

Transcript from
Dean's Symposium on Social Science Innovations:
"China in Focus: New Social Science Approaches"

March 03, 2023

Division of Social Science
Faculty of Arts & Sciences
Harvard University

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00:00:04.370 --> 00:00:14.050

Lawrence Bobo: Good afternoon, everyone. Welcome to the fourth of our Dean's symposia on social science innovations. Thank you for joining us.

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00:00:14.140 --> 00:00:25.640

Lawrence Bobo: As I think you know my name is Larry Bobo. I'm the Dean of Social Science. We've now held earlier sessions on big data opportunities, contributions, challenges, and limitations.

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00:00:25.680 --> 00:00:28.320

Lawrence Bobo: one on fighting truth decay.

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00:00:28.520 --> 00:00:36.000

Lawrence Bobo: And we also now hold an annual inequality symposia in connection with the Inequality in America Initiative.

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00:00:36.500 --> 00:01:04.950

Lawrence Bobo: today's symposia will focus on 'China in focus: new social science approaches,' which should be especially timely and interesting. These symposia, at least in my view, aim first and foremost to call us together division-wide across our customary disciplinary and departmental boundaries in sort of mutual colloquy and exchange over innovative research and thinking about problems and challenges

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00:01:04.950 --> 00:01:13.140

Lawrence Bobo: that are of broad interest and relevance. China, of course, is of increasing importance as a global economic force,

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00:01:13.220 --> 00:01:18.680

Lawrence Bobo: as a technological leader, and as a geopolitical actor on the world stage.

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00:01:19.130 --> 00:01:36.230

Lawrence Bobo: In the current moment we face controversies about wandering spy balloons, about increasing scrutiny and regulation over the relationships that exist between research, universities, and sciences here in the US on the one hand, and those in China on the other;

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00:01:36.340 --> 00:01:49.530

Lawrence Bobo: about the spread and use and potential risks of applications such as Tik Tok; about which nation will lead in the production of microchips in the future, and technological innovation more generally;

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00:01:49.720 --> 00:02:08.860

Lawrence Bobo: and of course, in terms of the seemingly endless nation-state competition for hegemony in the ebb and flow of larger world events. Whether we're talking about the future of Taiwan, the war in Ukraine, and development across the African continent:

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00:02:09.100 --> 00:02:13.640

Lawrence Bobo: simply put China increasingly commands our attention.

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00:02:14.040 --> 00:02:33.000

Lawrence Bobo: We are fortunate here at Harvard, perhaps especially so in the social sciences, to have a significant number of cutting edge scholars well poised to bring rigorous approaches, spanning multiple disciplines to deepening our understanding and appreciation for China's history and development and role in the modern world.

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00:02:33.550 --> 00:02:45.460

Lawrence Bobo: I'm especially excited by the four-person panel we have speaking to us today, and I hope that you are too. Let me begin by introducing my friend Mark Elliot,

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00:02:45.500 --> 00:03:03.420

Lawrence Bobo: who will moderate the session, and in turn introduce each of our panelists. Mark, as most of you know, is the Mark Schwartz Professor of Chinese and Inner Asian history in our departments of East Asian languages and Civilizations, and the Department of History.

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00:03:03.540 --> 00:03:22.130

Lawrence Bobo: He's the former director of the Fairbank Center for Chinese studies, and is currently our Vice Provost for International Affairs, as well as the author of numerous influential publications, including the book, the Manchu Way, the Eight Banners and Ethnic Identity in Late Imperial China.

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00:03:22.280 --> 00:03:26.260

Lawrence Bobo: Let me turn it over to Mark Elliot. Then please take it away.

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00:03:26.490 --> 00:03:27.760

Mark C. Elliott: Thank you, Larry.

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00:03:28.360 --> 00:03:38.460

Mark C. Elliott: Thanks very much for the opportunity today to to moderate the the the symposium. It's. It's really a delight to be here with

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00:03:38.780 --> 00:03:44.870

Mark C. Elliott: what I regard as the the all-star team we have assembled in in Chinese social science.

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00:03:45.120 --> 00:03:54.000

Mark C. Elliott: from the departments of sociology, government, history of science, and economics. It's, as you say, the the

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00:03:54.120 --> 00:04:09.180

Mark C. Elliott: the world's attention seems focused on China in a way that just is relentless, and I can tell you that was not always the case. There. There was a time when a story about China in the New York Times

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00:04:09.200 --> 00:04:17.829

Mark C. Elliott: was itself an event. I would cut them out assiduously. This was, of course, back a long time ago in the twentieth century.

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00:04:18.019 --> 00:04:24.940

Mark C. Elliott: But the 21st century story that we tell about China is really about the mainstreaming

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00:04:25.010 --> 00:04:37.210

Mark C. Elliott: of China in many, many ways into all of our lives and into, into the disciplines at the University, and we can see that in the work that is being done now

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00:04:37.220 --> 00:04:45.300

Mark C. Elliott: across all of the schools, but perhaps most notably here in the faculty of arts and sciences, and in in

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00:04:45.380 --> 00:04:53.120

Mark C. Elliott: in the divisions of social sciences, and I think also the division of arts and, arts and humanities. But the focus today is on new social science

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00:04:53.310 --> 00:05:01.380

Mark C. Elliott: approaches, and for that we have assembled four just terrific young scholars.

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00:05:01.410 --> 00:05:10.010

Mark C. Elliott: Victor Seow in the history of science, Yuhua Wang from the Government Department, Ya-Wen Lei from Sociology, and David Yang

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00:05:10.110 --> 00:05:26.830

Mark C. Elliott: in the economics department. Each of them will get about the 15 min or so for a presentation, and i'll be followed by a short Q&A. And then we'll have a longer, a chance at the end of all 4 presentations, to to come together for a

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00:05:26.880 --> 00:05:40.290

Mark C. Elliott: a more sustained conversation around some of the themes that will be raised. Prominent, I think, among those themes will be the role of the state which I think in the Chinese case plays an outside

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00:05:40.470 --> 00:05:54.970

Mark C. Elliott: role. You know we're paying attention to things coming before the Supreme Court and, and what is the reach of the, the the US state, and in in certain areas is is always front of mind. These kinds of questions are

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00:05:55.180 --> 00:05:58.220

Mark C. Elliott: are very, very differently framed in China.

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00:05:58.490 --> 00:06:18.060

Mark C. Elliott: and I think we'll get some some perspectives on, on on what that looks like from from our speakers. So let's start. Our first speaker is is Victor Seow. Professor Seow is assistant professor in the History of Science, specialist in modern China and Japan, I should say.

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00:06:18.060 --> 00:06:32.040

Mark C. Elliott: and a historian of energy and of of labor as well, that his new work is is focusing very much on that. He just published his first book, which grew out of the dissertation he wrote here,

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00:06:32.060 --> 00:06:35.510

Mark C. Elliott: I'm proud to say, as my Ph. D advisee.

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00:06:35.750 --> 00:06:47.820

Mark C. Elliott: So I hope I get forgiven for that that plug. His book, 'Carbon technocracy: energy regimes in modern East Asia' came out from Chicago last year,

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00:06:47.880 --> 00:06:56.280

Mark C. Elliott: and is a study of the deep links between energy extraction and technocratic politics, and we'll be hearing about technocracy from

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00:06:56.320 --> 00:07:05.470

Mark C. Elliott: other of our presenters today. He's working on another book now on the science of work and the nature of labor

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00:07:05.790 --> 00:07:14.690

Mark C. Elliott: which focuses on the use of industrial psychology in China in the early years, I think, in the early years of the People's Republic. Is that right, Victor?

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00:07:16.110 --> 00:07:20.200

Victor Seow: It's from the thirties to the present so it's including that period.

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00:07:21.290 --> 00:07:28.400

Mark C. Elliott: The title of his, or the informal title anyhow, of the presentation is The World in a (Chinese) Mine. So, Victor, please.

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00:07:28.590 --> 00:07:29.780

Mark C. Elliott: The floor is yours.

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00:07:30.190 --> 00:07:33.480

Victor Seow: Sounds great. And then

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00:07:34.590 --> 00:07:42.070

Victor Seow: famous last words: let me share my screen right. Oops. There you go.

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00:07:44.780 --> 00:07:52.190

Victor Seow: Excellent! Thank you for the introduction. Mark, my doctor father, as he has reminded us.

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00:07:52.220 --> 00:07:55.550

Thanks Larry also for just bringing us together.

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00:07:55.610 --> 00:08:11.840

Victor Seow: and to everyone who is joining us here this afternoon. I'm so delighted to be able to speak on this panel of distinguished colleagues, from whom I've learned a lot already over the course of the couple of years I've been back here at Harvard.

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00:08:11.840 --> 00:08:29.700

Victor Seow: So, as Mark mentioned, I'm a historian of science and technology, and this means that I study how scientific knowledge and technological artifacts intersect with society in

historical contexts. And my work has focused as Mark mentioned, on China. You know. That's why I'm here.

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00:08:29.700 --> 00:08:36.870

Victor Seow: but also Japan, and on 2 major topics, the first being energy and the second work.

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00:08:37.080 --> 00:08:55.430

Victor Seow: As Mark had also mentioned, I'm currently researching and writing this new book on the History of Industrial Psychology in China, from the 1930s to the present, through which I seek to examine how this fundamental human activity, that is, work, becomes and functions as an object of scientific inquiry.

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00:08:55.610 --> 00:09:14.460

Victor Seow: So that's my self-ongoing project that's on the work realm, and I bring it up mainly because there may be colleagues in psychology or some of industrial relations and organizational behavior folks. So just really anyone interested in the future of work in the room, and I would love to chat, so please be in touch.

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00:09:14.460 --> 00:09:21.930

But in my allotted of time today I'll be telling you a little bit about my first book, Carbon Technocracy, which was published last spring.

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00:09:21.940 --> 00:09:35.960

Victor Seow: I would get to that other main topical interests of energy. The broad underlying question here is, how might we understand the relationship between energy and power in the industrial age?

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00:09:36.280 --> 00:09:43.910

Victor Seow: Now, in this book I explore how modern states became embroiled in projects of intensive energy extraction,

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00:09:44.030 --> 00:09:52.280

Victor Seow: which, I contend, has implications for how we think about the origins and challenges of our ongoing climate crisis.

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00:09:52.290 --> 00:10:04.960

Victor Seow: And I do this through the history of what was once the largest coal mine in Asia, the Fushun colliery in Southern Manchuria...today's Northeast China as sort-of marked out on the, on the left.

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00:10:05.440 --> 00:10:13.840

Victor Seow: Now, just to situate us a little bit... in time and space. The Fushun coal mines in their modern iteration were open at the turn of the twentieth century,

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00:10:13.850 --> 00:10:24.340

and over the next 5 decades switch hands between various Chinese and Japanese regimes, serving each as the material and ideological linchpin of a coal-fired future.

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00:10:24.410 --> 00:10:34.520

Victor Seow: So one of the things that really drew me to the study of Fushun was the potential to sort of use its history to tell this kind of connected and yet comparative story across these political regimes.

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00:10:34.760 --> 00:10:51.130[

Victor Seow: Now I have on the right 2 images of Fushun from the late 1920s and early 1930s, when it was owned and operated by the Japanese Colonial Corporation. The ... [Railway Company of Mantie?] which has been compared to, and, in fact modeled itself upon, the British East India Company.

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00:10:51.440 --> 00:10:57.350

Victor Seow: The top image comes from a stunning pictorial map of the region that's held in our maps collection at Lamont.

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00:10:57.410 --> 00:11:06.630

And the bottom image, which is incidentally my favorite one I have of Fushun, and I do have quite a number, is of its iconic open pit mine.

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00:11:07.030 --> 00:11:13.830

Victor Seow: And I like it because for many reasons, one of which is it just captures this, this scale of its operations.

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00:11:13.910 --> 00:11:21.830

For, at the time the point in time when this photograph was taken, and this comes from a a photograph that's on a postcard,

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00:11:21.900 --> 00:11:35.060

Victor Seow: the cavity was so huge that the amount of stuff removed to excavate it was more than 3 times that of the material dredged in the creation of the Panama Canal. This gives you a sense of how large it was.

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00:11:35.210 --> 00:11:53.480

Victor Seow: Now by situating this massive enterprise within the broader Chinese and Japanese energy sectors, look[ing] at it in the context of the coal and oil industries, and following a wide class of characters, including bureaucrats and planners, geologists and engineers, and labor contractors and mine workers, the book traces

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00:11:53.480 --> 00:12:01.070

these links between the raw materiality of the coal face, and the corridors of power in Tokyo, Nancying, Beijing, and beyond.

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00:12:01.500 --> 00:12:17.370

Victor Seow: Now with that groundwork laid, then I'll spend the rest of my time briefly laying out 3 scholarly contributions I see myself making through this book. The first, of hearkening to that, back to that, point of the State. is this question of the state and this fossil fuel turn.

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00:12:17.510 --> 00:12:33.300

Victor Seow: Now, amid our ongoing climate crisis, the rise of the fossil fuel economy has attracted much scholarly attention among historians who generally believe that if we have any hope of finding solutions to problems we need to understand those, how those problems came to be.

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00:12:33.410 --> 00:12:47.370

Victor Seow: Now, existing research, and this is, it's really sort of surging right now, has, has tended to focus on these kind of large systemic factors, such as you know, the dynamics of capitalism or the ecological limits of economic growth, or

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00:12:47.370 --> 00:13:03.140

Victor Seow: on small factors that become quite significant in the aggregate--from you know, the machinations of industrialists to the choices of consumers--and something that struck me quite early on in the process of of undertaking this work was the general lack of attention to the role of the State.

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00:13:03.460 --> 00:13:12.060

Victor Seow: What happens then, when we, were we to sort of bring the State back into this question, this this of, to understand these dynamics.

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00:13:12.130 --> 00:13:26.580

Victor Seow: Now the image just I have for you of Mao visiting Fushun in 1958 during the disastrous national production campaign. That was the great leap forward. That's the one to the left, and then on the right a poster from the preceding first 5 Year Plan

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00:13:26.580 --> 00:13:35.440

Victor Seow: that reads coal is the grain of industry. Interestingly, a [certification?] of Lenin's maxim coal is the bread of industry.

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00:13:35.520 --> 00:13:45.110

Victor Seow: and both are visual representations of the Socialist State's commitment to the intensive extraction that made possible its pursuit of fossil fuel development.

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00:13:45.540 --> 00:13:59.870

Victor Seow: Now I detailed this in the last chapter of the book. But what I show in the account leading up to it is that the fixation on prodigious energy production was true of the Imperial Japanese and Chinese Nationalist regimes that came before.

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00:13:59.930 --> 00:14:14.560

Victor Seow: And this is important in large part, because I think, in terms of we want to think of that profligate energy use and environmental destruction, there's a tendency to view contemporary China as this sort-of outlier that grows out of this kind of

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00:14:14.560 --> 00:14:30.850

Victor Seow: the aberration that it that was the Socialist project after the twentieth century revolution. And instead, I want to suggest that this is part of the larger project of modernity that we see cutting across multiple national context as well.

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00:14:30.960 --> 00:14:48.460

Victor Seow: So central to my account here is what I call 'carbon technocracy,' the title of the book, and I use this term to describe a modern regime of energy extraction characterized by a status commitment to industrial development based on cheap and abundant sources of carbon energy

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00:14:48.460 --> 00:14:52.760

Victor Seow: and a desire to marshal science and technology to secure such access.

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00:14:52.860 --> 00:15:12.560

Victor Seow: It is both an ideal and a social technical system, with all its contradictions, that's brought into being through the pursuit of that ideal. Advocates would often champion national autarky, glorify labor-saving mechanization, and measure economic growth in terms of increases in energy use.

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00:15:12.800 --> 00:15:19.590

Victor Seow: Carbon Technocracy so defined is a striking common denominator across the 3 main political regimes that I cover in the book.

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00:15:20.000 --> 00:15:32.020

Victor Seow: Despite their many differences, from ideology to capacity, each, I argue, embraced its extractivism, and the result for all 3 was this staggering human and environmental costs.

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00:15:32.930 --> 00:15:40.630

Victor Seow: Now the next contribution I want to highlight is that of imperial industrialization and the economic legacies of empire,

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00:15:40.910 --> 00:15:54.450

Victor Seow: and the pair of images I have for you here are of the massive winding tower at Fushun's [?] shaft mine, once a contender for the world's tallest, and certainly most powerful in terms of its hoisting capacity, tower of that sort.

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00:15:54.560 --> 00:16:03.520

Victor Seow: The image on the left is from the 1930s, and if you squint a little bit you can sort of make out Mantie's[?] flag on the left, and then the Japanese flag on the right.

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00:16:03.730 --> 00:16:13.540

Victor Seow: And then the image on the right is from the 1950s. After the forty-, the revolution of '49, when those flags are replaced by the Communist star.

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00:16:13.870 --> 00:16:22.230

Victor Seow: Now something I do in the book is to highlight the Japanese continuities that contributed to China's post 1949 industrialization,

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00:16:22.790 --> 00:16:36.860

Victor Seow: and this was not only in terms of, you know, buildings and infrastructure left behind, but also Japanese engineers and technicians who remained after the war and revolution. By one count there were over 10,000 of them in Manchuria in 1946.

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00:16:36.860 --> 00:16:46.990

Victor Seow: In Fushun, as elsewhere in the region, they would assist in the rehabilitation of devastated industry, and impart knowledge and expertise to their Chinese counterparts.

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00:16:47.240 --> 00:17:03.200

Victor Seow: Now, that a portion of this kind of Japanese legacy in Manchuria was industrialization and economic development might seem like an inconvenient truth if you, like me, are opposed to the idea of imperialism, and I certainly hope that this is the case.

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00:17:03.300 --> 00:17:09.270

Victor Seow: But still this is by no means, I argue, a reason to cherish the memory of Japan's empire.

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00:17:09.430 --> 00:17:24.579

Victor Seow: Aside from the fact that Manchuria's economic infrastructure was established on the backs of countless Chinese workers, it also needs to be stressed that the Japanese architects of the region's industrial edifices almost certainly had not raised them for the benefit of their colonized subjects.

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00:17:25.079 --> 00:17:44.220

Victor Seow: Now, furthermore, this issue of Japanese contributions to the post-colonial Manchurian economy may be easier to accept if we recognize that large-scale coal-fired industrial expansion did not yield positive outcomes for all, or even many, sectors of the local population, to say nothing of the environment.

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00:17:44.220 --> 00:18:01.470

Victor Seow: We can then acknowledge Japan's colonial positive economic impact on Manchuria without celebrating it, and I would argue that we could sort-of, perhaps extend this to other kinds of post-colonial sites as well, and think about the in... in thinking about the economic legacies of empire.

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00:18:02.290 --> 00:18:17.650

Victor Seow: Now, the third and last main contribution I want to highlight today relates to technology and labor, something about which you will ... hear from colleagues on this panel. But you know Japanese technocrats have pursued open-pit mining in Fushun certainly to mine more coal,

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00:18:17.730 --> 00:18:23.890

Victor Seow: but they also did so to reduce their reliance on the scores of Chinese workers who labored there,

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00:18:24.270 --> 00:18:39.980

Victor Seow: whom they deemed unreliable at best. Now, to excavate this pit, which, and and this large scale expansion takes place in the 1920s, the Japanese mine manager at the time brought in geologists and engineers from the Mesabi iron range in Minnesota,

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00:18:39.980 --> 00:18:59.670

Victor Seow: and in his proposal for this excavation one of these American engineers would claim that his method would ensure, you know, this increased output that was, that the company

sought but, and while being, well, allowing this to be maintained, quote "maintained in the face of possible labor shortages and strikes."

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00:19:00.070 --> 00:19:15.160

Victor Seow: Now. Yet, for all its efforts at mobilizing the machine, the colliery was not able to truly diminish its dependence on labor. As its targeted production rose from year to year this industrial apparatus consistently required tens of thousands of workers to keep those cogs turning.

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00:19:15.250 --> 00:19:30.780

Victor Seow: Now, many of you here probably immediately notice this interesting involutory dynamic that happens around 1937, where you see some of the labor force grow quite significantly and the fall in production, and I'd be glad to sort-of

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00:19:30.780 --> 00:19:46.720

Victor Seow: say more in Q&A if folks are interested. But for now I wanted to stress that you know this swelling of the workforce also meant sub-, subjecting more and more miners to the dangers of an environment that was engineered for intensive extraction.

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00:19:47.220 --> 00:20:00.120

Victor Seow: Now Fushun's biggest coal mining disaster took place here in the circled area at Oyama mine in 1917. Now it's an explosion that destroyed--you know, it's it's a large explosion that destroys the ventilation fan room above.

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00:20:00.160 --> 00:20:06.110

And this was important because the the mechanism, because of this, this ventilation

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00:20:06.130 --> 00:20:16.510

Victor Seow: room being blown to smithereens and the mechanism for regulating airflow was no longer, and operators could not, you know, shut off the circulation of air, which was sucked

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00:20:16.510 --> 00:20:34.190

Victor Seow: in the mine to feed the fire, and I think it's striking because it's kind of a reminder that how these, such environments, extractive environments required, you know, the artifice of the machine and inputs of energy, not only to be productive, but also to even just self, be self-safe and workable to begin with.

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00:20:34.570 --> 00:20:51.010

Victor Seow: Decades later, one survivor would contend that, quote, "for the sake of coal, and without regard for the lives of the Chinese miners, the--and they use the derogatory term here-- the small Japanese devils force the people at the top of the pit to close up the mouths with mud, and because of that the workers below had no way to escape."

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00:20:51.580 --> 00:21:11.940

Victor Seow: In total 917 people perished that day: 17 Japanese, 900 Chinese. Now many of these disasters and accidents, as I documented in the book, were a result of mining too much or

too quickly, or without proper maintenance of equipment, observation of safety, particularly with escalating demands into and through the war.

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00:21:12.140 --> 00:21:23.180

Victor Seow: But this would persist into the Socialist period as well. Here is an internally-circulated document decrying the fact that Fushun safety record was the worst it had been since the 1949 revolution.

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00:21:23.220 --> 00:21:32.520

Victor Seow: Production had exceeded targets, but accidents were plenty, and as a result some workers started to complain that quote "the coal is paid for in human lives".

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00:21:33.010 --> 00:21:46.900

Victor Seow: Still this pattern continued thereafter with losses increasingly computed, not so much in terms of human cost, but co. lost work hours, terms such as lot, uh, lost work, hours, foregone production and capital expenditure.

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00:21:47.410 --> 00:22:05.410

Victor Seow: The Socialist State was highly critical of the Japanese and Nationalist regimes that have preceded it for their, for disregarding workers as they exploited Fushun's coal resources. Here the similarity was all too striking: in coal mining, as in other areas, it wound up perpetuating some of the very worst of former excesses.

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00:22:07.040 --> 00:22:21.460

Victor Seow: Fushun is now past its days of industrial glory. When I first visited in 2011 the state-owned enterprise that runs the mine, it was building the Museum to the left, which was completed later that year.

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00:22:21.640 --> 00:22:27.660

Now it was meant to comm, commemorate this industry that built the city and fueled the nation.

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00:22:27.670 --> 00:22:31.090

Victor Seow: But even then it seemed to me like a little bit of a tombstone,

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00:22:31.490 --> 00:22:42.420

Victor Seow: more common with sites such as what you see on the right, the sort-of derelict remains of the one celebrated long-fung winding tower.

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00:22:43.890 --> 00:22:56.050

Victor Seow: Now to some extent the approach I take in this book, then, is a little bit obvious, right? I mean admittedly so. I say, I tell you a history of energy, take you out to a mine, and and so flesh out the story there.

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00:22:56.210 --> 00:23:07.480

Victor Seow: But mines like Fushun, I think, warrant our attention, not only because they fuel the appetites and ambitions of states, but also because they reflect it [unclear] the system they sustain.

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00:23:07.860 --> 00:23:15.080

Victor Seow: And this is then itself, a reference to the the title I've chosen for these remarks, the world in a mine.

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00:23:15.170 --> 00:23:20.270

Fushun's history, highlights, hubristic attempts to tame and transform nature through technology

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00:23:20.340 --> 00:23:41.780

Victor Seow: the misplaced valorization of machines over human beings and productivist pursuits that strained both the environment from which coal was extracted and the many workers on whom that extractive process so deeply depended, and so to close off my, my, remarks here, I thought I'd read the concluding paragraph of the book's introduction, which ties all of these together.

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00:23:42.750 --> 00:23:53.680

Victor Seow: So from the top over here, "It may very well be, as Lewis Mumford has suggested, that the mine is the very worst possible base for permanent civilization.

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00:23:53.970 --> 00:24:03.240

Victor Seow: Now his rationale was that, quote, 'When the seams exhausted the individual mine must be closed down, leaving behind debris and deserted sheds and houses.'

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00:24:03.700 --> 00:24:18.220

Victor Seow: Although Fushun's coal deposits have not been entirely depleted, difficulties in continuing mining operations have brought the former coal capital to essentially the same point. 'The byproducts are befuddle and disorderly environment,' Mumford concluded.

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00:24:18.280 --> 00:24:31.260

Victor Seow: The end product is an exhausted one. As I traveled through Fushun that first summer, and in trips back after, my eyes would be repeatedly drawn to the mounds of dusty rubble strewn across this de-industrializing landscape,

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00:24:31.290 --> 00:24:35.160

Victor Seow: particularly around the individual mines that have closed down in succession.

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00:24:35.630 --> 00:24:41.700

Victor Seow: We who live in this world that carbon made, have yet to use up all the buried sunshine beneath our feet.

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00:24:42.100 --> 00:24:53.440

Victor Seow: But we see similar effects, a result not so much of coal's exhaustion as its unrelenting use. As we now begin to reckon with the harrowing devastation wrought by climate change.

129

00:24:53.500 --> 00:25:01.920

Victor Seow: Fushun's fate appears then to be nothing less than a chilling microcosm of this most pressing of our planetary problems.

130

00:25:02.980 --> 00:25:06.710

Victor Seow: Thank you. I look forward to you questions and comments.

131

00:25:08.390 --> 00:25:19.820

Mark C. Elliott: Victor. Thank you. Thank you very much. And indeed I was thinking the very, that very thought, the the the mine is a microcosm of what we are

132

00:25:20.030 --> 00:25:23.940

Mark C. Elliott: seeing, and in so many, so many places today.

133

00:25:24.010 --> 00:25:35.000

Mark C. Elliott: Can... I'm gonna, I don't see any any hands up, if you would, if you would like to ask a question. We have time for one or two questions right now. So please use your electronic hand because there are too many people for me

134

00:25:35.010 --> 00:25:39.280

Mark C. Elliott: to see across the the all the different zoom screens.

135

00:25:39.510 --> 00:25:42.800

Mark C. Elliott: But i'm going to go ahead and and

136

00:25:43.230 --> 00:25:54.670

Mark C. Elliott: step into the opening, Victor, that you have offered by asking: So what is going on with this involution or apparent involution of productivity

137

00:25:54.780 --> 00:25:58.420

Mark C. Elliott: in 1937 and succeeding years?

138

00:25:59.450 --> 00:26:13.850

Victor Seow: Yeah, Well, thanks for that that question, Mark. I mean, part of it is, you know, with the outbreak of war and the disruption of supply lines which all seems very familiar in in our times. Now, the, some

139

00:26:14.630 --> 00:26:27.660

Victor Seow: some machinery and inputs that were necessary from the maintenance of these of these equipment in in Manchuria. That was, you know the the the supply lines for these were disrupted, but

140

00:26:27.670 --> 00:26:41.320

Victor Seow: at this moment they were also, you know, Japanese forces that were self-occupied in the region, were also starting to, you know, forcibly conscript basically sort-of

141

00:26:41.710 --> 00:27:00.150

Victor Seow: slave labor and and and and these were, you know, euphemistically tied with, called special workers, with a and some of them were captured soldiers, but many of them were also just... Many of these workers were also so falsely taken from around the region.

142

00:27:00.250 --> 00:27:03.770

Victor Seow: and you know, with, with really

143

00:27:04.120 --> 00:27:20.650

Victor Seow: terrible conditions of work, but also lack of experience in in this, in this area, you know, you start to see it, a sort of a swelling of this, of this workforce. But, um, the...

144

00:27:21.650 --> 00:27:27.110

Mark C. Elliott: But why doesn't? Sorry to interrupt. Why doesn't the workforce decline in size? The workforce seems to kind of plateau in terms of total number.

145

00:27:27.530 --> 00:27:31.310

Victor Seow: and it's swelling at that time as well. Yeah.

146

00:27:31.430 --> 00:27:43.530

Mark C. Elliott: So the the supply chains are are interrupted. There's no way to be as productive. But there's no response in terms of shedding labor? Instead, labor is added? Is that to make up for the...?

147

00:27:43.630 --> 00:28:02.910

Victor Seow: Oh, yeah, I mean this is to, some more, more manual labor being sort of put into the place where some machines, and and I should also add that you know a lot of the main manufacturers for mine machinery, I mean the the operations were requisitioned for military production also. So that was part of this story, and it

148

00:28:02.910 --> 00:28:08.940

Victor Seow: it's intensified further after the, after Pearl Harbor and the

149

00:28:08.990 --> 00:28:26.440

Victor Seow: you know, really the the the you know submarine attacks on the Japanese fleet around the region which make this, this, this, this whole process, a lot more, even more difficult than than before.

150

00:28:26.870 --> 00:28:30.860

Mark C. Elliott: I see that no less a personage than the dean himself has a question for you.

151

00:28:31.150 --> 00:28:41.280

I do. I do, and thank you very much, Victor, for such a rich and interesting talk, and you may already have have spoken to this, but i'd I'd love to get you to expand a bit

152

00:28:41.500 --> 00:28:43.350

Lawrence Bobo: on

153

00:28:44.650 --> 00:29:02.470

Lawrence Bobo: the Chinese Communist Party's orientation to labor, and the kind of lack of change in the real exploitative and dangerous conditions in the mine. And if kind of, of, party ideology and values ever really do produce

154

00:29:03.090 --> 00:29:28.670

Lawrence Bobo: a difference in in how workers are treated and regarded? Or is it just that there's now a big project toward industrialization and modernization? And all of those considerations go by the wayside? To simplify it a bit.

155

00:29:28.670 --> 00:29:45.460

Victor Seow: Yeah, no, thank you for that. Definitely sort of the rhetorical commitment was there, and the modes of mobilizing workers to pursue these projects, such as you know, production, competitions, and the like, were of, you know, different from, uh, the systems that preceded it. But I think one reason why I wanted to sort-of pull out the common denominator is the the sort of privileging of a particular form

156

00:29:45.560 --> 00:30:00.710

Victor Seow: of of you know heavy industry-driven development in the 1950s. And you know how, I mean in my more kind of ... had sort-of engendered similar outcomes. And you know my more in my more kind of

157

00:30:00.940 --> 00:30:19.740

Victor Seow: uncharitable moments I I say, like you know, why can't the the, why couldn't the Communist leaders of the fifties have imagined something different? I mean, in in some sense they they they, they, you know, and it but that you know I I recognize that there would be still political concerns that that necessitated,

158

00:30:21.160 --> 00:30:44.490

Victor Seow: that that sort-of made this this kind of focus on industry, somewhat somewhat important. But I, you know, my my critique here is is of oh, how I I sort-of critique that this, the the regime of the 1950s has been in part informed by what I, by, you know, you know American leftists of the late 1940s were saying the same thing

159

00:30:44.490 --> 00:30:55.850

Victor Seow: of the Stalinist Soviet Union and seeing this as a form of state capitalism. I'm thinking of people like CLR James but also Grace Lee Boggs, and the Johnson-Forrest

160

00:30:56.190 --> 00:31:19.890

Victor Seow: tendency -- was that what they call it...? So I had sort-of... yeah, even though it's not branded as Trotskyism he had been you know, critiquing Stalinism for exactly the same thing in this kind of embrace of State capitalism that had similarly undermined the the interest of workers. And and so I I see myself, my critique here at... aligning in part with with that

161

00:31:20.040 --> 00:31:26.390

Victor Seow: of tradition, and that that that mode of yeah, of of critique.

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00:31:26.440 --> 00:31:27.350

Victor Seow: Thank you.

163

00:31:28.420 --> 00:31:29.150

Victor Seow: Thank you.

164

00:31:29.580 --> 00:31:42.330

Mark C. Elliott: Thank you. So we're going to pause questions here for Victor. We can come back, you know, at the end. And move on to our second speaker, Professor Yuhua Wang, of the Government Department.

165

00:31:44.350 --> 00:31:54.680

Mark C. Elliott: Yuhua is the author of a couple of books. He's been very productive. His first book came out 2015, 'Tying the autocrats

166

00:31:54.720 --> 00:32:06.490

Mark C. Elliott: hands: the rise of the rule of law in China', and then his second book also out last year from Princeton, the Rise and Fall of Imperial China.

167

00:32:06.550 --> 00:32:09.220

Mark C. Elliott: a book I I I read with great interest.

168

00:32:09.250 --> 00:32:17.390

Mark C. Elliott: Since I work on Imperial China. The social origins of State development is the subtitle there. Examining the

169

00:32:17.500 --> 00:32:25.850

Mark C. Elliott: the durability of state structures in the face of ostensible political

170

00:32:25.980 --> 00:32:51.130

Mark C. Elliott: transformations that should result, we would think, maybe in very different kinds of outcomes. But there's continuities here. There are continuities here as well as as it turns out. So i'm looking for very much to to Professor Wang's comments here the curse of long reigning autocrats, and having written about one such long reigning autocrats. I

171

00:32:51.220 --> 00:33:00.550

Mark C. Elliott: I i'm thinking I should have included a whole chapter titled the curse of long-reigning autocrats, and maybe when I get to a revised version I can do that. Yuhua, floor is yours.

172

00:33:01.580 --> 00:33:09.060

Yuhua Wang: Thank you so much, Mark, and also thanks, Larry for getting us together. Good to see everyone on the screen.

173

00:33:12.820 --> 00:33:17.530

Yuhua Wang: So yeah, so the curse of long reigning autocrats. Actually, this is

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00:33:17.830 --> 00:33:35.840

Yuhua Wang: really inspired by reading Mark's book *The Manchu Way*. You know all the Qing emperors lived so long. And then I just wondered what does it mean, right, for China? And then, more recently, for anybody who has paid some attention to China, we have been worrying about

175

00:33:35.840 --> 00:33:55.780

Yuhua Wang: the emergence, maybe, of a new monarch in China, right, and then, since 2012, and last year we know for sure we are getting maybe a very long reigning autocrat in China, because Xi Jinping has successfully gotten a third term. This is almost unprecedented since

176

00:33:56.040 --> 00:34:15.250

Yuhua Wang: the post Mao era, and then actually Xi Jinping has become the longest ruling head of a state since 1949. This is even longer than Mao Zedong. Mao was only the head of the state for 10 years Xi Jinping has been on the position for 11 years, so the question I guess everybody is thinking about

177

00:34:15.270 --> 00:34:20.060

Yuhua Wang: is, what does this mean? Right? What does having a long ruling leader

178

00:34:20.420 --> 00:34:23.810

Yuhua Wang: mean for China and the world?

179

00:34:23.880 --> 00:34:27.260

Yuhua Wang: Larry mentions that China is in

180

00:34:27.699 --> 00:34:39.570

Yuhua Wang: a lot of discussions right now in the popular media, but also in the classrooms here at Harvard. I'm teaching a course on China. My students always ask me, you know, what does this mean? Right? What... Xi Jinping

181

00:34:39.639 --> 00:34:55.520

Yuhua Wang: will be around for the next 10 or 15 years, and what does it mean for us, what this mean for the world? And then that's the question. I try to shed some light on it, and then i'm a huge believer in the notion that history is the best

182

00:34:55.600 --> 00:35:22.780

Yuhua Wang: predictor of the future; that if we want to know something about the future, we need to look back in history to know what has happened in that country. And then this is the motivation for my most recent book, the Rise and Fall of Imperial China, where I try to look at patterns of politics in the last 2,000 years in China, and then trying to get some insight to help me understand what will happen in China in the next 10 to 15 years.

183

00:35:23.140 --> 00:35:40.800

Yuhua Wang: The first thing I did in this book is to look at all the rulers in Chinese history in the 2,000 years of Imperial China, from the First Dynasty, the Qin Dynasty to the last dynasty, the Qing dynasty there were almost 400 emperors in China.

184

00:35:40.800 --> 00:35:59.890

Yuhua Wang: and then their biographies are well documented by historians at the time. So, therefore, I collected the biographic information of almost all the Emperors in Chinese history from the first one, that's Qin Shi Huang, to the last Emperor of the Qing dynasty, and then I paid specific attention to how they died.

185

00:35:59.890 --> 00:36:18.850

Yuhua Wang: and then some of them died peacefully in office. That's great. But then we..., actually half of them actually died unnaturally. A fair number of them died, for example, in wars--in external wars or civil war--but actually a large number of them--one fourth of all Chinese emperors in the last 2,000 years--

186

00:36:18.850 --> 00:36:29.630

Yuhua Wang: were assassinated by the elites in the palace. So that is, they were killed by the people around them. Caesar-style basically, you know, stepped in the back. And then I

187

00:36:32.130 --> 00:36:47.280

Yuhua Wang: made this graph, which shows you the probability of being assassinated by the elites over time. And then you can see basically Imperial China can be divided into 2 periods, the first period from year one, year 0 to the late

188

00:36:47.620 --> 00:37:01.010

Yuhua Wang: tenth century, to the Tang dynasty. The Chinese emperors became increasingly insecure, that is, the probability of being a a deposed by the elites, dramatically increased up until the late Tang dynasty

189

00:37:01.110 --> 00:37:18.850

Yuhua Wang: where almost half of the emperors were deposed by the elites, and then that probability peaked in the year of 900, and then dramatically declined, very quickly declines. Starting in the Song dynasty in the eleventh century, and then up until the Qing dynasty. This is

190

00:37:18.850 --> 00:37:34.710

Yuhua Wang: Mark's favorite dynasty, where all the emperors were very very safe. You know the, you think about the [unclear] emperors they they were, they sat on the throne for more than 60 years, right? And then so, in the late Qing dynasty almost none of the emperors were deposed by the elites.

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00:37:34.900 --> 00:37:42.760

Yuhua Wang: So this is the trend about the fate of the Chinese rulers. The other thing I did in the book is to try to see,

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00:37:43.290 --> 00:37:53.860

Yuhua Wang: what does this mean for the Chinese state, right? You know, does this mean that when the rulers sit, are sitting on the throne for a large, for a long time does this also mean that they were controlling a stronger state?

193

00:37:54.740 --> 00:38:13.890

Yuhua Wang: That was not the case based on the data I collected on the both the fiscal policies and also the tax amount the different dynasties were collecting. The trend is very clear, that is, in the first half of Imperial China, you know, from year 0 to year 1,000 the Chinese state was very strong in terms of

194

00:38:13.890 --> 00:38:28.040

Yuhua Wang: fiscal policies. That's the the graph you are seeing here. Most of the policies based on the coding were designed to increase taxation, but then the peak happens in the year 1,000. In the second half of Imperial China, with one exception in the early Qing dynasty,

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00:38:28.100 --> 00:38:45.010

Yuhua Wang: with one this one exception, most of the policies were designed to either maintain the status quo or decrease taxation. This is also the same when we look at the actual tax amount the different dynasties were collecting. You can see this upward trends in the first half of Imperial china; it peaked

196

00:38:45.010 --> 00:39:00.990

Yuhua Wang: in the early Song Dynasty, and it started to decline in the second half of, of Imperial China. Especially, you can see in the late period of Imperial China, in the Ming and Qing dynasties, the governments were not able to collect much taxation from the society. So if you

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00:39:01.260 --> 00:39:09.130

Yuhua Wang: combine these 2 graphs together, I think that's the puzzle that's motivating me for the book. That is why do we see in the second half of

198

00:39:09.680 --> 00:39:14.690

Yuhua Wang: of Imperial China you have those long living monarchies, right,

199

00:39:15.240 --> 00:39:26.940

Yuhua Wang: emperors who sat on the throne for decades. But then they were controlling a very weak government. Right? Why do we see this contradiction between the strengths of the ruler and then the strengths of the government?

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00:39:27.600 --> 00:39:31.280

Yuhua Wang: The argument I put forward in the book is that

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00:39:31.310 --> 00:39:45.560

Yuhua Wang: the Chinese rulers historically, but also contemporarily they face a trade-off that I call the sovereign's dilemma, and the sovereign's dilemma means that a coherent elite that could take collective actions to strengthen the state

202

00:39:45.560 --> 00:39:56.670

Yuhua Wang: was also capable of overthrowing the ruler, and then what I mean here is for every ruler in the world, they have 2 goals, right? The first goal is to stay in power as long as possible. Right? Less..

203

00:39:56.870 --> 00:40:15.630

Yuhua Wang: Like Xi Jinping, right, you know, who tries to stay in power as as much as possible, who can monopolize power from the elites. The second goal is to have a strong government, right, to have a strong state to do all the things they want to do. For example, you know, like Larry said, we're worrying about Taiwan. We're worrying about the technology

204

00:40:15.630 --> 00:40:30.510

Yuhua Wang: technological competition between us and China, and then you need to have a strong government, to have a strong state, to do those things. So those are the 2 goals every ruler

wants. But then my argument is, you cannot do both, because if you want to stay in power as long as possible

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00:40:30.580 --> 00:40:33.450

Yuhua Wang: you have to have a incoherent

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00:40:33.660 --> 00:40:38.620

Yuhua Wang: elite. You need to fragment the elites. If the elites are too coherent, if they

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00:40:38.620 --> 00:40:57.320

Yuhua Wang: trust each other, they can take collective actions, then the ruler is in danger. Right? So if you want to stay in power, you need to fragment the elites but once you fragment the elites, they will not be able to take kind of action to strengthen the state. So, therefore, because of the the type of elite structure that is required to achieve both goals in China,

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00:40:57.510 --> 00:41:08.550

Yuhua Wang: historically, the rulers have not been able to achieve both calls. That's why we see, for example, long-running autocrats were governing a weak state in the second half of imperial China. I would just show you

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00:41:08.620 --> 00:41:19.930

Yuhua Wang: some fun facts the data sources that I use in this book are drawn from a variety of materials, one of which is actually tombstones.

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00:41:20.210 --> 00:41:24.210

Yuhua Wang: About 15 years ago, when I was a graduate student at the University of Michigan,

211

00:41:24.320 --> 00:41:42.960

Yuhua Wang: with Ya-Wen Lei, actually, you know, Ya-Wen was there as well, I paid a trip to the city of Xi'an . This is one of the oldest capitals of China, and in the in downtown Xi'an there's a museum that has amazing collection of tombstones. So I went to that museum, and then I was, I was walking in the museum and I paused

212

00:41:42.970 --> 00:41:47.840

Yuhua Wang: in front of one tombstone. This is the tombstone of the Prime Minister. You can

213

00:41:48.040 --> 00:41:48.920

Yuhua Wang: think of

214

00:41:48.960 --> 00:41:50.920

Yuhua Wang: e the equivalent

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00:41:51.110 --> 00:42:07.780

Yuhua Wang: position in the Northern Song dynasty, whose name was Fu Bi, and then in the tombstone on the front cover you have the owner, the position, and then the name of the person, and then on the back of the tombstone it has a lengthy eulogy carved on the piece of limestone which survived

216

00:42:08.230 --> 00:42:11.020

Yuhua Wang: over a 1,000 years, right? And then on that,

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00:42:11.140 --> 00:42:22.440

Yuhua Wang: the back of the tombstone, it has this paragraph, which introduced all the key members of Fu Bi's family, including his wife, and then his wife's father and his

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00:42:22.440 --> 00:42:33.730

Yuhua Wang: 3 sons, their positions, and also their daughters, their four daughters, and then, and then also the sons in law. So the names of the sons-in-law, and also the positions of the sons-in-law, and then also their grandchildren.

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00:42:34.030 --> 00:42:39.010

Yuhua Wang: So with this very short paragraph I was able to collect the names of

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00:42:39.220 --> 00:42:44.700

Yuhua Wang: this politician who lives a 1,000 years ago--his kinship network, right--and then, and then using the same

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00:42:44.700 --> 00:43:03.400

Yuhua Wang: methodology, but also to exploit other databases--for example, I saw Peter, Peter Bol is here. Peter's great database, the CBDB database, the China biographical database I was able to construct the kinship network of major politicians in every dynasty

222

00:43:03.860 --> 00:43:06.480

Yuhua Wang: in the last thousands of years.

223

00:43:06.540 --> 00:43:09.770

Yuhua Wang: And then what I found is

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00:43:10.320 --> 00:43:11.230

Yuhua Wang: this

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00:43:12.110 --> 00:43:26.200

Yuhua Wang: network among the Chinese elites in different dynasties, and then one of the major findings in the book is in the period of of the Tang dynasty. This is a period where the, the emperors were assassinated right all the time by by the elites.

226

00:43:26.540 --> 00:43:28.170

Yuhua Wang: And then my data tried

227

00:43:28.470 --> 00:43:41.510

Yuhua Wang: to make sense of this. That is why do we see this happening in the late Tang dynasty? Well, actually, what happened is, in the Tang period there was a group, a class of aristocratic families, about 200 families. They

228

00:43:41.590 --> 00:43:43.010

Yuhua Wang: married each other

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00:43:43.160 --> 00:43:54.890

Yuhua Wang: exclusively, and also they live in the capital areas in the Tang dynasty. And then what my data shows is this marriage network among the major politicians in the capital.

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00:43:54.890 --> 00:44:12.610

Yuhua Wang: And then you can see everybody was married with everyone else. Right? I don't know what happened to these 2 guys. They don't hang out with other people. But everybody was embedded in this close-knit network, where everybody was married with everybody else, that is, their sons and daughters were married. They have these intermarriage ties. And, and then, if I put this

231

00:44:12.710 --> 00:44:18.680

Yuhua Wang: network graph on the map, you can see the larger nodes are the bureaucrats or the

232

00:44:18.770 --> 00:44:31.750

Yuhua Wang: the central politicians right? They all live in the capital areas which was Xi'an and [Luoyang?] at the time. But then through their marriage network they were able to connect families that were located in every corner of the Empire. That is, they build this

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00:44:31.910 --> 00:44:40.060

Yuhua Wang: what I call a [Star type?] network. That is, they have this closely network in the center, but also connect with the periphery right? And then that's how we

234

00:44:40.330 --> 00:44:42.600

Yuhua Wang: explain why we see

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00:44:42.850 --> 00:44:55.250

Yuhua Wang: depositions in the late Tang dynasty. That is, the the coherence of the Tang elites made them more likely to take collectiveo action, to trust each other, to coordinate when they try to kill the king, right. That's what happened in the Tang dynasty.

236

00:44:56.060 --> 00:44:59.790

Yuhua Wang: However, in the next century, in the Song Dynasty,

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00:44:59.820 --> 00:45:19.660

Yuhua Wang: with the Civil Service examination systems, what happens is that dramatically fragmented the Chinese elites. And then this is what is shown in my data in the Song dynasty. This is in the in the eleventh century, you can see, still using the central politicians, you know, who work in the capital. You see, their marriage network is much

238

00:45:19.660 --> 00:45:31.370

Yuhua Wang: less coherent than the Tang network. That is, you see, a lot of the holes. There were still some intermarriages, but less so compared with the Tang elites, because you could see some holes in this network. And then you, when you put the map on

239

00:45:31.390 --> 00:45:49.550

Yuhua Wang: the network on the map, you also see is, even more scattered. And then this mattered, because in the center it means that when the officials were trying to talk to each other to do something, they cannot reach a consensus right, because they don't have these 'mutual hostages' as we call it, in terms of intermarriages, right?

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00:45:49.550 --> 00:45:58.050

Yuhua Wang: We exchange sons and daughters, right. They don't trust each other anymore, and then they take, cannot take collective actions to do things. And then this means 2 things, right. One is

241

00:45:58.700 --> 00:46:07.850

Yuhua Wang: the emperors were able to take advantage of this to consolidate their own power because of the holes within the networks, the conflicts within the elites.

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00:46:07.850 --> 00:46:23.120

Yuhua Wang: The Chinese emperors were able to divide and conquer, to play one faction against another, and then to use that, to consolidate their own power. On the other hand, the Chinese State, it declines because they, the central elites, were not able to come to consensus to make

243

00:46:23.490 --> 00:46:38.620

Yuhua Wang: policy consensus right, and then to reach big decision about how to, for example, change their fiscal policies to increase taxation. So, therefore, gradually the Chinese State declines. So this, you know, help me answer the 2 questions. You know that the one question that I ask

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00:46:38.640 --> 00:46:50.260

Yuhua Wang: at the beginning of the talk. That is, why do we see this? Why do we see a strong ruler with a weak state? It's because the elites became incoherent, and then the rulers became stronger, the state became weaker and weaker.

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00:46:51.020 --> 00:47:05.130

Yuhua Wang: What does this mean for China today, right? So we know that China now has a new ruler, who is also trying to consolidate his power. He has consolidated his power, right? So the anti-corruption campaign. But one of the most important strategies he used

246

00:47:05.130 --> 00:47:24.290

Yuhua Wang: is actually to fragment the elites, right, when I think... My interpretation of the anti-corruption campaign, in addition to getting rid of corruption, is also to break up the networks among the Chinese elites, right. By investigations, by arresting a lot of people, by scaring them off, right, Xi Jinping has very successfully

247

00:47:24.340 --> 00:47:37.650

Yuhua Wang: broken the networks within the Chinese elites, and then, as a result, we are very likely... we have seen some of it right? So we have seen a dramatic turn of of policies after Zero COVID, you know, earlier

248

00:47:37.820 --> 00:47:50.660

Yuhua Wang: last year. That is, we have no [pass up?], and then suddenly the government changes policies and then ends Zero COVID. We also seen the balloons, you know. This is something I talk about in my class to the undergrads. That is,

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00:47:50.690 --> 00:48:08.280

Yuhua Wang: the Chinese balloons really show the incoherence of the organizations within the Chinese bureaucracy. It is very clear that the people who are sending the balloons, maybe in the military, were not talking to the Foreign Ministry or welcoming Lincoln at the same time. Right? So I think, you know, we see some of the consequences as well as a result

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00:48:08.320 --> 00:48:18.820

Yuhua Wang: of Xi Jinping's strategy to fragment the elites. But what happens is probably a very dramatic, but also, maybe gradual, decline of the capacity of the Chinese state.

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00:48:18.840 --> 00:48:21.480

Yuhua Wang: I'll stop here and look forward to the discussion.

252

00:48:27.290 --> 00:48:41.430

Mark C. Elliott: Thank you very much, Yuhua. I have, I've got all kinds of questions. I'm looking to see if any electronic hands are are popping up. And while I do, let me just ask.

253

00:48:41.630 --> 00:48:44.930

Mark C. Elliott: and you'll forgive me. But i'm I

254

00:48:45.290 --> 00:48:57.980

Mark C. Elliott: You know I routinely lecture about how strong the Qing state is, so to have you tell me that, in fact, it's a weak state is... makes me think maybe I've just gotten this wrong all the all these years.

255

00:48:58.450 --> 00:49:05.400

Mark C. Elliott: but it also makes me wonder. Maybe there are other ways of measuring the the strength of the state, or the robustness of the state,

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00:49:05.500 --> 00:49:24.010

Mark C. Elliott: than simple fiscal power, and I'm sure you've thought about this so I wonder what what other measures, you might have considered to determine what makes us a a strong state, and and why you ultimately settled on taxation and and fiscal strength as

257

00:49:24.010 --> 00:49:26.030

Mark C. Elliott: as the measure that you were going to go with.

258

00:49:26.800 --> 00:49:37.330

Yuhua Wang: Thanks, Mark I I that's a great question, I I think, when we look at the strengths, whether it's strong or weak, is all relative right? It's it's all compared to what. And then

259

00:49:37.330 --> 00:50:01.020

Yuhua Wang: Well, Qing was very strong compared with other countries, even in East Asia, for example, in Europe, at the time, for example, when when Kangxi was was on on the throne, you know, Qing was probably the strongest country in the world at the time, but but historically, both in terms of fiscal power, but also some other measures I use in the book, for example, the ability to mobilize population for conscription. And also, you know,

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00:50:01.130 --> 00:50:12.870

Yuhua Wang: as Weber said, you know the monopoly over violence. That is why does the State can monopolize the control of physical force. And we all know what happened, for example, in the nineteenth century that basically the private

261

00:50:12.950 --> 00:50:17.250

Yuhua Wang: militias emerged which really undermined the the state's

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00:50:17.430 --> 00:50:33.110

Yuhua Wang: monopoly over violence. So I think, comparatively also historically, for example, with the Song dynasty out of the Tang Dynasty, which was, I think, the peak of China's state strength. In terms of taxation, for example, I I show in the book that

263

00:50:33.110 --> 00:50:47.800

Yuhua Wang: taxation as a share of GDP reached almost 18% in the early Song dynasty. This is during the [unclear] reform, but in the Qing dynasty one percent, right? So you know, historically, there has been the lowest point in Chinese history, so I think...

264

00:50:47.860 --> 00:51:05.080

Yuhua Wang: And then, most importantly, the control over violence. You know the Qing, after [unclear] the Qing state was not even able to control the means of violence, and then they have to delegate this to the local gentry. So I think that's a really important indicator of losing state's [status?].

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00:51:06.520 --> 00:51:17.800

Mark C. Elliott: Yeah, no. I think we we will have a separate conversation next time when we have lunch, about the reasons why the Qing actually consciously adopted a policy of low taxation. That was,

266

00:51:18.850 --> 00:51:33.190

Mark C. Elliott: you know, that that was a deliberate strategy that that that Qianlong adopted when when he, when he took power. But no, it's it's fascinating to see the the this, this, this dilemm play out the way that you you show here.

267

00:51:33.190 --> 00:51:42.780

Mark C. Elliott: I see Peter Bol has his hand up, so maybe we can do one more question before we move on to the next presenter.

268

00:51:43.120 --> 00:51:50.920

Peter Bol: Yuhua thank you very much. You just pointed out that by the end of the eleventh century the per capita taxation is is very, very high. And this is under the [unclear] regime.

269

00:51:52.730 --> 00:51:53.540

Peter Bol: you

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00:51:53.870 --> 00:51:59.790

Peter Bol: in in, you know. One of your themes of this talk today is has been the ways in which

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00:51:59.970 --> 00:52:13.120

Peter Bol: the the throne wants to remain in power at the expense of the bureaucracy and and leading a bureaucratic families. But how do you account for the turn away

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00:52:13.410 --> 00:52:22.000

Peter Bol: from State expansion in the eleventh century? Why wasn't that in the Imperial interest to maintain State expansion at that point?

273

00:52:23.280 --> 00:52:36.860

Yuhua Wang: Great question, Peter. Well, my explanation is, the elites became localized. Right? That is starting from the Song dynasty, you know, we all know this localist turn of the Chinese elites. That is there. I I show in the book. Using my

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00:52:36.950 --> 00:53:05.510

Yuhua Wang: network data at this time they tend to marry their local neighbors rather than people from far away, and then that dramatically changed their interest in the central state; that is, they are no longer interested in the expanding the central state. They want to keep the autonomy of their own locality, their own family. So, therefore, you know one of the reasons why the [unclear] reform, which was designed to expand State power, failed is actually because of those, the majority of the politicians at the time had the local interest, they have, they're not interested in making the central State

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00:53:05.630 --> 00:53:06.500

Yuhua Wang: stronger.

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00:53:08.130 --> 00:53:09.620

Peter Bol: We can talk about that, too.

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00:53:09.770 --> 00:53:11.750

Peter Bol: Yeah. Yeah. So thank you.

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00:53:12.330 --> 00:53:14.270

Mark C. Elliott: Thanks so much Yuhua. Just

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00:53:14.680 --> 00:53:23.180

Mark C. Elliott: really interesting stuff. We're going to move on to our third presenter, Professor Ya-Wen Lei, who is an associate professor

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00:53:23.230 --> 00:53:39.220

Mark C. Elliott: in the sociology department with a research interest in political sociology, law and society, sociology and media. She's got all kinds of interests, science and technology development studies. She is all over the

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00:53:39.450 --> 00:53:42.890

Mark C. Elliott: the map here, but it all is coordinated

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00:53:42.990 --> 00:53:58.290

Mark C. Elliott: by a very ambitious and very impressive intellectual project that she's been pursuing, and number of books, her book *The Contentious Public sphere*, which attracted a tremendous amount of attention when it came out in 2018

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00:53:58.350 --> 00:54:10.660

Mark C. Elliott: and a forthcoming book this year, which I predict will also gain tremendous attention. *The Gilded Cage: technology, development, and State capitalism in China*. There.

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00:54:10.750 --> 00:54:15.470

Mark C. Elliott: I mean, is there anybody who's not interested in this question? I don't think so.

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00:54:15.500 --> 00:54:18.730

Mark C. Elliott: So, Ya-Wen, please, take it away.

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00:54:19.520 --> 00:54:25.820

Ya-Wen Lei: Thank you so much, Mark, for the very generous introduction. Let me share on my screen.

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00:54:31.260 --> 00:54:35.060

Ya-Wen Lei: Okay, okay, this works right.

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00:54:35.150 --> 00:55:03.940

Ya-Wen Lei: So so I also want to thank Larry for organizing this this wonderful event, and it's my honor to be able to present with my dear, our fellow China scholar. One of the best things I've enjoyed at Harvard is to have a great China study community. And today i'm going to discuss a research agenda that I call the techno-developmental regime. And this research agenda is based on my study

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00:55:03.940 --> 00:55:16.080

Ya-Wen Lei: of China's transition from labor-intensive export-oriented manufacturing to a more or less science and technology-driven developmental model.

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00:55:16.210 --> 00:55:18.550

Ya-Wen Lei: Let me begin with the story

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00:55:18.560 --> 00:55:34.300

Ya-Wen Lei: In 1998 President Bill Clinton made a forward-looking visit to China just 2 years before he convinced the US Congress to approve China's accession to the World Trade Organization,

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00:55:34.300 --> 00:55:47.520

Ya-Wen Lei: and the trip drew a lot of criticism at home because it broke a nine-year hiatus in which American presidents avoided visiting China after the 1989 un-Democratic movement.

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00:55:47.520 --> 00:56:04.800

Ya-Wen Lei: and in his trip President Clinton held a round table discussion at the Shanghai Library on the topic of shaping China for the for 21st century, and at one point President Clinton share his vision of China's future.

294

00:56:04.800 --> 00:56:10.910

Ya-Wen Lei: So you say that, "I believe this will happen because of the technological revolution.

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00:56:10.910 --> 00:56:31.340

Ya-Wen Lei: I think, in your economic growth you will almost leap over the whole generation of economic experiences that older European countries, and perhaps the United States experienced, where you will essentially be creating an industrialized and a post-industrial society at the same time.

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00:56:31.480 --> 00:56:45.960

Ya-Wen Lei: and upon hearing the news that Clinton had mentioned the post-industrial society in China, Sociologist Daniel Bell, an emeritus professor in my department at that at that time was very surprised,

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00:56:45.960 --> 00:56:51.800

Ya-Wen Lei: and he reached out to the National Security Council to inquire about who had written Clinton's talk.

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00:56:51.900 --> 00:57:01.030

And when he found that the President's comments were impromptu, Bell was pleased to see how influential his ideas had become.

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00:57:01.080 --> 00:57:15.290

Ya-Wen Lei: Since the 1980s Bell had developed the concept of post-industrial society; and although many scholars are, defined a post-industrial society with reference to services, the rise of services,

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00:57:15.350 --> 00:57:33.160

Ya-Wen Lei: Daniel Bell clarified that the novel features of post-industrial society were the mutually generative relationship between science, technology, and the economy, and most importantly, the enhancement of instrumental power based on technology over people,

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00:57:33.160 --> 00:57:53.140

Ya-Wen Lei: and according to Bell, what he called the design of post industrial society, is again, between persons which intellectual technology, based on information, data, computing algorithm and programming rise alongside of machine technology. So he wrote everything about this in the sixties and seventies.

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00:57:53.380 --> 00:57:54.720

Ya-Wen Lei: and

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00:57:55.020 --> 00:58:08.420

Ya-Wen Lei: to a large extent the future projected by both President Clinton and Daniel Biell has been realized in China, and China has emerged as one of the 2 global digital superpowers.

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00:58:08.420 --> 00:58:22.790

Ya-Wen Lei: And the process of China's technology development is also a process of post-industrial developmental transformation, and due to China's success some scholars have said that China has been experiencing a a gilded age.

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00:58:22.840 --> 00:58:52.550

Ya-Wen Lei: and but there is a dark side behind the gilded facade, and to see through the facade one has to understand the transformation of China's birdcage economy. So, many government officials in China have used the term bird and cage to refer to the economy and the state control. So they said that China should let a bird fly, but only within a state-managed cage, because otherwise the bird would fly away.

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00:58:52.550 --> 00:59:07.440

Ya-Wen Lei: And in the past the Chinese Government didn't distinguish different kind of birds, and however, in the mid 2000s, in the process of pursuing techno development, the government began to distinguish old birds from new birds.

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00:59:07.460 --> 00:59:30.720

Ya-Wen Lei: And the government... It became clear that now they don't, they didn't welcome old birds which referred to obsolete capital and labor, and instead they wanted to develop cutting edge new birds, and the Internet sector was selected as a pillar industry and one of the most important new birds after the 2008 financial crisis.

308

00:59:30.880 --> 00:59:50.770

Ya-Wen Lei: and after conducting field work in China since 2010, I observed two issues. So the first issue concerns the fate of, of the old birds, and previous experiences of the industrialization in the US and Europe suggest that people in a business may be left behind by such

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00:59:51.260 --> 01:00:10.680

Ya-Wen Lei: rapid transformation. And this raises the question about how the Chinese Government has managed capital workers in all sectors, and particularly given the country's official Socialist ideology, and already very high level of social inequality. And the second question concerns the cage,

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01:00:10.680 --> 01:00:27.720

Ya-Wen Lei: a control mechanism that seems to be growing comp... in complexity with the emergence of intellectual technologies and big data. And how has the Chinese Government constructed this cage to guide the country's technical development? And what are its impacts?

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01:00:27.740 --> 01:00:38.750

Ya-Wen Lei: So essentially my research aims to uncover the social order and contradictions that have emerged in the process of China's techno-development.

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01:00:38.750 --> 01:00:52.370

Ya-Wen Lei: It tells the story of birdcages and their consequences for those whose lives have been transformed by China's rapid rise to an economic and technological world leader.

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01:00:52.370 --> 01:01:12.670

Ya-Wen Lei: And to make sense of China's technology development, I developed the concept of techno-developmental regime to refer to the ensemble of State and non-state actors, institutions, ideas on cultural reform, norms, and forms of materiality and practice that prioritize on the role

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01:01:12.670 --> 01:01:28.130

Ya-Wen Lei: of science and technology and socioeconomic development, and components of this ensemble can be linked and configured in a very, a variety of ways across time and a place comprising different types of of technology development regimes.

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01:01:28.130 --> 01:01:40.940

Ya-Wen Lei: So my research examines and explains the configuration of these elements in the Chinese context. But I hope the framework can be applied to other contexts as well, and

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01:01:40.940 --> 01:01:54.530

Ya-Wen Lei: because this is a interdisciplinary talk, so I just want to make the talk as more, as broad as possible, to have some relevance to other colleagues who study different things across disciplinary boundaries.

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01:01:54.530 --> 01:02:14.510

Ya-Wen Lei: So my framework integrates several intellectual traditions. So the first tool on literature on development that explore, examine lay industrializations which highlights the important role of the so called developmental states in promoting development, especially in new sectors in East Asian countries.

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01:02:14.510 --> 01:02:39.660

Ya-Wen Lei: And however, this literature doesn't really address the experiences of all parts, or the significance of digital technology as a form of materiality in our time, and there is still much to learn about what a developmental state looks like in the digital age, and also in recent years, some scholars have pointed to a concept of time compressed development.

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01:02:39.660 --> 01:02:45.740

So they argue that a later develop, developer, tend[s] to grow much faster like [than] earlier ones.

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01:02:45.820 --> 01:03:04.510

Ya-Wen Lei: and may experience, industrialization and de-industrialization simultaneously. So you really [unclear], use China as an example, extreme example of time-compressed development, and President Clinton's prediction actually aligned with this concept.

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01:03:04.510 --> 01:03:18.280

and however, countries that undergo such time-compressed development can encounter very difficult problems of adjustment. And the second traditions of leadership that I engage with

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01:03:18.320 --> 01:03:32.610

Ya-Wen Lei: focus on post-industrial society, including its latest forms, such as surveillance capitalism, and platform capitalism. So this literature emphasizes the, the instrument, instrumental power based on technology, particularly information technology and big data. So, Daniel Bell developed his work before the rise of new liberalism, and he anticipated that the benevolent welfare state

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01:03:32.610 --> 01:03:44.790

Ya-Wen Lei: Mit

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01:03:44.790 --> 01:04:09.940

Ya-Wen Lei: would would would use advanced instruments for economic planning and techno development. So planning was the, the, some very, a lot of people were very enthusiastic about economic planning at that time in the US, and also in Europe as well. And, however, the literature, on platform, on capitalism, on the surveillance capitalism highlights the dominance of tech corporations

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01:04:09.940 --> 01:04:26.010

Ya-Wen Lei: and their instrumental power can undermine individual autonomy, privacy, and deteriorate work conditions and employment conditions. And the literature also notes that instrumental power based on technology, often complements that based on law and regulation.

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01:04:26.010 --> 01:04:40.370

Ya-Wen Lei: And it also stresses, that excess, that exercise of instrumental power can have different impacts on various social groups. However, a problem with this literature is that it often draws on our experiences in the US.

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01:04:40.370 --> 01:04:47.430

And neglect the issue related to development and the State. They assume that in the US there is no problem about development.

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01:04:47.580 --> 01:05:05.090

Ya-Wen Lei: And the third body of literature I draw on emphasizes that ideas and the belief about technology, about instruments, such as techno-nationalism, high modernism and technological fetishism, can shape the enactment and use of technology.

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01:05:05.090 --> 01:05:10.100

And finally, I also refer to a literature that examines authoritarianism,

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01:05:10.190 --> 01:05:21.810

Ya-Wen Lei: and and I here I just want to present the kind of simple findings of my work. So throughout my research, through my research I have demonstrated that

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01:05:21.810 --> 01:05:37.570

Ya-Wen Lei: the technology, the technodevelopmental regime in China is characterized by the widespread use of technical and legal instruments, established by both the Chinese State and large tech companies to regulate both work and life,

332

01:05:37.570 --> 01:06:05.530

Ya-Wen Lei: and to enhance legibility, evaluation, efficiency, and behavior modification. And specifically the Chinese developmental state aims to measure the value and worthiness of everything, from capital to labor, technology and industry, based on their perceived contributions to techno-development in order to scientifically allocate, allocate resources, rewards, and punishments.

333

01:06:05.680 --> 01:06:21.010

Ya-Wen Lei: And also with a symmetrically, a symbiotic relationship with the Chinese State, tech companies in China have gained immense infrastructure and instrumental power, and they can exercise that power over individuals.

334

01:06:21.040 --> 01:06:35.640

Ya-Wen Lei: So, um, the regime is also characterized by the cultural, economic, and legal subordination of workers and forms of capital that are considered "low end" in comparison with those that are valorized as "high end".

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01:06:35.640 --> 01:06:47.790

Ya-Wen Lei: The working class is often subject to the most stringent instrumental rule imposed by both the Chinese government and tech companies in both the spheres of work and life.

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01:06:47.790 --> 01:07:13.690

Ya-Wen Lei: So a lot of people talk about like China is a big, digital, like surveillance state. But that kind of argument neglects the fact that this kind of instrumental regime has a class dimension that's systematically biased against the working class. And additionally, the the regime is characterized by the intensified subjection of both low-end and high-end workers and capital to precarious and despotic rule

01:07:13.690 --> 01:07:24.060

Ya-Wen Lei: by instruments. And despite its remarkable success China's technodevelopmental regime has produced various contradictions.

338

01:07:24.060 --> 01:07:48.860

Ya-Wen Lei: So the first contradiction arises from the tension between the government's effort to maximize calculability, legibility, and efficiency, and the this connection between those efforts and the, their, reach out, their actual outcomes in reality. And the second contradiction is this: between the State and capital in terms of unpredictability of the government's instrumental rule,

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01:07:48.860 --> 01:08:06.980

Ya-Wen Lei: and third condition emerge from on the government's commitment to socialism, egalitarian value and the real condition and opportunity available to different groups of citizens. And for the furthermore, on my research also show tensions have arisen between tech capital and also labor.

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01:08:06.980 --> 01:08:14.070

So I argue that the characteristic of, and contradictions generated by, China's Techno-developmental regime

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01:08:14.070 --> 01:08:33.819

Ya-Wen Lei: can be explained by China's hyper instrumentally rational developmental stage, its authoritarian regime, and a mixed ideology of techno nationalism, technological fetishism, and meritocracy that tend to justify social exclusion and inequality.

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01:08:34.279 --> 01:08:46.010

Ya-Wen Lei: So Although my work is about China's technodevelopmental regime, my analysis is inherently, inherently comparative, because I was approached by so many people to

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01:08:46.010 --> 01:08:58.010

Ya-Wen Lei: do things in a comparative way, and it's meaningful here to compare China's regime with its American counterparts, because the US and China are the only two global digital superpowers.

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01:08:58.010 --> 01:09:14.700

Ya-Wen Lei: So, in in comparison with China, the US had a hidden or disguised developmental state and the dominant ideology that mixes counterculture with a faith in the emancipatory power of technology, social liberalism and economi liberalism.

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01:09:14.700 --> 01:09:22.600

Ya-Wen Lei: And the American state's involvement in technology development was mostly limited to research and development at an early stage.

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01:09:22.600 --> 01:09:37.990

Ya-Wen Lei: and the US political system is characterized by a strong separations of power, and the confluence of both factors and conditions contributed to what Professor [Zubo?] calls a politics of lawlessness.

347

01:09:38.090 --> 01:09:58.980

Ya-Wen Lei: Like the Chinese regime the American counterpart has also engendered some contradiction exemplified by emergent battle between regulatory agencies, tech companies, workers, and civil society organization. But, unlike the Chinese case, all these contradictions are not handled by a centralized and unchecked political power.

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01:09:59.100 --> 01:10:06.920

Ya-Wen Lei: I think the concept of techno-developmental regime also allow us to compare our technical development across time.

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01:10:06.930 --> 01:10:26.220

Ya-Wen Lei: I began my presentation with President Clinton's trip to China in order to demonstrate that China's technology development unfolded under new liberal globalization. And we've escalating our geopolitical tensions, and the importance of technology development has only heightened.

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01:10:26.220 --> 01:10:42.190

Ya-Wen Lei: And the Chinese State will prioritize technology development and nurture new 'birds' that align with these national security goals. And, on the other hand, American developmental state is no longer hidden or disguised, and it's crucial to observe the evolution

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01:10:42.190 --> 01:10:56.370

Ya-Wen Lei: of technodevelopmental regimes in both China and the US amid shifting global conditions. And due to time constraint, I wasn't able to provide a more empirical analyses about the Chinese case.

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01:10:56.370 --> 01:11:15.080

Ya-Wen Lei: If you are interested in learning more I invite you to read my forthcoming book, which will be published by Princeton University in November, and thank you and I have robots and platforms, and a lot of interesting things on going on in the book. And hopefully you will have a chance to read it. Thank you.

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01:11:17.950 --> 01:11:28.370

Mark C. Elliott: Thanks. Thanks so much, Ya-Wen. The the problem with, I mean, we love Zoom. But one of the problems with Zoom is there's no way to really have a to clap here, and and everybody we've heard so far.

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01:11:28.490 --> 01:11:35.280

Mark C. Elliott: You should get that nice round of applause at the end of of of of of the presentation. This one also has been

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01:11:35.300 --> 01:11:40.110

Mark C. Elliott: extremely rich. I'm: I'm. Not

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01:11:40.250 --> 01:11:51.200

Mark C. Elliott: I'm again. I'm gonna start the questions. And oh, I see we have. We have the virtual hand clapping. Yeah, but I guess I can do that too. But so thank you for that. Everyone.

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01:11:51.400 --> 01:12:03.630

Mark C. Elliott: My question for you had to do with the word contradictions which caught my attention on on the slide between appearance and reality, State and capital, State and citizens, capital and labor.

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01:12:03.770 --> 01:12:15.310

Mark C. Elliott: But we know from Chairman Mao, that contradictions, there are different kinds of contradictions, and some contradictions can be productive, and other kinds of contradictions can be problematic. All the contradictions you point to look

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01:12:15.970 --> 01:12:27.330

Mark C. Elliott: pretty problematic to me. I wonder, for instance, whether the disappearance of Bao Fan in the last couple of weeks is it, or other disappearances that we have seen, is

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01:12:27.470 --> 01:12:37.330

Mark C. Elliott: is a a a symptom, or an indication of exactly this kind of contradiction between state and capital, if that's even the right way to

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01:12:37.430 --> 01:12:49.730

Mark C. Elliott: to look at it, and whether to take your your question about the bird in the cage. If
If, if, if if birds like this continually get their wings clipped, and and

362

01:12:50.600 --> 01:12:55.130

Mark C. Elliott: then will there. You know doesn't that present a problem for that

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01:12:55.360 --> 01:13:01.720

Mark C. Elliott: for for that, for the cage. Ultimately, you know, the the developmental state will

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01:13:01.950 --> 01:13:04.110

Mark C. Elliott: run into hard limits

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01:13:04.450 --> 01:13:08.820

Mark C. Elliott: that will interfere with the kinds of goals that it has set for itself.

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01:13:10.110 --> 01:13:18.620

Ya-Wen Lei: Yeah, thank you so much, Mark, for the excellent question. So I think I'm a [unclear]. So I tend to think of

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01:13:18.620 --> 01:13:41.260

Ya-Wen Lei: contradiction in a [unclear] way. So when I talk about contradiction, I think about, for example, like the like, the contradiction between more subjective and also objective things. So so the, for example, the contradiction between the appearance and reality is that the Chinese say, they have a very like a really

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01:13:41.260 --> 01:14:06.910

Ya-Wen Lei: they are very. They really love technology. So they chose to do things in a very "objective" "scientific" way. But that's that's really an ideology. But on the on the other hand, that things many things don't really work out in reality. And then a lot of, for example, like industrial policies and a lot of ways they use to implement, to achieve the goal of technodevelopmental regime

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01:14:06.910 --> 01:14:21.800

Ya-Wen Lei: are, actually, the real outcome diverge from what they want. So I study like like like rob robotization. And so that's one kind of contradiction and the contradiction... And there is another dimension of contradiction that's some kind of like, um,

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01:14:21.800 --> 01:14:49.960

Ya-Wen Lei: So there are like a forms like formal contradict..., a difference between formality and also substantive values. So and I think the contradiction between capital and the like capital, and also the government belong to that kind of category. And I think the fundamental problem is

that the Government wanted to create so many, like, metrics, rules, and to regulate and to guide the the

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01:14:49.960 --> 01:15:19.950

Ya-Wen Lei: this kind of tech capital. So. But then in reality, I think, the the characteristic of the Chinese regulatory regime is that they either don't regulate, like, they are, they have, are very, even though they have the instrument, they have the law, but they, as you know very well, they selectively enforce the law when they want to cultivate that sector, so it's a very, uh, tolerant, uh, regulatory approach. So in that situation they kind of neglect all the,

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01:15:19.950 --> 01:15:33.990

Ya-Wen Lei: the problems, and then that creates to expansion of what they call the expansion of capital. But, on the other hand, when they feel that they are threatened, they change the law, change the instrument crazily. One [Mark Elliott: like the COVID policy, right? A great example.]

373

01:15:33.990 --> 01:16:02.520

Ya-Wen Lei: Right. So, that's so. I think there is something that in which, like really inherent, like deep condition, that kind of can explain why the Chinese in China, there are sometimes, they always tend to have some kind of very extreme outcomes: So either very tolerant, and there's a huge expansion, or like, restriction suddenly when their problems accumulate, when they sense the problem

374

01:16:02.520 --> 01:16:18.800

Ya-Wen Lei: then there is a corrective approach, and in my conversation with all the "capitalists" or the "entrepreneurs" they really, and what they tell me is that they don't really want the Government to give them so many instruction about what kind of technology to pursue,

375

01:16:18.800 --> 01:16:28.860

Ya-Wen Lei: and many of them told me they don't want to have subsidies. They don't think that's really... That can solve some problem, but that's not really what they want, but what they want is

376

01:16:29.150 --> 01:16:36.760

right, the rule of law. And also there are a lot of price. They could become the targets of corruption, anti-corruption campaign, right?

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01:16:36.760 --> 01:16:50.440

Ya-Wen Lei: But then, what they want is really the rule of law. And so that's that's what I get from my interviewees.

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01:16:50.440 --> 01:16:57.970

Mark C. Elliott: That'll be the subject of the next dean's symposium I predict, and in fact, your your colleague in the Sociology Department has has a question, so we'll do that, and then we'll move on to our final speaker, David Yang.

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01:16:58.520 --> 01:17:07.030

Mark C. Elliott: Larry, please.

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01:17:07.030 --> 01:17:26.220

Lawrence Bobo: Yeah, thanks. I will. I will try to to make this this quick, and maybe my my unconscious biases were operating here because as a Michigan, Ph. D myself, like Yuhua and Ya-Wen, though we did not overlap, and I'm, you know, my my gray hair is hidden here by keeping it cut short. I long long preceded both of you there. I, I find myself excited by some potential connections there,

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01:17:26.220 --> 01:17:37.670

Lawrence Bobo: and I don't know quite how to formulate the question, but I think it's connected to what I anticipate David will talk about in in just a moment, but Ya-Wen's last matrix made me think

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01:17:38.320 --> 01:17:51.160

Lawrence Bobo: is, are the US and China going to iterate toward being more similar systems? Or are there going to remain kind of profound cultural, historical, institutional differences?

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01:17:51.770 --> 01:17:55.910

Lawrence Bobo: And/or is one system better than the other,

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01:17:55.930 --> 01:18:14.350

Lawrence Bobo: for either the trajectory of technological innovation and dispersion, or for just long term viability. I mean, it's an unfair bundle of questions to toss at you, but I hope you see where i'm trying to go.

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01:18:14.350 --> 01:18:19.560

Ya-Wen Lei: Yeah, yeah, thank you so much Larry, and i'm i'm glad that we have 3 Michigan wolverines here. Go blue.

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01:18:19.600 --> 01:18:33.810

Ya-Wen Lei: Sorry we are [unclear] [laughter] I think there, I think Larry really has a a a really excellent observation for me.

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01:18:33.810 --> 01:18:43.630

Ya-Wen Lei: To some extent, in some aspects the US and China are getting similar, right? So the US has. I mean China has these industrial policies, and

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01:18:43.740 --> 01:19:02.070

Ya-Wen Lei: but then, in the past industrial policy was [taught, too?] in the US. But now we see under Biden's administration a lot of things are getting similar, and I think there is some kind of mutual. There is some kind of

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01:19:02.070 --> 01:19:15.620

Ya-Wen Lei: interaction between the Chinese institutions, and and also the American institutions. For example, when the Chinese, the government actually crack down or increase the intensity of their regulation

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01:19:15.620 --> 01:19:42.970

Ya-Wen Lei: on the tech companies, and actually in the US Congress, they are somehow influenced by the Chinese behavior. They actually also strengthen the regulation in some way. So I do see there is some kind of convergence, at least in some aspects, in terms of the institutions. But there are also very, things are also very different in the two political regimes, and I think the one problems in China is that

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01:19:42.970 --> 01:19:50.360

Ya-Wen Lei: there is no the the there is no input from the public opinion, and

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01:19:50.370 --> 01:19:57.620

Ya-Wen Lei: and also nowadays even it's a lot of experts complained to me that they sold... They think the policy

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01:19:57.620 --> 01:20:14.340

Ya-Wen Lei: is not correct, but they have no way to correct the policy, and I hope in the US, hopefully, there is something, something. When something goes really wrong there is some way to correct the problems under democratic regime. That's my hope.

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01:20:17.490 --> 01:20:24.380

Mark C. Elliott: Like I said. very rich topic for for conversation, and and I'd love to

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01:20:25.300 --> 01:20:30.310

Mark C. Elliott: hear some more thinking about the the convergence divergence

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01:20:30.340 --> 01:20:35.070

Mark C. Elliott: hypothesis. That's so interesting, a little scary also.

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01:20:35.710 --> 01:20:45.160

Mark C. Elliott: Our our final speaker this afternoon is Professor David Yang in the Department of Economics.

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01:20:45.910 --> 01:20:56.670

Mark C. Elliott: David's research is also quite quite broad in in in in its reach, uh, political economy, behavioral economics, economic history, cultural economics.

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01:20:57.890 --> 01:21:07.120

Mark C. Elliott: He uses a whole bunch of different kinds of methods, including data collection field work, not the

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01:21:07.290 --> 01:21:13.220

Mark C. Elliott: it's, certainly not what I think of when I, when I read David's stuff is like oh, economists can do that, too. That's pretty cool.

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01:21:13.520 --> 01:21:19.920

Mark C. Elliott: and he's been a he came, David, you got here what? Maybe 4 years ago?

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01:21:20.270 --> 01:21:26.030

David Yang: Yeah.

403

01:21:26.390 --> 01:21:37.040

Mark C. Elliott: So a new relatively new addition to the, to the China studies program here, and just a tremendous addition I'll, I'll say, number of articles come out that have appeared in the the American Economic Journal,

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01:21:37.110 --> 01:21:42.540

Mark C. Elliott: Quarterly Journal of Economics. But even the Journal of the American Medical association just to

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01:21:42.590 --> 01:21:52.150

Mark C. Elliott: put a point on that that breadth. And we're going to hear today about the "AI"tocracy, not autocracy, Yuhua, but the AI'tocracy.

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01:21:52.490 --> 01:21:54.430

Mark C. Elliott: and its international

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01:21:54.440 --> 01:21:57.270

Mark C. Elliott: ramifications. David, please.

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01:21:58.910 --> 01:22:13.630

David Yang: Great. Thank you so much for for having me in this, in this panel, it's a great pleasure, and I should say the probably the the intellectual highlight of this is the is the coinage of the term AI'tocracy. And hopefully you, you'll find out why, what what this term means

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01:22:13.670 --> 01:22:31.260

David Yang: by end of the the talk. So we're gonna I'm gonna talk about the political symbiosis in China between the artificial intelligence sector and the political stability of the regime, and how and what that means for the rest of the world to the extent that the AI technology can be something that's to be exported by to other countries.

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01:22:31.640 --> 01:22:36.430

David Yang: Okay, so I I want to start with a pretty long running, and I will say,

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01:22:36.600 --> 01:22:55.570

David Yang: non-controversial political economy consensus among the scholars of the last half a century, which is autocratic regimes are fundamentally misaligned with frontier technological change. There are numerous books that that's makes such argument, and more generally, the argument goes in both directions, which is

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01:22:55.570 --> 01:23:03.830

David Yang: the inclusive democratic, open institution fosters the ability for the regime to generate more innovation, to generate more growth.

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01:23:03.830 --> 01:23:16.580

David Yang: and when in the regime, and when the, when the country grows, when the country innovates, a a and a and in subsequent growth, the citizens in those regions can demand for more democratic and inclusive institutions. And these two things can go hand in hand together.

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01:23:16.810 --> 01:23:17.570

David Yang: Okay.

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01:23:17.730 --> 01:23:30.060

David Yang: Now, artificial intelligence, which economists and then, I will say, many social scientists, has been increasingly interested in to study in the last couple of years, has the potential to challenge this

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01:23:30.400 --> 01:23:46.750

David Yang: pretty comfortable political economy equilibrium that we're we're, being familiar with. Economists call the artificial intelligence as the potential to have, being to, to become the fourth industrial revolution, because it it could potentially change in many ways in which the work, the work and the economy is organized.

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01:23:46.860 --> 01:23:56.870

David Yang: So take artificial intelligence as an example, sorry, take the face recognition artificial intelligence as an example, which is going to be the focus of of of of the research I'm going to present today.

418

01:23:56.870 --> 01:24:15.060

David Yang: The US Government runs one of the most comprehensive rankings every year about which company is producing the best artificial intel, face recognition artificial intelligence algorithms out there. So this is the most recent ranking submitted by the the companies who who who invented those those algorithms.

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01:24:15.060 --> 01:24:28.840

David Yang: You know 5 out of the the 5 best performing at face recognition, AI algorithms are developed by Chinese companies in terms of the speed of of the of the facial recognition or the accuracy of the recognition.

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01:24:28.890 --> 01:24:43.590

David Yang: Okay, 6 out of the top 10 are occupied by the Chinese companies, and and and 2 are the Russian companies [unclear]. Not the typical distribution of the top ranking frontier technology that you would, you will, see in in many of the in many of the sectors

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01:24:43.590 --> 01:24:55.400

David Yang: And that makes AI quite special and potentially worrisome, if you think about where the technology is is coming from, coming from, and what they're useful for. So our argument in some of our previous work is that

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01:24:55.650 --> 01:24:58.170

David Yang: AI is indeed a quite a special

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01:24:58.370 --> 01:25:11.830

David Yang: technological sector that can potentially turn over the symbiosis between autocrats and the innovation in the sector. It's differed in... AI differs in other, but the from other technology in 2 primary ways. The first one is that

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01:25:11.870 --> 01:25:16.520

David Yang: the the autocratic government demands, and oftentimes collects, a huge amount of data

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01:25:16.630 --> 01:25:45.160

David Yang: that makes sort of, now, AI is a very useful thing for for, for, for for surveillance purposes, because to make the most effective surveillance, the the government would would ideally like to be able to predict the whereabouts, the the the thoughts, the behaviors of citizens, and AI fundamentally is a technology for prediction. So there is alignment between the purpose of technology and the surveillance purposes, or the surveillance motivation, for the for the regime.

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01:25:45.380 --> 01:26:03.460

David Yang: That's really quite important to think about the potential alignment between entrepreneurs who want to invest in technology and the State. The Government probably is is gonna not. It's not going to predate on the private firms, because it will, wants to continue to use those firms' product to sustain the future or the stability of the regime.

427

01:26:03.460 --> 01:26:13.760

David Yang: The firms may not want to undermine the State, because they understand the value of the future [unclear] about the government, because the government potentially wants to to demand the technology that these firms are producing.

428

01:26:14.940 --> 01:26:31.730

David Yang: The second part, aspect, that makes AI quite a special kind of technology relative to the other traditional technology is that the AI innovation is very data intensive, and data differs from the traditional inputs, such as the capital, which is money, or human capital,

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01:26:32.670 --> 01:26:36.840

David Yang: because data can be shared across multiple purposes simultaneously.

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01:26:36.920 --> 01:26:51.810

David Yang: Okay, we economists call this economy of scope, and that's good, very important because if the, if the firm receives government data to produce things for government purposes, the firm has somewhat innocently used the same government data for commercial purposes the government may not care about.

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01:26:51.930 --> 01:27:04.760

David Yang: And that's going to be quite an important thing about the broader direction in which the technology is moving forward, and the degree to which this country may not be distorted because the government's strong push for technology to move in certain direction.

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01:27:04.790 --> 01:27:13.540

David Yang: To give you one example, this this is a real product developed by a, by, by one of the the best AI firms, facial recognition firms in China. This is a commercial product

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01:27:13.540 --> 01:27:27.620

David Yang: that's meant for retail space to recognize the customers entering into the retail space, the key attributes of the customer, but also very importantly whether the customer has been a repeated customer or a newcomer, to the, to the, to the to the store space.

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01:27:27.620 --> 01:27:41.530

David Yang: That's going to be very useful, for from a retailer perspective, because that will allow the retailers to do individual advertisement or targeted advertisement, and that requires a lot of very sophisticated facial recognition to link people across time, across space.

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01:27:41.530 --> 01:27:57.630

David Yang: This is some of the product where these facial recognition AI firms can produce by using government data, by providing public security services for the State and then push the data and push the algorithms to the commercial space. Okay, so we show in that in some of our previous work that

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01:27:57.630 --> 01:28:14.280

David Yang: they're in, within China there is this ecosystem where, when local governments face political instability, they demand those AI services from the firms. The firm received huge amount of data by analyzing data on their on the government's behalf, and they push the firm to become more innovative in their product.

437

01:28:14.320 --> 01:28:25.170

David Yang: Okay, what I want to talk today is, what does this mean for the rest of the world to the extent that the products, the AI products developed by the Chinese firms, can be exported to other parts of the world?

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01:28:25.660 --> 01:28:31.680

David Yang: Does the other part of the world become a a a converging to the political regime in China?

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01:28:31.810 --> 01:28:51.480

David Yang: Okay, so do so we need to collect some data about sort of the the global trade in facial recognition AI, and and trade in in in services such as AI is, is notoriously difficult to to to to gather in the traditional trade database. So we have gone around to to sort of essentially

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01:28:51.480 --> 01:29:10.530

David Yang: take the roster of all the firms around the world that produce something that looks like AI, and go to the firms' websites, go to the firms' database, and then look at sort of all the press releases of the firm over the last a decade and a half, and see, as has the firm mentioned, anything about a foreign customer has bought the firm's product.

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01:29:10.700 --> 01:29:26.330

David Yang: Okay, so we're gonna we're gonna compile them and and using a lot of human validation to make sure these are indeed export deals that these AI firms has been has been a a signing over the past 50 years. Some examples of what's in in our database will be

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01:29:26.330 --> 01:29:42.100

David Yang: a a, a a Huawei, sell the Safe City AI Services to the government of Laos; the the German company Bosch equips the a bridge system in Hong Kong Zhuhai Macau to to allow for security services that, like, again using facial recognition AI.

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01:29:42.760 --> 01:29:54.940

David Yang: Overall, we have collected about 1,600 facial recognition AI trade deals over the this time period. Many of them are very recent, and that includes about 36 exporting countries to 136 importing countries.

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01:29:55.290 --> 01:30:02.380

David Yang: So i'm going to show you 2 primary results that we we find from this from this exercise. The first exercise you see

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01:30:02.790 --> 01:30:21.120

David Yang: Does China have a comparative advantage in facial recognition AI? If China does not have a comparative advantage in all frontier technology, but is this the case in AI, that's sort of not, uh... As suggested by by, the by, the but the ranking of of how accurate the the the, the, a, and the average algorithms, was, as I showed earlier.

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01:30:21.170 --> 01:30:38.590

David Yang: So what I'm showing you in this figure on the top panel is the export deals from China over this time period. Every every arrow is linking China to a buyer of the technology and the thickness of the arrow indicates the the amount of deals that happened during this time period.

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01:30:38.640 --> 01:30:47.650

David Yang: On the bottom panel, here, is is the equivalent of that, but it's the export deals of facial recognition AI coming out of the United States.

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01:30:47.650 --> 01:31:03.190

David Yang: Okay. So in absolute counts. You see that so much the the there are more a AI exports that's being exported out of China relative to the US. There are more bilateral links between between the buyers to a Chinese AI Company versus versus United States.

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01:31:03.650 --> 01:31:12.850

David Yang: Of course this does not immediately mean there's a comparative advantage. We have to sort of compare this against the rest of the world and against sort of the other frontier technology as as a benchmark.

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01:31:13.100 --> 01:31:19.410

David Yang: So we can do so by looking at for all the 16 sort of regularly, I think, being

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01:31:19.600 --> 01:31:31.550

David Yang: quoted as as a frontier technology out there, as we speak today, do China disproportionately export more to the rest of the world compared to other, compared to it to to to other countries?

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01:31:31.960 --> 01:31:49.100

David Yang: By what I'm showing you sort of essentially a positive number here, is is that China is exporting relatively more to the to the rest of the world compared to their counterparts. AI, by far has the highest amount of China export, uh,

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01:31:49.100 --> 01:32:13.370

David Yang: premium, you can, you can call that, relative to the other sectors. The other sectors, frontier sectors where China had a comparative advantage, relatively speaking, are radioactive materials and steam turbines, the nuclear energy sector and the the clean energy sector where, based on the news you know, you know China is doing fairly well in those sectors, but the amount of advantage they have in those sectors are are sort of dwarfed by what we see in AI sector.

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01:32:13.790 --> 01:32:24.840

David Yang: OK so China is exporting a lot more in, in relative terms, of AI to the rest of the world compared to, compared to the other [kinds of?] technology. Now, who is buying

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01:32:24.980 --> 01:32:40.820

David Yang: China's facial recognition AI products? I'm going back to this map again. Top panel, china, bottom panel US as as the exporter. Now i'm color coding each of these trade deals by by by the the political regime nature of the destination.

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01:32:40.820 --> 01:32:55.260

David Yang: So if the arrow is green, it means that the destination or the importer of the of the technology is a is a a, a, a mature democracy. Okay, we can use varied definitions for that. But but it is it's a democracy that's well-functioning and unstable.

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01:32:55.350 --> 01:33:03.510

David Yang: Okay, if the arrow is marked as red, it means the importing country is a is a autocracy or weak democracy that's fragile.

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01:33:03.870 --> 01:33:13.200

David Yang: Okay. So the the the function line from this figure is that if you look at the United States, 60% of the United States' AI deals goes to mature democracies

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01:33:13.310 --> 01:33:31.610

David Yang: which is aligned with most of the other sort of sectors, where the maturity markets are tend to be richer, and richer countries tend to buy more frontier technology because those are expensive products and expensive services. And only 30% of the US AI deals goes to a a weak democracies or autocracies. Okay.

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01:33:31.810 --> 01:33:50.350

David Yang: But if you look at China, this split between between the autocracies and and and and weak democracies versus mature democracies is about 50 50. In relative terms, that's a essentially a higher amount of autocracies than democracies buying a from China, a a in comparison with the United States.

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01:33:51.000 --> 01:33:56.650

David Yang: Again, we can compare this, this, this trend with all the other frontier technology to see:

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01:33:56.750 --> 01:34:04.310

David Yang: Does that sector have autocratic or weak democracy biases among the buyers when China is selling the technology?

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01:34:05.130 --> 01:34:22.470

David Yang: In fact, AI, quite sort of a shockingly, is the only sector out of the sixteen frontier technologies, where there's disproportionately more buyers that are weak democracies and and

and autocracies relative to the traditional, rich and and and and and strong, a mature democracies.

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01:34:22.470 --> 01:34:39.290

David Yang: Okay, so China's inventing those technology and pushing them to the frontier, and the buyers of the technology seems to start off with, with not type of a a buyers who tend to buy this frontier tech, but it's the weak democracies and and the and and strong autocracies who demand such such products.

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01:34:40.340 --> 01:34:43.380

David Yang: The final thing I want to show you is that

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01:34:43.500 --> 01:35:04.430

David Yang: when do those weak democracies and autocracies buy AI facial recognition from China? Many of the the the technology is used for surveillance purposes, or public security services. It's precisely when those countries recently experience a a protest event. There's a a what you see here, if you focus on the the red dots, which is that in the year when there's local political unrest,

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01:35:04.840 --> 01:35:10.930

David Yang: there's a substantial increase in the likelihood that that country is purchasing facial recognition AI services from China.

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01:35:10.930 --> 01:35:30.550

David Yang: That's not the case years before the unrest. That's not the case years after. And that's also, that's not the case for the importing country, who is a mature democracy that's shown in in the blue dots here, where mature democracies are not responding to domestic events, to political events, when when they think about purchasing a AI services from Chinese firms.

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01:35:30.800 --> 01:35:31.380

Okay.

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01:35:31.460 --> 01:35:50.900

David Yang: so what does this mean for, for, for, both from intellectual perspective to think about frontier technology, but also, I think, about policy engagement in the sector. Well, first is that from an intellectual perspective, I think this is a pointing to a a a different, a political economy equilibrium where

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01:35:50.900 --> 01:35:55.110

David Yang: a frontier technology here, which is the case of facial recognition AI,

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01:35:55.320 --> 01:36:10.590

David Yang: could have a a a potential symbiosis with a autocratic government, that the technology strengthens the regime and the the the regime's demand for for that technology could could help the technology to be further developed and pushed to the frontier.

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01:36:10.890 --> 01:36:14.740

David Yang: To the extent that technology is exported to the rest of the world it could

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01:36:14.740 --> 01:36:36.950

David Yang: generates a spreading of of of of similar autocratic regimes to the rest of the world that's purely from a a, a a technological spillover, aside, different from the from the the the the mechanisms that a a a Huntington, for example, have put forward, which will be the spreading of of [routine? regime?] due to the spread of of of of ideology rather than from a technological mechanisms.

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01:36:37.610 --> 01:36:54.190

David Yang: Okay, now, what's left open from a, from a, from a policy perspective is that how should we think about how to start to think about regulating AI trade? That depends on what we think the problem is, and that's, oftentimes it's going to entail a very different, a a a policy framework.

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01:36:54.270 --> 01:37:05.190

David Yang: Should we be worried about AI because facial recognition AI coming out of China is using inputs such as such as the surveillance database that may be unethically sourced?

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01:37:05.390 --> 01:37:16.010

David Yang: If that's the primary worry, then the way to think about AI should be the similar way we think about, sort-of, products made out of child labor. It is the input into the products that we deem as found undesirable.

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01:37:16.770 --> 01:37:25.400

David Yang: If the primary worry of AI is, is that the the it's, it's a representing a technological good that's generating undesirable output.

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01:37:25.600 --> 01:37:35.830

David Yang: It's not about input that matters, but it's about the output that's undesirable, then we should think about AI in a similar way we think about goods that's generating pollution that generally the global authorities that need to be incorporated.

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01:37:37.090 --> 01:37:48.710

David Yang: The third way of thinking about AI technology is to think about AI as a dual-purpose technology that can be used both for military or state a a a purposes, but also for civilian services

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01:37:48.900 --> 01:37:52.550

David Yang: which which could generate sort of the the global conflict.

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01:37:52.790 --> 01:38:21.680

David Yang: Now to regulate dual-use technology, that will quite a whole different set of policy tools, and at that which some some of it might undercut the the way you want to regulate a a AI, if if input or or undesirable outputs are the primary concerns. Okay. So I think, the the the US government, the global community, is at a a, a, a, a crossroad where, engaging with the technological sector and finding frameworks to to think about, how to

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01:38:21.680 --> 01:38:37.550

David Yang: how to how to incentivize, and how to regulate the sector moving forward given the political ramification is, at this date, is is a is a timely and and and and I think an important matter for both for the for the scholars and for the policymakers. All right, I think

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01:38:37.810 --> 01:38:40.690

David Yang: I should end here and thank you so much for your attention.

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01:38:43.840 --> 01:38:49.730

Mark C. Elliott: David, thank you for an an absolutely fascinating talk. Again, a little

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01:38:51.580 --> 01:38:54.410

Mark C. Elliott: upsetting in some ways, I suppose.

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01:38:56.370 --> 01:39:03.810

Mark C. Elliott: You know I I'm I'm curious if one of the reasons that the and maybe we end screen sharing so that we get everybody back on the

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01:39:04.200 --> 01:39:05.690

Mark C. Elliott: on the zoom screen.

489

01:39:07.760 --> 01:39:15.560

Mark C. Elliott: If one of the reasons why Chinese tech is in in this area, and facial recognition is so

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01:39:15.910 --> 01:39:23.690

Mark C. Elliott: attractive is that they figured out a way to use it to determine who's

491

01:39:23.860 --> 01:39:26.140

Mark C. Elliott: mental attitude

492

01:39:26.350 --> 01:39:39.990

Mark C. Elliott: toward the autocracy is more unfriendly just on the basis of their their appearance, or what kind of clothes they're wearing. I I I i'm only half joking, because i'm looking at that one slide that you had labeled where,

493

01:39:40.230 --> 01:39:46.880

Mark C. Elliott: the, for retail, where they were able to identify more or less the age of the person, what they were wearing

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01:39:47.020 --> 01:39:49.930

Mark C. Elliott: different kinds of

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01:39:50.000 --> 01:39:56.970

Mark C. Elliott: attributes around them, you know, depending on,

496

01:39:57.060 --> 01:40:03.620

Mark C. Elliott: you know, how they just presented in the shop, not just whether they were previous customers, but other things as well.

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01:40:04.040 --> 01:40:17.930

Mark C. Elliott: If I'm wearing a certain brand of something or other, does this, then, give me a way as belonging to you know certain class, and having a certain kind of an attitude, is, is this part of what's being built in that's made this

498

01:40:17.940 --> 01:40:22.020

Mark C. Elliott: that's given the the edge to Chinese companies? Or is it just the fact that they've

499

01:40:22.040 --> 01:40:37.670

Mark C. Elliott: in that in that ranking you began with, or is it because they just have so much more data and have much more leeway to do different things with the data that might be available to people working in, say, the United States or in in Canada or or Europe?

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01:40:39.070 --> 01:40:57.360

David Yang: Yeah. So that that's a great question. So I think a big part of of the reason why the these firms are are developing products both at the faster speed, but also at the higher quality that was shown in some of the previous [unclear] is indeed the inflow of a huge amount of government data as the firms are

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01:40:57.360 --> 01:41:04.770

David Yang: helping the the Government to to process the data and and analyze the data and from, take the data, and essentially it can can

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01:41:04.850 --> 01:41:16.510

David Yang: bring it to a commercial application. And then the customer interface is the one that I that I sort of showed. Now, one thing that I should note is that it is.

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01:41:16.610 --> 01:41:18.810

David Yang: I don't think it's immediately clear

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01:41:18.960 --> 01:41:37.590

David Yang: that how would a regular citizen perceive this? I think, from a regular citizen perspective, the most salient feature of a lot of these products will be convenience. You don't need to carry your wallet with you when you go to a supermarket is, you know, facial recognition scan of payment. It's a lot about public security. There's going to be crime reduction by a lot of this.

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01:41:37.590 --> 01:42:05.420

David Yang: Now to the byproduct of of of a lot of those new public security and and and and and commercial convenience, it also allows for the State to use this to generate stability. And now, how much, I think YaWen mentioned, how much of the, you know, there is going to be some potential input of public opinion. But it's even if we allow for that in in in the translate, it's not going to be clear which we will go, because because again, I think 98% of the of the people may not think that this is going to be a stop protesting from happening.

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01:42:05.420 --> 01:42:07.150

They may not even know about it.

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01:42:08.020 --> 01:42:17.180

Mark C. Elliott: I mean, how are people supposed to know that their faces are being scanned, and somebody comes up as oh, really glad to see you back in the shop. How are they gonna? Oh, well, I guess you just remember me

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01:42:18.290 --> 01:42:32.590

Mark C. Elliott: [David Yang: because everyone's gonna get friendly with with....] I I wonder whether this has implications for for other things. Other kinds of of frontier tech that are also very data driven such as genomic medicine, where

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01:42:32.660 --> 01:42:47.450

Mark C. Elliott: you know your your ability to determine likelihood of developing one or another sort of a condition depends upon the amassing of enormous amounts of of genomic based data which gets anonymized, but then some it can be de anonymized if necessary.

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01:42:48.940 --> 01:42:54.550

Mark C. Elliott: Anyway. I but I see that Larry Larry also has a question. So let's let's go to him.

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01:42:55.160 --> 01:43:09.460

Lawrence Bobo: Yeah. So so thank you also, David, for just a remarkable presentation. I have to... Part of me like, like Mark is going. Oh, my God! I mean if we thought Chat Gpt had scared us all, you've sketched

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01:43:09.460 --> 01:43:17.500

Lawrence Bobo: what feels like the the potential of a really dystopian future out there. But and

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01:43:17.560 --> 01:43:19.650

Lawrence Bobo: I guess my question is.

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01:43:20.060 --> 01:43:35.790

Lawrence Bobo: what really are your thoughts about the capacity for regulatory control here? And and in some ways something like Chat Gpt is is a good case in point, because we tend to think of it as the genie kind of being out of the bottle.

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01:43:36.210 --> 01:43:40.560

Lawrence Bobo: and in this case the the genie, or what's coming out of the bottle,

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01:43:40.590 --> 01:43:59.860

Lawrence Bobo: China clearly has some remarkable advantage on at least in the current marketplace, it seems to me, and an advantage that is at least serving the tastes, if not necessarily, the interests, of weak democratic states or or authoritarian leaning states.

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01:43:59.860 --> 01:44:14.100

Lawrence Bobo: So what is the capacity of of regulation, either nationally or more in some more global system to to check some of the unwanted potentials here, I guess, is the question.

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01:44:14.280 --> 01:44:17.820

David Yang: right? So so I guess that's like an extremely

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01:44:18.330 --> 01:44:27.260

David Yang: hard question. I I would say that if you take the the CHIPS Act that that that just passed in the United States, as in the US is taking the assumption that

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01:44:27.460 --> 01:44:31.240

David Yang: the way that the Government would like to think about AI is a dual-purpose technology.

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01:44:31.560 --> 01:44:48.670

David Yang: and that dual purpose technology is potentially extreme, which is that every single AI application can be used for both military and civilian purposes. So every single input, such as chips that will allow for those AI to be developed shouldn't get developed in the first place, because the US will not like those technology to be militarily purposed.

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01:44:49.190 --> 01:44:57.950

David Yang: One can argue that's a way too extreme version of of of of thinking about AI, and maybe the stretching of the definition of dual-purpose technology that may stifle a lot of the

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01:44:57.950 --> 01:45:23.020

David Yang: good commercial innovation that that may not be worth some for for for for military purposes it. It might be too aggressive to the extent that... I think, you know, the the sanction related to the to CHIPS act is, is, is it's unprecedentedly sort of broad and and and and and and far reaching. You might worry with the what's going to be the the implementation of that. How much evasion of it there will be, and how much of the the

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01:45:23.020 --> 01:45:38.300

David Yang: the, the the unintended consequences of such a aggressive version of the of the of the sanction will will become? I think these things are, should be discussed before sort of, we essentially throw the the the most aggressive sanction in in in that sector.

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01:45:38.300 --> 01:45:43.540

David Yang: And there could be more, much more nuanced a policy responses. But I think that's a

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01:45:43.790 --> 01:45:46.330

David Yang: will be useful policy debate.

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01:45:46.780 --> 01:45:55.620

Mark C. Elliott: Yeah, David. Actually, the point you make this now is just putting on my vice provost hat. You know we're we're we're very much trying to

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01:45:55.700 --> 01:46:02.890

Mark C. Elliott: deal with this, because obviously, you know, we we must obey the law, and and we want to make sure we're we're we're doing right.

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01:46:03.280 --> 01:46:09.280

Mark C. Elliott: But in terms of the implications of what kinds of technologies can be used. The

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01:46:09.360 --> 01:46:20.020

Mark C. Elliott: oh, you know the the ramifications for different kinds of research collaborations that we engage in with, not just with China, but with all kinds of places

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01:46:20.210 --> 01:46:24.920

Mark C. Elliott: are potentially affected, depending on what kinds of

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01:46:25.100 --> 01:46:37.410

Mark C. Elliott: instrumentation and so forth, ends up being me necessary for the work that's that's that's being done that normally would involve teams that are that are international, as most most scientific research is these days. So you've,

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01:46:37.720 --> 01:46:41.410

Mark C. Elliott: I mean, what you're talking about is, it's, that's not the future, that's now

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01:46:42.480 --> 01:46:43.450

Mark C. Elliott: for us.

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01:46:45.370 --> 01:46:47.870

Mark C. Elliott: Oh, Yuhua, I see your hand is up. Please go ahead.

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01:46:48.230 --> 01:47:01.710

Yuhua Wang: Yeah, thanks, thanks, David. This is really fascinating. Since Larry mentioned Chat Gpt. It makes me think because in China, in recent months there has been a lot of discussion about Chat GPT. I think one of the questions

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01:47:01.770 --> 01:47:09.270

Yuhua Wang: they ask is, why is it not a Chinese firm that designed Chat GPT, right? And then I think that that makes me think about. Maybe...

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01:47:09.400 --> 01:47:12.540

Yuhua Wang: I just wonder your thoughts on this. So,

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01:47:12.670 --> 01:47:22.490

Yuhua Wang: do you think AI maybe has different dimensions or different aspects? And then you know, the the facial recognition certainly is facilitating state repression, state control,

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01:47:22.640 --> 01:47:43.780

Yuhua Wang: state repression. Therefore the government is interested in developing, funding that type of AI. But then for Chat GPT it's really about spreading information, right? It's giving more information to the citizens, and then that maybe the Chinese government is not really interested in funding that type of AI. So do you think there are different types of AI? And then they follow different logics in China?

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01:47:43.900 --> 01:47:52.880

David Yang: Yeah. Great thanks. That's a fascinating and an important question. I think part of the argument is is that within facial recognition AI because the data are,

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01:47:52.990 --> 01:47:59.210

David Yang: can have multiple purposes. So it doesn't generate as much of distortion as one would have probably have thought.

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01:47:59.580 --> 01:48:11.880

David Yang: But that does not mean that, sort of, there's no distortion across different dimensions of AI. Okay? So even within visual recognition I think we see some patterns where a lot of efforts has been put towards facial recognition;

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01:48:11.880 --> 01:48:27.040

David Yang: the autonomous vehicle sector, which also at some point is neural network recognizing objects from an image, is not nearly as well developed in China. And if it's, think about, so that's, that's all still with an image domain. And if you think about image to text which will be Chat GPT,

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01:48:27.040 --> 01:48:56.640

David Yang: or sort of image that's in in the in the nature of medical purposes, medical applications of of AI. To what extent things are transferable to those sectors, what are, you know... Because China has been put so much resources towards facial recognition, things got crowded out in the text space, such as Chat GPT, I think that's going to be that's going to be

crucial to to to understand when we... One thing that I should be clear is that this is not a argument to to to set about you should expect to see every single frontier technology developing in autocracies.

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01:48:56.640 --> 01:49:07.510

David Yang: This is all going to say there are, there could, there could exist technological sectors where, when incentives are aligned [unintelligible]

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01:49:07.510 --> 01:49:24.080

David Yang: but that can very well be at the at the cost of some other application that may be more commercially, or you know, humanely, or well for improving, that don't get developed because of the problem. So we just don't know that, at least empirically, but that's something that's definitely worth studying.

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01:49:25.300 --> 01:49:28.950

Mark C. Elliott: You know the the dual use thing I mean, this is

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01:49:29.150 --> 01:49:35.270

Mark C. Elliott: classic two, you know, two-edged sword, I mean. It really depends on what you want to use it for right? Ya-Wen. Please go ahead.

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01:49:35.790 --> 01:49:49.590

Ya-Wen Lei: Yeah, I just have a a related question. So just, there are a lot of, so after Chat GPT became popular, there are a lot of discussions in China about the relationship between censorship

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01:49:49.620 --> 01:50:02.850

Ya-Wen Lei: and also development of AI, at least in terms of... There are so many different kinds of AI, facial recognition is only one product, right? And then I'm just curious about how, David, you think about the relationship between,

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01:50:02.850 --> 01:50:18.250

Ya-Wen Lei: between censorship, and also the development of AI. A lot of people said that because of data, I I mean, if you want to train some kind of model for things like Chat GPT then it's a better that you don't have censorship. So how do you think about the impact of censorship?

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01:50:18.980 --> 01:50:38.100

David Yang: No, that's that's a fascinating question. So, in fact, there's a graduate student here working with me. His dissertation is about. There is a limit of, you know, because the internet in China is censored that affects the quality of text data that enter into the the the text, the algorithm.

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01:50:38.280 --> 01:50:40.590

David Yang: That was the limit of how far technology can go.

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01:50:41.000 --> 01:50:52.180

David Yang: But the catch 22 of this is that because there's a free world out there, the Twitter data is uncensored. That can be used by the Chinese firms to improve the that the the algorithm and he's trying to show that

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01:50:52.190 --> 01:51:19.300

David Yang: had the Twitter uncensored data would not be there, the, you know, the the both the censorship algorithms, and also the, a lot of the domestic sort of Chat GPT style of development will be a lot worse. So in some sense it's the uncensored rest of the world is is is supplementing the censored environment in China that capped a lot of the the text data is ongoing. And that generated a huge amount of, you know, even more complicated, a a sort of, you know,

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01:51:19.300 --> 01:51:31.730

David Yang: dilemmas about about about how to engage this. And and so these are, I think, are super interesting topics for for study.

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01:51:31.900 --> 01:51:41.270

Mark C. Elliott: Oh yeah, it's so interesting. And I. Well. I have lots of other questions, and and thoughts but we are. We are at time, and i'm just going to pass the

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01:51:41.480 --> 01:52:02.930

Mark C. Elliott: pass the microphone over to my friend and colleague, Dean Bobo, to wrap things up. And but before I do that I want to thank Victor, Yuhua, Ya-Wen, and David, everyone for making my job so easy by staying on time and giving such fantastically wonderful and and

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01:52:03.100 --> 01:52:06.710

Mark C. Elliott: fascinating talks lots for us to think about.

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01:52:07.130 --> 01:52:08.820

Mark C. Elliott: and

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01:52:09.330 --> 01:52:20.860

Mark C. Elliott: oh, just a really interesting evening. What a... Larry! What a great symposium! Thank you for pulling, putting this together, and and Jennifer and and everybody on your staff for the work that they put into organizing.

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01:52:20.900 --> 01:52:32.990

Lawrence Bobo: Yeah, well, thank you, Mark. I think this really, as you said, been a wonderful panel, Victor, Yuhua, Ya-Wen, and David. This is spectacular and kind of

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01:52:32.990 --> 01:52:41.520

Lawrence Bobo: far beyond my my own hopes for for what this past- panel could could generate in terms of our thinking, giving us this picture of

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01:52:41.520 --> 01:53:01.450

Lawrence Bobo: state development and evolution, state interaction with the economy, state interaction with the economy, especially as we in theory get into our post industrial age, where technology is dominating and playing a very different role in the relation between peoples and government and and the State.

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01:53:01.450 --> 01:53:15.430

Lawrence Bobo: This is really fascinating, and it's great to see such a remarkably strong cohort of young China related scholars here at Harvard. I think we're in a quite remarkable

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01:53:15.430 --> 01:53:33.490

Lawrence Bobo: position, and my my heartfelt thanks to congratulations to each of you. My thanks again to Mark, this has been a really wonderful audience. My office, along with the the great assistance of of Jennifer Shephard, who is a multi skilled and super talented.

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01:53:33.490 --> 01:53:48.460

Lawrence Bobo: We will try to make a a version of of this panel discussion, this symposium available comparatively soon and quickly, but it'll be on the divisional website, and we will let you all know when this happens.

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01:53:48.460 --> 01:53:59.910

Lawrence Bobo: But again, my thanks to you all, and to all enjoy the remainder of of the the day.
And don't let AI worry you too much.

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01:53:59.920 --> 01:54:03.160

Lawrence Bobo: Thank you.

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01:54:03.600 --> 01:54:06.170

Ya-Wen Lei: Goodbye, everybody.

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01:54:06.410 --> 01:54:08.050

Victor Seow: Thanks, everyone. Take care now.

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01:54:08.690 --> 01:54:09.900

Ya-Wen Lei: thank you.