminated in the purge of Bo Xilai under the pretense of corruption charges. <sup>21</sup> Xi moved quickly to rid the party of threats to his leadership, launching an anti-corruption campaign that has since ensnared multiple senior officials. <sup>22</sup> Xi also took measures to recentralize China's foreign policy-making process. <sup>23</sup> The bold measures that Xi has taken to consolidate power have contributed to his reputation as a strong leader who is fully in control of China's domestic and foreign policies. <sup>24</sup> Despite the appearance of strength, Xi cannot afford to ignore the interests of China's competing coalitions any more than Hu could before him. Through his expansive anti-corruption campaign, Xi has created enemies among both the internationalists and the leftists, raising the stakes of satisfying the demands of each.

His efforts to play to both camps are reflected by his simultaneous promotion of two very different strategic concepts. On the one hand, Xi has promoted a "new model of great power relations," a formulation that advances internationalist preferences for limiting detrimental competition and promoting cooperation with the United States.<sup>25</sup> On the other hand, Xi has championed the "China dream," which plays to leftist calls for national rejuvenation and less deference to the West. We can thus expect a continuation of assertive foreign policy behavior paired with compensatory efforts to keep China's foreign relations with the West stable. Chinese assertiveness is in many ways an outgrowth of internal political pressures, and not necessarily due to hostile or revisionist intentions. If the US persists in basing China policy on shaky assumptions about Beijing's intentions, it risks adopting foreign policies that will only exacerbate the spiraling competition that now characterizes US-China relations.

#### References

- 1 Andrew Chatzky and James McBride, "China's Massive Belt and Road Initiative," Council on Foreign Relations, February 21, 2019, https://www.cfr.org/backgrounder/chinas-massive-belt-and-road-initiative; "Xi Jinping Promises More Assertive Chinese Foreign Policy," *Financial Times*, March 20, 2018.
- 2 For more on how bureaucratic politics in the US and China interact in ways that exacerbate the security dilemma, see: Kacie Miura and Rachel Esplin Odell, The Second Image Squared: The Interactive Effects of Bureaucratic Politics in US-China Relations, 2009-2016," Working Paper (2019). For more on spiral dynamics between the US and China in the South China Sea, see: M. Taylor Fravel and Kacie Miura, "Stormy Seas: The South China Sea in US-China Relations," Working Paper (2019).
- 3 Thomas Christensen, "The Advantages of an Assertive China," Foreign Affairs, February 21, 2011, https://www.foreignaffairs.com/articles/east-asia/2011-02-21/advantages-assertive-china.
- 4 Ezra Vogel, Deng Xiaoping and the Transformation of China (Harvard University Press, 2011), p. 669.
- 5 Cheng Li and Lynn White, "The Fifteenth Central Committee of the Chinese Communist Party: Full-Fledged Technocratic Leadership," *Asian Survey* (1998), Vol. 38, No. 3.
- 6 "Transcript of Premier Zhu Rongji's Speech at MIT," MIT News, April 15, 1999, http://news.mit.edu/1999/zhufull.
- 7 Wang Zhengxu, "Hu Jintao's Power Consolidation: Groups, Institutions, and Power," *Issues & Studies* (2006), Vol. 42, No. 4, p. 99.

8 Susan Shirk, *China: Fragile Superpower* (Oxford University Press, 2007), pp. 51-2. Shirk describes this reasoning for Hu's tilt to the left as the "dominant theory," but acknowledges that "no one can point to any visible evidence of this challenge."

9 CPC Session Concludes, Elevating Social Harmony," *Xinhua*, October 11, 2006, accessed at: http://www.gov.cn/english/2006-10/11/content\_410337.htm.

10 Cheng Li, "Hu's Policy Shift and the Tuanpai's Coming-of-Age," Cheng Li, *China Leadership Monitor* (2005), No. 15.

11 Bo Zhiyue and Chen Gang, "Ascendance of China's New Left Amidst the Global Financial Crisis," Zheng Yongnian and Sarah Yueting Tong, eds., *China and the Global Economic Crisis* (Singapore: World Scientific Publishing, 2010), p. 241.

12 Charles W. Freeman III and Wen Jin Yuan, "China's New Leftists and the China Model Debate after the Financial Crisis," Center for Strategic and International Studies, July 2011.

13 Joseph Fewsmith, "Bo Xilai and Reform: What Will Be the Impact of His Removal?" *China Leadership Monitor* (2012), No. 38.

14 "One Party, Two Coalitions in China's Politics," Brookings Institute, August 16, 2009, https://www.brookings.edu/opinions/one-party-two-coalitions-in-chinas-politics/.

15 Richard McGregor, "Chinese Diplomacy 'Hijacked' by Big Companies, *Financial Times*, March 16, 2008, https://www.ft.com/content/28b21418-f386-11dc-b6bc-0000779fd2ac.

16 Jing Sun, "Growing Diplomacy, Retreating Diplomats—How the Chinese Foreign Ministry has been Marginalized in Foreign Policymaking," Journal of Contemporary China (2017), Vol. 26, No. 105.

17 Robert Suettinger "The Rise and Descent of 'Peaceful Rise'," *China Leadership Monitor* (2004), No. 12; Yan Xuetong, "From Keeping a Low Profile to Striving for Achievement," *The Chinese Journal of International Politics* (2014), Vol. 7, No. 2.

18 Andrew Scobell and Scott W. Harold, "An 'Assertive' China? Insights from Interviews," *Asian Survey* (2013), Vol. 9, No. 2, p. 117; Michael Swaine, "China's Assertive Behavior Part Three: The Role of the Military in Foreign Policy," *China Leadership Monitor* (2012), No. 36.

19 Da Wei, "Has China Really Become Tough?" China Security (2011), Vol. 6, No. 3.

20 Joseph Fewsmith, "Bo Xilai and Reform: What Will Be the Impact of His Removal?"

21 For more on the political motivations for and implications of Bo's removal, see Ibid.

22 "Charting China's 'Great Purge' Under Xi," BBC, October 23, 2017, https://www.bbc.com/news/world-asia-china-41670162.

23 "Xi Stresses Centralized, Unified Leadership of CPC Central Committee over Foreign Affairs," Xinhua, May 15, 2018, http://www.xinhuanet.com/english/2018-05/15/c\_137181357.htm.

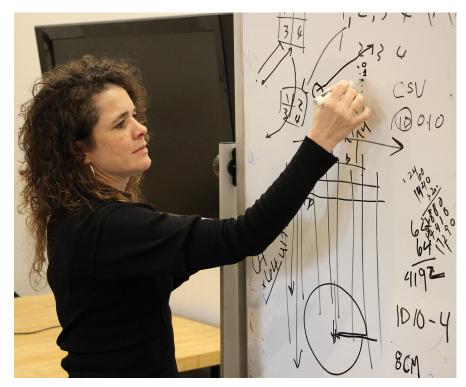
24 In 2018, Forbes even named Xi Jinping the "world's most powerful person." "The World's Most Powerful People 2018," Forbes, May 8, 2018, https://www.forbes.com/sites/davidewalt/ 2018/05/08/the-worlds-most-powerful-people-2018/#8fcafc76c472.

25 Yuan Peng, "Guanyu Goujian ZhongMei Xinxing Daguo Guanxi de Zhanlue Sikao," *Xiandai Guoji Guanxi* (2012), No. 5, p. 5.

précis spring 2019 . 25

### 3Q: Sarah Williams on mapping urban transport

Sarah Williams is combining her skills as a geographer, architect, data scientist, and city planner to create data for civic change. Her latest project is an open-platform resource center for Latin American and Caribbean cities.



Imagine that you're a city planner who needs to make decisions about where to place public housing, amenities, or critical services, but you don't have a complete picture of how people move throughout the city. You simply don't have the data needed to make these decisions. That is the case for 92 percent of the world's largest low- and middle-income cities faced with transportation data deficits. Add informal transit into the picture—matatus in Nairobi, colectivos in Mexico City, jeepneys in Manila—and the situation gets even more complex since these modes operate outside of formal public transportation and their routes and schedules tend to be irregular. Not every city has the means of creating or collecting data on informal transit to get that full picture of the network.

#### Q: What is your new initiative and what do you hope to accomplish?

A: We're creating an open platform for anyone who is interested in accessing tools for mapping urban informal transit in Latin American and Caribbean cities. Transportation data is essential for economic development, and the goal is to make creating and collecting transportation data easier.

Our resource center will link people to the right resources and tools to create transportation data that can influence policy outcomes. We're linking city transit operators, local governments, nonprofit and civic organizations, startups, and researchers knowledge network on policy, data, and mobility. Overall, the resource center's efforts contribute to the United Nations Sustainable Development Goal 11 to "make cities inclusive, safe, resilient and sustainable" and to target 11.2, which calls for "safe, affordable, accessible, and sustainable transport systems for all."

to open access data collection and analysis tools, tutorials, case studies, and a global

The MIT Civic Data Design Lab's main partners for this project are the Inter-American Development Bank and Mastercard Center for Inclusive Growth, and it will be led by World Resources Institute Mexico, the MIT Policy Lab at the Center for International Studies (PL@CIS), and Columbia University's Earth Institute.

# Q: What are the main challenges to collecting urban data in this region and how are you addressing those challenges?

A: When it comes to developing cities, one major challenge is that data is scarce. This is the case across many sectors but especially urban transportation. Another challenge is that governments, NGOs, transit operators, and other actors don't know how to access funds to pay for data collection, and there is lack of knowledge about the tools that are available for accomplishing this. On top of everything, transportation networks in developing cities are rarely unified. There are hundreds of operators across public transit and informal transit that are not necessarily coordinated with each other in terms of who goes where and who serves whom. This presents challenges to urban planning, reaching sustainable development targets, and providing accessibility to public transit and amenities in cities.

To address these challenges, we coordinate the right stakeholders to be part of transit mapping initiatives, help connect them to funding sources, train people to develop transit data in a standardized format, show people who use transit data as an analysis tool, and connect people to the local tech community to build new products with the transit data.

#### Q. How did you become interested in urban transportation?

A: I wasn't always interested in transportation, but when I saw how severe congestion in Nairobi could bring the city to a standstill, I knew I needed to get involved and use my skills to address critical transportation problems. I quickly learned how the crippling problems I saw in Nairobi also afflict other developing cities.

The resource center that we've launched is largely inspired by the Civic Data Design Lab's Digital Matatus project in Nairobi. Launched in 2012, Digital Matatus began as a collaboration between MIT, Columbia University, and the University of Nairobi. The project captured transportation data for Nairobi's informal matatu network and resulted in the development of mobile routing applications and a new transit map for the city. The data, maps and apps are now free and available to the public, transforming the way residents of Nairobi navigate and think about their transportation system.

Sarah Williams is associate professor of technology and urban planning.

Photo: Laura Kerwin

### Learning to study a painful past

Peter Dizikes, MIT News



If you ask MIT associate professor Lerna Ekmekçioğlu how she wound up in academia, she has a straightforward answer. "I was born a historian," Ekmekçioğlu says. "It was my destiny." Lerna Ekmekçioğlu is the McMillan-Stewart Associate Professor of History at MIT, and an affiliate of the Women and Gender Studies Program and the Center for International Studies.

Photo: Scott Brauer

That natural affinity for history has propelled her through the ranks of academia, as a pioneering scholar of Armenians in Turkey, including Armenian women. Her specialty is a complex topic involving a historical catastrophe: the role of women in society after the 1915 Armenian genocide.

More specifically, Ekmekçioğlu studies how Armenian women helped keep their community intact, even while transforming it by introducing feminist ideas. Her best-known book, "Recovering Armenia: The Limits of Belonging in Post-Genocide Turkey," published in 2016 by Stanford University Press, reconstructs the life of the community of survivors, including its feminist voices, in the first decades after World War I.

Ekmekçioğlu's basic interest in this subject is not hard to account for. She grew up in Istanbul, Turkey, as part of the small Armenian community remaining there over the decades. In this sense, Ekmekçioğlu really was born to be an Armenian historian. Understanding the world she grew up in meant understanding its past.

"I always had a curiosity about Armenian history," Ekmekçioğlu notes. Still, it is a big leap from personal curiosity to a sustained career. And, as she recounts it, "I did not have any role models, really," in academia, because there was so little work about what she wanted to study.

For this reason, Ekmekçioğlu's career has two layers. One is her research and teaching—for which Ekmekçioğlu was awarded tenure at MIT last year.

The other is the extensive effort she has made to disseminate Armenian history to other students. Ekmekçioğlu is currently working on multiple projects at MIT to make Armenian historical materials widely available, and thus to create conditions in which today's students and future researchers and historians can readily study the subject.

"I almost feel it as a responsibility," Ekmekçioğlu says. "I see this as a public service."

To see why this matters to Ekmekçioğlu, consider the circumstances in which she first started studying Armenian history and Armenian feminism, as an undergraduate at Bogazici University in Istanbul. The basic problem Ekmekçioğlu encountered: There weren't established courses about Armenians, let alone Armenian women, at the university. Teaching Armenian history, to this day, remains a punishable crime in Turkey.

So Ekmekçioğlu and a few other students founded reading groups to study Armenian history and share information about written sources and materials that pertained to Armenian women. Together, a few of them entered a research paper competition, for all fields of history, and finished third.

That was enough to help Ekmekçioğlu and her friends gain more support from professors, who encouraged them to keep pursuing the subject. And they have: One of Ekmekçioğlu's undergraduate friends was Melissa Bilal, now a faculty member at the

précis spring 2019 . 29

American University of Armenia, in Yerevan, Armenia, with whom Ekmekçioğlu still collaborates on research and pedagogical projects.

As an undergraduate, Ekmekçioğlu also spent a year abroad at the University of Athens before graduating from Bogazici University in 2002. She then attended New York University as a graduate student, receiving her MA in 2004 and her PhD in 2010. After a year as a postdoc at the University of Michigan, Ekmekçioğlu joined the MIT faculty in 2011. Today she is the McMillan-Stewart Associate Professor of History at the Institute, and is affiliated with MIT's Women's and Gender Studies program and the Center for International Studies.

Ekmekçioğlu's work examines a psychological and social strain at the heart of the lives of many Armenian women. After a shocking, traumatic human catastrophe, they were simultaneously trying to push their society forward, by developing new norms and rights for women, while also trying to hold their fractured community together by maintaining the cultural traditions of the past.

"By definition, they had to change," Ekmekçioğlu says. "But that goal is in tension with maintaining Armenian tradition."

In her book, Ekmekçioğlu's work cleverly draws on written sources, such as an overlooked Armenian magazine called Hay Gin, to draw out the thoughts of the women she studies. More broadly, she has collaborated with Bilal to both publish and analyze an array of original-source documents about Armenian women, ranging in time from the 1860s to the 1960s.

When Ekmekçioğlu was still in graduate school, she and Bilal co-edited the first such volume on the subject, published in Istanbul in 2006 and translated as, "A Cry for Justice: Five Armenian Feminist Writers from the Ottoman Empire to the Turkish Republic." Today, she and Bilal are working on a more comprehensive volume for publication, to be published in English as well as the original languages, with the working project title, "Feminism in Armenian: An Interpretive Anthology and Digital Archive."

One component of this will be a volume combining original primary-source writings and scholarly essays, meant to make the ideas of Armenians a more easily accessible part of mainstream women's history, and intended for classroom use.

Moreover, as the title suggests, Ekmekçioğlu and Bilal are working on a digital component of the project, which is intended to be the most comprehensive set of source materials on the subject yet in existence. She credits MIT as one of the institutions that has made this kind of project possible; she also recently received a Mellon Faculty Grant of the Center for Art, Science, and Technology, for a related public exhibition

"There is a lot of curation involved in this," Ekmekçioğlu says. "I've had a lot of support at MIT."

While Ekmekçioğlu is a leading historian of the early Turkish Republic in general, most of her work has come with the clear purpose of calling attention to overlooked women who, in exceedingly difficult times, sought to keep their society alive.

"It's only fair to those women who worked so hard, to do that," Ekmekçioğlu says.

Ekmekçioğlu's work examines a psychological and social strain at the heart of the lives of many Armenian women. After a shocking, traumatic human catastrophe, they were simultaneously trying to push their society forward, by developing new norms and rights for women, while also trying to hold their fractured community together by maintaining the cultural traditions of the past.

# C1S |

# activities

#### Starr Forums

The Center hosted a series of public talks including: the "MIT-Harvard Conference on the Uyghur Human Rights" with Sean Roberts (George Washington University), Darren Byler (University of Washington), Rian Thum (Loyola University New Orleans), Jessica Batke (ChinaFile), Gene Bunin (Xinjiang Victims Database curator), and Joi Ito (MIT); "Night Watch: A discussion about nuclear warfare" with Alex Maggio (Madame Secretary producer) and Vipin Narang (MIT); "From Cold War to Hot Peace" with Ambassador Michael McFaul (Stanford University); "The Madhouse Effect" with Michael Mann (Penn State), and "Abolish ICE?" with Juliette Kayyem (Harvard) and Chappell Lawson (MIT). Most Starr Forums are available to view on the Center's YouTube channel.

#### SSP congressional meeting

On April 17-19, the Security Studies Program hosted its fifth biennial senior congressional and executive branch staff seminar, titled "Regions and Rivals: American Strategy In A Time Of Uncertainty." Bringing 25 staffers from across the legislative and executive branches to MIT's campus for an intensive 3-day seminar, MIT faculty and outside speakers presented on nuclear and geographical threats affecting US interests across the globe. The seminar is funded through a generous grant from the Frankel Foundation.

#### 2019 summer study grants

Eighteen doctoral students in international affairs at MIT were awarded grants for summer study. Each will receive up to \$3,500 either for fieldwork and/or archival research, or for home-based research and write-up. The awards were made to an outstanding cohort of MIT students from across the Institute.

#### Through MISTI, faculty collaborate around the world

MISTI Global Seed Funds program awards another \$2 million to researchers across the Institute. Over \$2 million was awarded to 106 winners from 24 departments across all five schools. That brings the total amount of funding awarded to \$17.7 million over the 11-year life of the program.

Visit our website and events calendar for a complete listing of spring 2019 activities. Many of our events are captured on video and available to view on YouTube.

#### **FEATURED**

# MISTI team receives SHASS Award

Mala Ghosh, Maria Segala, and Madeline Smith have been selected to receive the SHASS Infinite Mile Award for Inclusion.

As MISTI's team lead for diversity, equity and inclusion, Ghosh has worked closely with colleagues to promote inclusion across MISTI programs. The multifaceted plan she developed includes outreach to partners across campus, data assessment, creating new events and resources for students and staff info sessions, among other things.

Her successful proposals to the ICEO Committee on Race & Diversity enabled MISTI to launch IdentityX program student pre-departure sessions, a blog, and student leadership development.

Both Smith and Segala have been instrumental in building these activities as a part of the team Ghosh brought together. Smith has been coordinating outreach, organizing event logistics, and developing communication around the student programs. Segala has expanded critical data collection to better assess and track our progress, provides comprehensive analysis on student data around inclusion, and facilitates LGBTQ trainings.

#### SSP Wednesday Seminars

The Security Studies Program's lunchtime series included: Lien-Hang Nguyen, Columbia University, on "New Histories of the Tet Offensive: Fifty Years Later"; TV Paul, McGill University, on "Restraining Great Powers: Soft Balancing From Empires to the Global Era"; Jacob Shapiro, Princeton University, on "Small Wars, Big Data: The Information Revolution in Modern Conflict"; Emily Goldman on "Cyberspace Strategy and Great Power Competition"; Jim Walsh, MIT, on "Laser Enrichment and Nuclear Proliferation: Unexpected Results & the Lessons for Scholarship"; and Rosemary Kelanic, University of Notre Dame, on "Oil and Great Power Strategy".

#### Emile Bustani Middle East Seminar

The following lectures were hosted this spring by the Emile Bustani Middle East Seminar: "Worst Humanitarian Crisis of our Time: Displacement and Destruction in Syria and Yemen" with Denis J Sullivan (Northeastern University) and "No Country for Young Men (And Women): Education, Employment and Inequality in the Middle East and North Africa" with Djavad Salehi-Isfahani (Virginia Tech).

#### MIT-Lockheed Martin Seed Fund launches

Lockheed Martin and MIT International Science and Technology Initiatives (MISTI) have announced the creation of the MIT-Lockheed Martin Seed Fund to promote early-stage collaborations between MIT faculty and researchers with universities and public research institutions in Israel. The seed fund will also take place in Germany, and additional countries will be considered after the pilot year of 2019.

#### Focus on Russia

Each semester the MIT Security Studies Program, together with the MISTI MIT-Russia Program, and the MIT Center for International Studies, presents a speaker series "Focus on Russia." The talks feature current issues in Russian domestic and foreign policies. The spring semester's events included: "From Cold War to Hot Peace" (Ambassador Michael McFaul, Stanford University) & "Putinism" (Brian Taylor, Syracuse University).

# end

# notes PEOPLE

PhD Candidate Marsin Alshamary received a Predoctoral Research Fellowship at the Middle East Initiative at the Harvard Kennedy School for 2019-2020.

Professor of Political Science Fotini Christia (with Erik Demaine and Constantinos Daskalakis from MIT CSAIL) received a grant award from the Defense Advanced Research Projects Agency for a project on "Serial Interactions in Imperfect Information Games Applied to Complex Military Decision-Making."

CIS Research Fellow David Edelman was interviewed by NBC News, The Washington Post, Wired Magazine and Agence France Press to discuss various topics in cybersecurity.

PhD Candidate Rachel Esplin Odell received a Predoctoral Fellowship from the International Security Program at the Harvard Kennedy School's Belfer Center for Science and International Affairs for 2019-2020. She also received a travel grant from MIT-India, which she used to support dissertation field research in Delhi in March 2019 as an affiliate of Carnegie India, and a CIS Summer Study Travel Grant, which she will apply toward dissertation research in China in summer 2019. Odell presented "A Theory of Contestation Space in International Regimes" at the International Studies Association (ISA) Annual Conference in Toronto on March 27. A paper she co-authored with PhD Candidate Kacie Miura, "Second Image Squared: The Interactive Effects of Bureaucratic Politics in U.S.-China Relations, 2009-2016," was presented at ISA by Miura. Odell participated in a panel discussion on AI, China, Russia and the Global Order, organized by the Pentagon's Strategic Multilayer Assessment (SMA) Office on February 12.

Stanton Nuclear Security Fellow Se Young Jang presented "The Second US-ROK Nuclear Conflict: President Carter, Withdrawal of US Forces, and South Korea's Nuclear Hedging," at the American Historical Association Annual Conference in Chicago on January 3.

Associate Professor of Political Science and CIS Policy Lab Faculty Director **Chappell Lawson** and CIS Policy Lab Managing Director **Dan Pomeroy** launched an online course on EdX entitled "Tools for Academic Engagement in Public Policy" in April.

MISTI MIT-Germany Program Manager **Justin Leahey** participated in the American Institute for Contemporary German Studies' project "A German-American Dialogue of the Next Generation: Global Responsibility, Joint Engagement," which engages young Americans and Germans in discussions of global issues of concern for the transatlantic relationship.

PhD Candidate **Andrew Miller** presented research on citizen-police cooperation in Lagos, Nigeria at the Harvard Experimental Political Science Graduate Student Conference in April.

PhD Candidate **Aidan Milliff** presented "Facts Before Feelings: Theorizing Emotional Responses to Violent Trauma," at the annual meeting of the Midwest Political Science Association in Chicago in April. Milliff was also awarded a 2019 CIS Summer Study Grant to support research on the determinants of civilian behavior during the Partition of India as part of his dissertation.

PhD Candidate Kacie Miura received a Predoctoral Research Fellowship from the Belfer Center for Science and International Affairs at the Harvard Kennedy School of Government for 2019-2020. At the March 2019 International Studies Association Conference in Toronto, she presented "Economic Coercion in an Interdependent Era: China Responds to the THAAD Crisis." With Arthur and Ruth Sloan Professor of Political Science M Taylor Fravel, she presented "Stormy Seas: The South China Sea in US-China Relations" at a conference at the University of Pennsylvania's Center for the Study of Contemporary China on May 2. From May 13-17, she also participated in the China Institute of International Studies' China-US Young Leaders Dialogue in Beijing.

Associate Professor of Political Science **Vipin Narang** was interviewed by Bloomberg.com for a two part series on "Winning the Nuclear Game" against North Korea and Russia.

# end

# notes

PhD Candidate Cullen Nutt received a grant for summer 2019 from the Charles Koch Foundation. Nutt presented "Alignment Instability and Covert Action: The Case of Portugal" at the International Studies Association annual conference in Toronto. In January, Nutt attended a seminar in Los Angeles hosted by the Charles Koch Foundation on grand strategy in East Asia.

PhD Candidate Sara Plana received a Smith Richardson World Politics and Statecraft Fellowship for 2019-2020. Plana was also a graduate student organizer for the Bridging the Gap Project's New Era Workshop in Berkeley, CA, this February. Plana presented "If At First You Don't Succeed: Explaining the Puzzle of Unchanging Russian Counterinsurgency Doctrine," at the International Studies Association Annual Conference in Toronto in March.

Ford International Professor of Political Science and SSP Director Barry Posen received a Lifetime Achievement Award for Innovative Approaches to Grand Strategy from the University of Notre Dame in April. Posen also appeared on WBUR's On Point in April to discuss the future of NATO.

Ford International Professor of Political Science and CIS Director Richard Samuels presented "Japan's Strategic Choices" at the Barcelona Center for International Affairs, Open University of Catalonia, in January. In the same month, Samuels also presented "Japan's 2018 National Defense Program Guidelines" at the Stiftung Wissenschaft und Politik, in Berlin, Germany.

PhD Candidate Meicen Sun received a grant from the Horowitz Foundation for Social Policy to support her dissertation research in April.

PhD Candidates Rachel Tecott and Sara Plana introduced the second annual Future Strategy Forum conference at the Center for Strategic and International Studies (CSIS) in Washington, DC in April. The conference series, co-created by Plana and Tecott in 2018 and co-sponsored by CSIS and the Kissinger Center, addresses emerging national security challenges, connects national security academics and practitioners across the country, and amplifies the voices of women in the field.

Ford International Professor of Political Science **Kathleen Thelen** was appointed to the Board of Directors of the Israel Institute for Advanced Studies in Jerusalem. This year, Thelen also held the Donald Gordon Fellowship at the Stellensbosch Institute for Advanced Study in South Africa.

# **PUBLISHED**

PhD Candidate <b>Matthew Cancian</b> (with SSP alum Kristin Fabbe), "Informal Institutions and Survey Research in the Kurdistan Region of Iraq," <i>PS: Political Science and Politics</i> , (March 2019).
(with Mark Cancian), "It's Long Past Time to Stop Expanding NATO," War on the Rocks (March 1, 2019).
Professor of Political Science <b>Nazli Choucri</b> (with David Clark), International Relations in the Cyber Age: The Co-Evolution Dilemma. Cambridge: The MIT Press, 2019.
SSP Associate Director and CIS Principal Research Scientist <b>Owen Cote</b> , "Invisible Nuclear-Armed Submarines, or Transparent Oceans? Are Ballistic Missile Submarines Still the Best Deterrent for the United States?" <i>Bulletin of the Atomic Scientists</i> , Vol. 75, No. 1, pp. 30-335 (January 2019).
PhD Candidate <b>Rachel Esplin Odell</b> , "Chinese Regime Insecurity, Domestic Authoritarianism, and Foreign Policy," in Nicholas D. Wright, ed., <i>AI, China, Russia, and the Global Order: Technological, Political, Global, and Creative Perspectives</i> , A Strategic Multilayer Assessment Periodic Publication, 2018.
Arthur and Ruth Sloan Professor of Political Science <b>Taylor Fravel</b> , <i>Active Defense: China's Military Strategy since 1949</i> . Princeton, NJ: Princeton University Press, 2019.
"How the People's Liberation Army does Military Strategy," interview in <i>The Diplomat</i> (January 30, 2019).

# end notes

Stanton Nuclear Security Fellow <b>Se Young Jang</b> , "US-South Korea Military Negotiations Could Cost the Alliance," <i>East Asia Forum</i> (February 13, 2019).
"The Hanoi Summit—We Asked Se Young Jang what Happens Next in US-North Korea Relations," The National Interest (March 12, 2019).
PhD Candidate <b>Kacie Miura</b> , "The Implications of Increased Internal Control on China's International Behavior," in Nicholas D. Wright, ed., <i>AI, China, Russia, and the Global Order: Technological, Political, Global, and Creative Perspectives</i> , A Strategic Multilayer Assessment Periodic Publication, 2018.
Associate Professor of Political Science <b>Vipin Narang</b> , "North Korea and America's Second Summit: Here's what Vipin Narang Thinks Will Happen," <i>The National Interest</i> (February 6, 2019).
(with MIT Alum Christopher Clary), "India's Counterforce Temptations: Strategic Dilemmas, Doctrine, and Capabilities," <i>International Security</i> , Vol. 43, No. 3, pp. 7-52 (Winter 2018/19).
(with MIT Alum Nicholas Miller), "The Year of Living Dangerously with Nuclear Weapons: Three Crises Washington Could Face in 2019," Foreign Affairs (January 11, 2019).
SSP Security Studies Senior Advisor <b>Carol Saivetz</b> , "Russia Might Regret the US Drawdown in Syria" <i>Lawfare</i> (April 14, 2019).
Ford International Professor of Political Science <b>Ben Ross Schneider</b> (with Alejandra Mizala), "Promoting Quality Education in Chile: The Politics of Reforming Teacher Careers," <i>Journal of Education Policy</i> , Vol. 14, pp. 1-27 (March 2019).

	_ (with Pablo Cevallos Estarellas and Barbara Burns), "The Politics ming Education in Ecuador: Confrontation and Continuity, 2006-17," e Education Review, Vol. 63, No. 2, pp. 259-280 (May 2019).
	date <b>Meicen Sun</b> , "National Borders Don't Stop in the Physical World Cyberspace Too," <i>World Economic Forum</i> (January 16, 2019).
the Knowle	ational Professor of Political Science <b>Kathleen Thelen</b> , "Transitions to dge Economy in Germany, Sweden, and the Netherlands," <i>Comparativ</i> . 51, No. 2, pp. 295-315 (January 2019).
tive," Perspe	_ "The American Precariat: U.S. Capitalism in Comparative Perspec-

# **précis** n. a concise summary of essential points, statements, or facts.

**précis** is published twice each academic year in order to familiarize readers with the work of the Center for International Studies at MIT.

#### Center for International Studies

Massachusetts Institute of Technology One Amherst Street, E40-400 Cambridge, MA 02139

+1 617.253.8093 cis-info@mit.edu cis.mit.edu

Richard J Samuels, *Director*John Timan, *Executive Director*Michelle English, *précis Editor*Laurie Scheffler, *précis Coordinator*Aidan Milliff, *précis Student Editor* 

