Professor Bill Dutton

Interviewed by

Tom Abram

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Via Zoom

Welcome to the Archives of IT where we capture the past in order to inspire the future. Er, I'm Tom Abram, Director of the Archives of IT, and my credentials for being here talking about technology are that 50 years ago or thereabouts, doing my doctorate on digital signal processing, I was putting together processors to do things that computers weren't fast enough to do in those days. Er, I've been fiddling about with information technology ever since, one way or another.

Er, it's June the 29th 2021, and we're on Zoom, er, as is customary in these post-Covid days and we're here today to talk with Professor Bill Dutton. Welcome, Bill.

[00:00:54]
Thank you.

[00:00:55]
Bill holds a plethora of professorships and academic appointments er, most notably at the University of Oxford and the University of Southern California and, erm, I also— looking at his list of experience, the, er, the role at Michigan State University as the James H Quello Professor stands out as…as another achievement and honour. Erm, Bill was introduced to us in his role as the first director of the Oxford Internet Institute, er, which—a position which he held from 2002 to 2011. And er, we'll get on to talking a bit about the Oxford Internet Institute and indeed the internet later on. But erm, first of all, I would like to ask Bill a bit about, erm, er, his formative years and how he came to be the, er, the first, er, director and professor at that post.

So, Bill, erm, when were you born?

[00:02:14]
Oh, I was born in 1947, August of 1947, so, er—

[00:02:19]
And whereabouts was that?

[00:02:21]

It was in St Joseph Missouri, that's a, er, er, that's in the Western part of Missouri, er, that was where the Pony Express began, it was the first tele… telecommunications project, er, it only lasted six months, I think. Erm, and then the, er, many of the wagon trains to the West started from St Joe, that was a big industry, wagon wheels, and all those things, and the stock—the stock markets, as livestock.

[00:02:51]

So, how did you come to be born there, what were your parents doing there?

[00:02:56]

Oh, my, erm, mother's family, er, were Ukrainian immigrants to the United States and worked in the er, packing plants in St Joseph, Missouri, you know, the stockyards. And er, my father's family, erm, went from Kentucky to Kansas, erm, where they had a ranch in Kansas that they lost during the depression. And my grandfather, er, moved to St Joseph, Missouri, and er, began a, er, a sheep commission company where he, erm, basically, er, marketed sheep for farmers and brought—er, told them when to bring them in to sell them to the packing plants and so forth.

[00:03:40]

So, you---

[00:03:40]

My father took his job—sorry?

[00:03:44]

Your grandfather was a bit of an entrepreneur by the sound of it then?

[00:03:48]

Yes, yeah, that's right, he…you know, and my father took his—erm, became, er, head of the company… the Dutton Sheep Commission Company, er, when, er, my grandfather—before my grandfather died. And erm, but yes, but he knew—erm, my father told never—to get out of this business because the telecommunications are

going to kill the…the…the commission companies [laugh] and they did, of course, very, very quickly [unclear 00:04:18].

[00:04:18]

So, it sounds like, o…on your father's side, there were, you know, er, a long, ah, heritage of, erm, USA, er, ancestors whereas on your mother's side, it was, er, er, more recent, er, immigration to the USA, is that right?

[00:04:35]

Yes, yes, yes, my, er, yeah. Although I don't speak Ukrainian, I, er, so, you may not think I'm Ukrainian but yeah, my mother would—er, at that time, it was post-World War 2 and, er, people were, er, er, my grandparents were schooled not to—not to teach me Ukrainian, not to—[laughs] although I was amused by it, but yes, it was, you know—it…it…it was… it was an interesting mix of immigrant and…and US westerners, I guess.

[00:05:13]

So, no…nobody in your family had previously been to university, I would guess?

[00:05:21]

No, no, no, my mother was, er, a…a secretary and my father went to high school, but er, no… never went beyond high school, but he always encouraged my education and was… read… read constantly, so he was—

[00:05:39]

Yeah. So, what…what was it like growing up there, what…what kind of place was it?

[00:05:45]

It was, er, it was beautiful, it was very—you know, it was the kind of place where you could walk to school and I don't—you know, I don't even remember anybody ever taking me to school or picking me up, but you know, just, er, you had a lot of independence and a lot of ability to do whatever you want and move anywhere in the city you'd like. So, it was sort of a medium-sized city, and it was a…a safe and, er, er, great people. I still stay in touch with a lot of my er, childhood friends, and high

school friends, on Facebook and social media. So, er, er, I'm very, still very fond of St Joe and the, er, the people I grew up with there.

[00:06:29]
Did you have brothers and sisters?

[00:06:32]
I…I had an older sister, yes, and she… but she was great and er, I met all the older… older, g…girlfriends of hers [laughs]. So, I was always… I er, always wanted to be around, so, anyway.

[00:06:48]
So, what…what did you think of school then, I mean, what kind of school did you go to?

[00:06:54]
I went just to a public…public school, er, it was called Noyes School and it was relatively small classrooms, er, you know, 20 students, 20 to 30 students in a class and it was, er, erm. But it was—I…I…I mainly remember, you know the, er, staying after school and playing baseball and you know, doing—erm, but I felt like I had a…a reasonably good e…education, er. But I was not really academically—I didn't feel like I was as academically—very academically orientated until I went to college.

[00:07:33]
Yeah.

[00:07:34]
Mmm, so.

[00:07:35]
A…any particular things that you enjoyed apart from baseball-- you know?

[00:07:42]

Well, all sports, all sports, but I was a… I had an injury, I had a kidney injury when I was in like 4th or 5th Grade, er, and so, I stopped playing contact sports and mainly started swimming, and so, I was a competitive swimmer and diver, and I er, dove competitively and I think I got a medal in the Junior Olympics in the Mid-West and er—

[00:08:11]
Wow.

[00:08:12]
But, so, I…I… I love swimming and breaststroke was my stroke and…and I won quite a few medals in that area as well. So, I really, I—you know, I felt like an athlete. I even took up surfing when I went to California and, er, partly because of my swimming background and found that to be one of the most wonderful sports in the world, so.

[00:08:35]
And are you still doing those things?

[00:08:37]
No, no longer surfing, erm, Oxford is a little inland, so—[laughs]. I did… er, I did come to—you know, I have some funny stories about, but I…I…I've surfed in various places in—across England and Wales, er, before.

[00:08:54]
Yeah.

[00:08:55]
Not… not big waves.

[00:08:59]
So, erm, you…you graduated from the University of Missouri, Columbia, was that erm, was that kind of the local university, or erm, how… how did you end up there?
[00:09:11]

That was the main public university in Missouri. Er, I really didn't… let's see, I really didn't think about er, er, going elsewhere. I was…when I went to college, I was… I was—began as a pre-med student, er, I was, er, my parents encouraged me to be—go into medicine or dentistry or something that…that—

[00:09:38]
Yeah.

[00:09:40]
Er, er, financially rewarding and…and whatever and so, I…I went along that way. So, the first years at Miss… University of Missouri, I was a pre-med student and was taking general science and chemistry, physics, and so forth.

[00:09:56]
Yeah.

[00:09:59]
Well, I'm sure you understand our education system better than I understand the American system, but erm, I mean in this country, erm, your destiny in terms of what you study at university is… is pretty clearly set out by the A-Levels that you do. But I guess that's not quite so much the case in the USA, is it?

[00:10:18]
No, not at all, it's really quite, er… I mean, I admire the, er, the British Educational System and I think it…it's fantastic and, erm, I'm always impressed with—the…the joke in the erm, the US is—or in the UK as well is…is that you can get a good high school education in the United States, but you have to go to college to get it [laughs]

[00:10:43]
[Laughs].

[00:10:46]

Erm, I think in many ways the coll… the first 4 years of college are almost er, er… in many ways, er, focusing on many of the issues that you focus on…in…in… high school in…in…in the UK, er.

[00:11:03]
Yeah. So, it's—

[00:11:05]
So, you can go in many directions.

[00:11:09]
You started off in medicine, so, what…what…what brought about the switch then?

[00:11:13]
Well, I erm, as…as I went—because I was studying pre-medicine, I…I… er, I went to the local hospital and I said… and I asked them if I could work there and I worked there as an orderly, er, during the time I was going to college and I think after my sophomore through my senior year. And erm, and I didn't, you know, I worked in the emergency room and on the floors and every… everywhere in the hospital at that time, where they needed help and… and I decided I didn't really want to be a doctor [laughs]. I didn't want to go into that profession, I…I… I worked with a lot of doctors there and so forth, but… erm. And also, I, erm, took a, er…er… several courses in political science that just really in…in… I found engaging, tremendously engaging and I got a lot of positive feedback from my, er, faculty, er, at the University of Missouri and, er, o…o…one professor in particular, and er, really took off in erm, er, focusing on political science and m…managed to graduate with honours in political science. So, I switched entirely and erm, the, erm… and it was that… actually, it was that du…during…during my studies in political science that I… that I started using computers, as, erm, because I started doing quantitative analysis of…of erm, of voting behaviour in the French National Assembly and the US Congress and trying to compare voting patterns and leverages within the… within the, erm, elected officials and the liberal Conservative and other… other privileges. And er, and—so, I was carrying boxes of…of computer cards, you know, er, punch cards around [laughs] for the last couple of years of my college career and… and I just found that

fascinating and so, er, that's when I started learning how to programme and develop programmes for writing, er, for doing analysis and—

[00:13:29]
Yeah.

[00:13:30]
That's what… but then erm, you know, I mean, I really—but I did not see a career in political science or—but I—erm, that was, you know, the Vietnam War was going on then and I was going to be drafted and I knew I was going to be drafted, and so, I decided to go take a master's degree in political science before I was drafted and then I might go back to law school, when I… erm, got out. But erm, but I failed the er, physical when I was on my way with my er, fellows at high school to—for the physical exam for the, er—because of my kidney injury, I had earlier. And er and went on and just really loved political science and kept… kept going in my political science career.

[00:14:21]
So, I'm sure you're unique in the archive to date erm, in terms—you would probably be the only political scientist to be interviewed, which I…I find it fascinating actually because, erm, erm, it…it never occurred to me that, erm, that, er, that the guy who, erm, became the first director of the Internet Institute with all of those erm, technological connotations, erm, you know, would come from a background that was more about the impact on society than it was the use of technology. So, I…I…I think this is really interesting and a theme I'd like to…to pursue a bit. But erm, just… just out of interest, when you were doing your computing at college, what…what kind of computer were you doing it on?

[00:15:17]
Oh, with…with mainframe, you know, IBM mainframe computers and er, at the… you know, as an undergraduate, right and erm—I would have to take—you know, take the cards in, and weight them, pick them up and.

[00:15:31]

Yeah, and what languages?

[00:15:35]

Er, I… Fortran was…I basically studied Fortran computing to… and… and mainly wrote programmes to create indexes, to create—fix missing data, to correct for—you know to do correlations, and so forth. So, they didn't have statistical packages like they have today. And erm, so, you had to learn a little bit of programming and…and a little bit about technology to just simply use computing, but, but no, I was not…I was not… I was, you know when you introduced yourself, I said, well, yes, we've come from very different paths and er, I've never really taken a computer science course. But that's actually never—that's never bothered me, I had never taken a communication course, but I went into a school of communication to teach and er— But I found, erm, but most political scientists don't think that they ever have anything to do with IT either. I mean, you know, this is er—the field of IT is becoming increasingly multi-disciplinary, but it wasn't that way. I mean—I think the biggest struggles I've had in my career has always been people thinking that erm—well, for example, political scientists should not be interested in IT, where—there is not really a political science question here. And I… and I've always thought no, I a…actually think there are some really interesting issues about the political implications of computing and that, er, should be central to the field.

[00:17:17]

Yeah, I would like to pursue that a bit, just to put a…a stake in the ground, for the erm, for the listener, or er, watcher, or whatever. So, we're talking about 1971 when you got your master's erm, from the University of New York, Buffalo, is that right?

[00:17:35]

Yes, yes.

[00:17:39]

Fa…famous for its wings, of course [laughs].

[00:17:43]

Well, you laugh and I… when I went when—er, my first wife and I, we drove into Buffalo for the first time, er, I guess that was '69, '70, and erm, we saw these windows in the shops saying "We sell buffalo wings—we sell wings, chicken wings, here" and I… they didn't call them buffalo wings, they called them chicken wings, and I'm thinking and I'm thinking… well, gosh, back in Missouri that…that… we would throw those away, or you know, it would be—[laughs] we would never advertise it. But they have obviously become very famous and…and…

[00:18:20]
When were they invented?

[00:18:20]
I bought some buffalo wings—erm, spice [laughs].

[00:18:27]
Well, Mr Frank and his sauce did very well out of it, I'm sure.

[00:18:31]
Oh, yeah, it was a great invention.

[00:18:34]
So, that was '71, and then you did a PhD after that, is that right, at the same place?

[00:18:39]
Yes, yes, I… erm, that's right. Er, they had… they had a, erm—one of the… one of the attractions—I had a scholarship just so that I could afford to go to, er, SUNY Buffalo, and they… they also had a 3 or 4 year PhD programme, so, I… I could t…take… get a master's degree on route to a PhD if I wanted to continue on, and that's erm—A lot of PhD programmes, if you… if you come into the fresh, you have to take a master's sort of—get their master's degree as well. But anyway, it was… it was great, they—It was a new university at that time, and they were trying to… Rockefeller was trying to create a university that could compete with the University of California system. So, they hired some really great professors and er… I had, er,

terrific, inspiring professors in er, in political behaviour, like Les Milbrath and political philosophy [philosophy of science], like Paul Diesing and others.

[00:19:47]
Yeah.

[00:19:49]
Erm, it was…it was…it was terrific, I—so, I studied urban politics, comparative politics, and… and… er, research methods, so, I was mainly a—that's… and I made my… I was able to make money… er, helping on the professors on their research erm, methods, or if they were doing data analysis for the faculty and that helped me er, earn extra… extra stipends and so forth.

[00:20:19]
So, erm, so, after your PhD, you, erm, you, I…I guess became er, a teacher, lecturer, whatever you erm, care to call it, erm, in…in that area of political science?

[00:20:36]
That's right. I, er, I took er, a… I was… I was invited to stay on at SUNY, I was invited to go with uh, Rudolph Wildenmann to Germany to work with him in Germany, or to stay on at SUNY and work with Les Milbrath on a project. But my wife said, that, er, we're… we're leaving, you're not going to be a graduate student anymore. So, we're… so, I took a job at the University of South Florida as a political science professor and taught urban politics and erm, it was… it was fine, I really enjoyed that, but it gave me my first sort of intensive focus on teaching, a lot—it was primarily a teaching institution, like 4 courses a quarter and things like that.

[00:21:20]
Yeah. So, what…what were the big issues in… in those days—I mean, what…what was the… the hot topic in political science at that time?

[00:21:33]
Well, they, er… r..related to my work, I mean this was, er, this was an era in which there was a lot of research on erm, democratic forms of government and… and er,

Robert Dahl's work on er, er, er, pluralism and how… what pluralist politic…
realistic, trying to develop realistic, empirically anchored, perspectives on how
democracy really works, rather than sort of an imagined, er, ideal democracy of, erm.
And, you know, how do… how do people really, er, er, make decisions in…in
congressional bodies and parliamentary bodies, and how…how do decisions get made
in a democratic… liberal democratic institution? In urban politics, it was all about
you know, it was the urban crisis was clearly a major focus. Er, you know, this was
1971 was the time of the—that's when Nixon went to China, and er, this was er, right
in the midst of the Vietnam War. It was an incredible time, I mean, part of my time
in… as a student in, erm, at SUNY was we were on strike, the, er, students were…
were on strike around the Vietnam War protests and… er. And I was…, er, I was one
of the volunteers for the peace patrol, where—I don't know if you've ever heard of
such a thing [laughs]. But we would… we would stand between the protestors and
the police, and erm, and we'd… and we'd… say, what are we doing here, and this is
crazy—[laughs]. But er, anyway, so, I was very much involved in what was going on
on college campuses in the early '70s and that time.

[00:23:34]
*Yeah. I see that one of your current interests is… is…something called the Fifth
Estate, which is a research project, er, looking at the internet's role in enabling, erm
democratic accountability or democratic process, whatever which, erm, is, erm, well,
an interesting concept, isn't it, er, I mean?*

[00:24:03]
I find it… I…I think it is the most important I've thought about and…and
conceptualised as a political scientist, and erm—but it came about actually, the—from
the very beginning, as a political scientist, when I graduated from SUNY after I taught
for a while at… at the University of South Florida, I was hired, erm, by a research
project at the University of California Irvine and they had the first major NSF
f…funded, er, evaluation of the impacts of computers in government.
[00:24:40]
Yeah.

[00:24:41]

And er…and I knew how to do the research for that, I, er, I mean, they didn't have researchers on their team, they had people who understood management and, er, political science and computer science, but they had nobody who understood research er, methods and…and we had to study how computers were used in cities across the US and also we did intensive research in 40 US cities, and I pulled together the methods for that. And that got me interested in actually, the impacts of computing in government.

[00:25:15]
Yeah.

[00:25:16]

And because of my background in political science, my focus was naturally on whether and how computing and the introduction of computing might reconfigure power in organisations like governments.

[00:25:35]
Yeah.

[00:25:38]

Er, most of my early work in political science of, and in…in the area of government and politics, what talking about how generally we found in that…in that research and in past… follow-on research, that computing basically was used and implemented in ways that would reinforce existing power structures. So, many thought that computing would have a deterministic effect that it might empower the technocrats in…in organisations, or…or it would have… it would benefit top managers who would know what is going on in all aspects of their organisation that they could never know before computing because now they have all the information at their hands. So, they…they were deterministic views of the power shifts related to computing and we argue that no, it's…if you have a very centrally-controlled local government, they will adopt computing and adapt it in ways that will reinforce that centralised control.

[00:26:46]

Right.

[00:26:47]

Er, likewise, if it is a large city that is very pluralistic and very fragmented, lo and behold, er, those fragmented organisations will use computing to reinforce that—the power of the planning department, the power of the police department, and so forth. So, that it reinforces, not…not…not deterministically shapes power.

[00:27:12]

So, we…we're still talking about 1970s and '80s here, are we?

[00:27:17]

Exactly, exactly, and, erm… excuse me, that's a dog… that the, er, hopefully, he'll go downstairs… The, erm, the—what happened was is… let me just close the door. Erm, the…the internet changed that for me and it was the first time where I saw, that actually, erm, there was a way in which the, erm, the internet was enabling network individuals, er, to create their own information, to search and create… source their own information through search and social media and to aggregate what they know with other people in their social networks and ways that…that… they, er, were able to become a source of information, much like the press and they were actually able to hold other institutions accountable, including the press and government. And so, er, individuals we're not really an institution of government, they just vote, right. But they are becoming more and more of a force equivalent to the press in an earlier era, which we started to call the Fourth Estate, the press could reach so many people, they…they became a…a…an independent source of influence on…on politics.

Now, the internet is enabling, erm, some network individuals who strategically use the internet to have more information or communicative power in relation to institutions and they are becoming a new force in politics that—so, it's…it's not reinforcing, and it wasn't e…it's not really considered in normal institutional structures about politics, it's about new… a new collectivity of individuals that are influencing po…political programmes.

[00:29:28]

Yeah.

[00:29:31]

So, new power shift.

[00:29:33]

Right, that's interesting, erm, I mean, the…the, I'm going off-track a bit here, but, you know, er, the thing…the thing that I'm most conscious of in terms of er, the internet and government, erm, is… is what happened in the UK in the late '90s and early 2000s, you know, which we called modernising government, you know, the Tony Blair, modernising government initiative which was about putting, er, government online so that, you know, um, we started doing our taxes online, our self-assessment whatever. Erm, you, erm, you became able to tax your car online and, erm, you know, all…all of those and…and indeed, all government information, you know, migrated from kind of paper in…in the mid-90s to all online by—I don't know, 2010 or something so that, you know, the business of the citizen interacting in government, just increasingly became through the computer on the desktop.

[00:30:46]

Yeah. Yes, well, there… er… so, you're suggest… well, in…in…in many ways maybe distancing citizens from direct involvement in government and coming to city hall or so—that kind of thing, yeah.

[00:31:01]

Yeah.

[00:31:03]

Erm, it… it has, and I think, er, it… you know and if… if and if not used well it can actually, you know, computing can be used in ways that, er, distance government from the public and… or erm, what it… it can be implemented in so many different ways. That's part of what we—I talk about is the… is the fact that computing doesn't have an inherent impact of… or role in government. But in the early days, like the

1990s, e-gov…early e-government work was—and even when we studied it, it was mainly automating, existing processes.

[00:31:42]
Yes.

[00:31:44]
And as we began to understand more about the potential of computing it… we were actually changing the way we do things. So, we…we…we're—once we know the—how computing enables us to do things in different ways, we were actually changing the way we do it in order that we're—For example, we…we had one of the—our study in the seven—in the, erm, er, late '70s early '80s was one of the very first evaluations of computing in government and it's, er, er, just astounding to me to think that we were—we…we actually were paid [laughs] to say should government buy all these computers?

[00:32:29]
Yeah.

[00:32:29]
Is it going to cost more than it's worth and so forth, but… but even then, we found I think, maybe we were implying in the early days is that many governments didn't really save much money and they didn't really make things more efficient in the early days because they were…they were automating parts of processes and they just created bottlenecks elsewhere and—

[00:32:55]
Yeah.

[00:32:56]
And so, we didn't really know… g…governments didn't really know how to think, erm, about our…
[00:33:03]
That's… that's my experience there of—and in the '90s.

[00:33:09]

Well, yeah, that's still… there are still problems with this, and I think that you know, this is why you need people who are growing up today with technology, with, you know, with, erm, the ability to use computing in the home and mobile and anywhere, any place, to rethink how these things can be done in a way that, er, ties people bet… more closely to government. I mean we can—we know more about what government is doing now and we, er, and there are much more involvement of… of citizens online and through social media, and public opinion polls and you name it.

[00:33:46]
Yeah.

[00:33:47]

People are, to a degree, that now, people are actually worried about the, er, popular opinion and, er, populism and whatever, as a, er, as the people becoming too powerful to erm—what…what's going on here? It's…it's scaring… it's scaring people.

[00:34:07]

And do you include in…in… in that sort of sphere the…the influence of, erm, well, as…as…as alleged the Russians interfering in the US election and erm, the like, by, erm, the…the power of disinformation?

[00:34:25]

Well, I, er, I…I think they did… they, er, I, er, I agree that they, erm, the…a number of sources a…argue that they, you know, they…they certainly tried to do this and, erm, and… and there have been some, er, real scandals around disinformation. But, for example, many of the, erm, some of the work I've done, and…and in very much in the spirit…the spirit…the spirit of users having some control is that erm, much of the hand-wringing over misinformation underestimates the user, I think. Erm, e…everybody thinks other people are fooled—I'm okay, but o…other people are too dumb to realise that this is fake news or fake.

[00:35:17]
Yeah.

[00:35:19]

When we…we surveyed in… in 2016, erm, after the Cambridge Analytica, er, scandal and so forth, we surveyed p…people about how they get information about politics and…and in 7 countries, er, the US, Britain included but, er, as 6… those 6 largest EU countries and…and the US. And in every country, erm, people who use the internet, when they want information about politics, they tend to get information from more than 4 sources, the internet being one of those sources, so… erm. And… and when they go online to get information, they get information from more than 4 sources online.

[00:36:11]
Yeah.

[00:36:13]

So, this deterministic notion of people living in a filter bubble where Google or Facebook simply tweaks exactly what they know and see, and they continue to see what they want to see because it just reinforces their preferences—is naive about how users actually use the internet. It…it makes logical sense from a technologically—the technical features of search or, erm, but it…but it…it's naïve about how actually people use the internet. So, people, it's just like people who are interested in sports, erm, they read everything they can about what's going on in sports and they don't necessarily trust or are not fooled by any one source or any commen…one commentator, or—

[00:37:06]
Yeah.

[00:37:06]

And that's the same in politics so, so, er, while people will and have always tried to misinform and…and use propaganda and other things in politics, erm, people who are interested in politics are end-users, have more and more capabilities of informing themselves and checking facts, erm. And so, I see a lot of promise and I think more emphasis should be placed on… on, er, er, alerting…er, alerting the public to how

they can be aware of, er, er, issues around this information and…and not so much, er, regulating the tech companies to censor—

[00:37:50]
Right, yeah.

[00:37:51]
Censor the internet. I think, yeah, I think it's…it's too much of the, er, the…the internet has become a the…the sort of the tech companies, and the tech-lash has become a… a, er, scapegoat for…for elections that didn't go the way a lot of people thought they'd go [laughs].

[00:38:13]
So, can I draw… can I draw you back to the…the 1980s, when erm, you want to the Annenberg School for Communications at the University of Southern California, is that right?

[00:38:27]
Yes.

[00:38:28]
And erm, I mean that's I…I think you'll hear your CV, that is kind of where communications you know, pops up with big letters and, um, and… seems to be a…a…a key step in…in, you know, you're heading towards that internet, um, stuff. I…I was just interested to know, you know, um, what…what part the changing communications technology was playing in our lives and, um, er, society then? Because I mean there was…there was quite a lot of change going on in communications, you know, we were heading for mobile phones, and um, I guess, er, TV and some rudimentary videotex services and so on. So, I mean, was that a kind of turning point, um, in…in terms of how we used communications in our lives?

[00:39:31]

I think so. I…I mean it was a… it was the time of new media, it was, you know, it was really new media was a big…big deal and, er, er, when they hired me, I had never… I…I mentioned, I had never taken a course in communications but I… but I was sort of recruited for this job… er, for… to apply for a job at… at the Annenberg School and they, erm,… and I told them that I really had not studied communications and they said, we know, but you understand the use of computing and, you know, because I had been studying computing in organisations and… and people in the communication field at that time, were…were really trained in… er, you know, they studied film and television and, er, public television, commercial television, programming and—And they had really no technical or even user focus on… on computing and how… how computing might—Because this was a time in which people began to talk about the convergence of computing and telecommunications and broadcasting. And what does this mean, and what…what can we do and what…what how will this change the way we get information and—so, this was exactly at a time where, um, there was a…a… move towards interactive cable television. So, the idea of cable enabling far more channels of television into the home but also two-way communication between the home and… and the television station, the local cable television station.

So, this was a big deal and then, at the same time, videotex, the idea of having a computer terminal that would be able to link through your telephone to get information and display it on your TV set. Er, they had the, er, Minitel in France, Prestel in the UK and, I—literally, in the early '80s, er, half the students that came to the Annenberg School wanted to design information for videotex systems and…and er, it was the one question was whether videotex or ca… interactive cable would be the future of media. And the internet was of course around by then, I mean, the web was… the web was invented in, at… at CERN, in 1983 or so, and erm—but the…the students weren't interested in it, it was really tex and pretty difficult to use and it was not until, you know later browsers that… and er, electronic bulletin boards were local. So…so, it was—yeah, we had the electronic bulletin boards, the internet at varying nascent stages, the, er—the videotex, interactive cable, satellite communications, which was huge, erm, a…and… we were always trying to figure out how we're going to use the satellite dish on top of the Annenberg School [laughs]. So, it was, a… it

was a time of really, er, many, er, many different scenarios about how communications would evolve, and er, students were fascinated with it and wanted to get into the new industries that might form from that.

[00:42:59]

And did anybody see what was coming? You know, I mean, I…I remember people telling me about the convergence of IT and telecoms and…and I really didn't understand what they meant, you know. I mean, in… in the UK in the 19—er, start of the 1980s, British Telecom would sell you a, you know a handset on a bit of wire, and you had to wait 6 months to get that and it…it… it really didn't mean anything to me, but did… did the guys in… in academia see what was coming down the road?

[00:43:35]

I think… I think there were some people in the computer science field there that… I'm not even sure, you would have to tell me, Tom, computer science is a rel…relatively young field but… but people like Howard Zachman, er, that, er, were writing about the public information utility back in the 1960s. The idea that…that there would be—you know that it would be a utility like electricity or whatever and that—But… but there were these visions, even diagrams of erm, a home where there is a—in the basement of a home, in the cellar of the home would be the…the central heater and then a…a big computer [laughs] and that that would be the… that would be how you would… how you would get access and the idea that the—an individual today has 3 or 4 devices on them, er, when they're walking around was not… was not envisaged by hardly anyone. But… but even that, the idea that every household having a computer was viewed as total blue-sky thinking and er, ridiculous. But that cable—you know, that began—that was ex—videotex and interactive cable got about as close to that as being realised and then… you know, of course, then the personal computer er, being available then as well, and with local bulletin boards, er, people began to think of the individual having computing power at their fingertips and er, and other communication facilities more accessible from the household. Having more choice, having more control, having been able to create content actually, not just view it.

[00:45:27]

Yeah.

[00:45:28]

So, yeah, those were really exciting times and—But the Annenberg School was viewed as—and that was in the 1980s, early '80s, the Annenberg School was viewed as sort of a…a… er, maybe too far ahead of itself, you know, what are they doing focusing on new media, this is not going to happen? And er, it turned out I think the Annenberg School was very much on the forefront of what happened. But they… you know, you get punished if you're in the…a pioneer.

[00:45:58]

Yes.

[00:46:01]

So, er, and they… they often did take a lot of ridicule for…for… er, being too enthusiastic about new technology.

[00:46:13]

So, just going back to your progress for a moment. You…you came to the UK in the erm, the mid-80s, didn't you—you were a Fulbright Scholar at that time?

[00:46:23]

Yes, yes, erm—

[00:46:25]

Wh…what did you come to do?

[00:46:26]

The, erm, I was, erm, er, I was working on—Before I went to the UK, I…I worked with, er, Dave Blumer at, er, he was at Leeds, and I worked with others on, a…a study—a comparative study of interactive cable television, er, what were wired city projects in the US and er, France, er, Britain, er, Japan, elsewhere. So, we…we were travelling around the world looking at these sort of early experiments with interactive

cable television. And we were interested in how different countries were doing this differently and that, er, some of the common visions of this convergence of comm… of… of information technology and…and…and media, um, and how that was evolving. So, I—that got me involved in—er, we visited Milton Keynes. Milton Keynes was one of the first cable cities in the UK and so we went there and met, er, David Fernberg, who you may have known, but anyway, he was the—he sort of directed that project and, um—So, we… so, I became a…a little, you know, engaged with a number of academics in the UK about wired cities and the future of communication and information technology. And so, I took a…a Fulbright Scholarship at Brunel and where they were, er, developing a proposal to be part of the, er, er, programme on information and communication technology, which I… which I directed over its last years after---

[00:48:15]
Yeah.

[00:48:15]
But I met people, as a Fulbright Scholar, I met other academics interested in this area in Britain.

[00:48:22]
So, at that time, this…this business of the wired city based on cable television, that…that was like the… erm, the alternative to the internet, was it, yeah? That was the wide… wider bandwidth connection from the home to some central information source, is that right?

[00:48:43]
Yes. And that was, erm, you know, bandwidth was always an issue of—I mean, er, the speed or bandwidth was—people didn't think that bandwidth would be that plentiful… as plentiful as it is today and, er, the idea of broadband in that early '80s was…was not. So…so, people thought it had to be something with satellite or cable or something because people were mainly interested in television.

[00:49:10]

Yeah.

[00:49:11]

Not in… in reading and/or, er, text and er, er, yeah, that was part of it. But the, er, but that was—I mean while… I mean while you mention it, I think that the UK was, uh, experimenting with some of the same things but I think there was more technological scepticism in the UK than in the US—there was much more of a…a… optimism about technology I think in the US culture than there is in the UK, and—But in the… on the flipside, also, in the UK there is much more of a sense of interest in the social implications of technology. So, think about broadcasting and…and this debate over the BBC and, or over public service broadcasting, and the same with cable television in the UK, there is much more of a receptivity to discussion about these technologies are not just sort of technical advances, they actually have—may have real implications for society in terms what you can view, the choice of viewers, the…the social divides that might exist in society and… and their implications globally. So, the UK was a very good place to study the social implications and I knew…I could see that from the early '80s on that the UK was far more of a…of a receptive climate or a nurturing climate for talking about what difference will these technologies make for people? And that… and that there is sort of a m…more multidisciplinary-- and they…they founded the prog… programme on information and communication technologies in the early '80s, you know 80—I think it was '83 or '84 that the programme on information and communication technologies was supported by the ESRC.

[00:51:18]
Yeah.

[00:51:20]

And erm, and I think that was one of the most major early programmes to study in a multidisciplinary way, the social impacts of what, we then—actually retitled the information and communication technology.

[00:51:33]
Yeah.

[00:51:34]

We thought information technology didn't quite capture it because the technology was used more and more for communications as well as a…access to information.

[00:51:46]

So, if I can kind of fast-forward to, erm, the… the Oxford Internet Institute, erm, that… that came into being in, er, 2001, I think, is that right?

[00:52:02]

Yes, yes. It was founded in… in May of 2001, that was its… that's when it was—sort of people signed on the dotted line.

[00:52:11]

So, if…if…if I can ask the first dumb question, I…I note it's called the Oxford Internet Institute, it's not the World Wide Web Institute. I mean, is…is—I…I remember in the early days, all of this, people drawing a…a clear distinction between the web and the internet and being quite pedantic about it but erm, it's…it's all wrapped up in the term internet, is it, in, erm, in these days?

[00:52:44]

Well, I think that…the…the—how people define the internet and how narrowly or broadly will be an eternal debate I think. And er, er, I've always defined it as broadly as possible and er, because I think—I mean, I'm not interested in…in just simply looking at a, er, an internet protocol as—I mean, I'm interested in the ability. The internet was really a way of networking, of n… networking computers and therefore networking people and… and, um… and I thought—and I think that everything is going to increasingly network in the future and therefore, the internet is probably the broadest way of thinking about this revolution. And… and the web, of course, is a way of facilitating, er, the sharing of documents online and on the internet and so, I think it is an aspect of the internet, just like social media are—

[00:53:48]

It's a subset?

[00:53:49]

So, I just… I use the internet broadly to—but you know, we al…we almost launched a world… a…a…a world… a web institute within the OII.

[00:53:59]

Oh, right.

[00:54:01]

But there was a change of government and we lost—we literally—we had, er, we were going to work with Tim Berners-Lee and others and, er, and have an institute within our institute—affiliated with our institute that was more focused on the web and they were interested in the open… open, er, er, open web kind of…er, documents and the, er—And I think a change of government put the kibosh to that. But the—but it was, er—you know, I…I think, er, I worry about it less than others. I mean, erm, at Balliol, there was… there was a room that was called the, er… let's see, what was it, oh, gee—anyway, let's call it the, er, Fellows… Fellows Dining Room.

[00:54:54]

Yeah.

[00:54:54]

The… the Fellow… the Fellows room, and… and er, there was another room that was, er, next to it and it was called the Fellows Room and I said, well, you know, both, which is the Fellows Room, these both are called? Yeah, they're both called [laughs] The Fellows Room—and I realised that… that at Oxford, actually, people are not worried about—In the US, people l…l…layout, you know, stay up late at night, trying to get… make it… sort this out so that it is distinct and like a—it doesn't make—I…I think the… the OII was a stroke of genius in terms of keeping that broad. But people are always—I continually get, erm, pushback from people who want to more narrowly define it.

[00:55:43]

Yeah.

[00:55:44]

And so—and…and it comes up again now, with, erm, artificial intelligence, like, this is the f… well, artificial intelligence has been talked about since the early '70s.

[00:55:55]

Yeah.

[00:55:56]

Or algorithms. Well, algorithms are just computer code, and that's—so, the internet subsumes all of these issues.

[00:56:04]

That's got my piece of pedantic… pedantry out of the way.

[00:56:10]

Well, I think that—do you… do you agree? I mean, I think the web is a narrower concept er than the internet and er—

[00:56:18]

Yeah, yeah, I…I think, erm, er, I…I… I'm just interested in, um, er, I… I guess it—I was struck by the first time I had this conversation with somebody in the, um, in… in the '90s and I…I…I didn't really understand the distinction and it was explained to me, you know, painfully slowly [laughs], and I kind of thought… you know, is there a practical significance is this? But erm, anyway, s…sorry that is probably a distraction from--

[00:56:51]

There are different people… I mean there are different sociologies and networks and different technology… different specific technologies that are the centre of attention.

[00:57:01]

So…so, I mean, in… in practical terms, if we…if we look at when… when this was founded. I mean p…people, the general public have been fiddling about with the

*internet on their dial-up modems and, er—since the sort of first third of the '90s.
Erm, and then, erm, and then in 2001, the need for the, erm, er, Oxford Internet
Institute was…was recognised and it was established. I suppose based on the
experience of, you know, 5 or 7 years or something, of people seeing what impacts the
internet was having on our lives, was it?*

[00:57:50]

I… I'm not… yeah, I'm not sure, uh, I mean, it's a good point; what…what was the
factor? I think it was… I think it was more top-down-led because I think we had—
there were a number of people in Britain, um, within parliament and within, er, the…
the university that—that actually said, "Why isn't Oxford doing something in this
area, this is a… this is a critical area?" Um, it is a big technology and… and—by the
way, Oxford does—was a greenfield in this area and it remained a greenfield—that…
by that, I mean there was no communication department, you know media
department, no information studies school, erm, er, they did not regard these as…as…
as you know, serious… serious disciplines at that time. And er, so, an internet
department might even be more far-fetched for Oxford to do, but er, Derek Wyatt and
other parliamentarians started coming to Oxford and saying "What are—you know
this is… this is a big deal coming through and…and Oxford should be doing
something serious in this area. And erm, and some of the Balliol Col—Andrew
Graham, the… the… he was then the acting master at… at Balliol, he became
interested in it and he became interested in it and he had done a sabbatical at, er,
Harvard's info… er, er, information super—er, information infrastructure project. Er,
so, he had sort of gotten exposed to people working on internet-related research in…
at Harvard and so he thought—I think he was receptive to this idea of some…
something around the internet being done at Oxford, and… and er, With people from
parliament coming there and then the theme. They put together a network of… of
college, um, er, masters and, er, and head of college and academics in the area who,
er, pulled together ideas for this.

And then they were able to find funding from Dame Stephanie Shirley, who was, er,
you know, er, part of the IT livery company and is—well, later became—was a
pioneering woman in… in… in women in computing and—worldwide, but certainly
in the UK. And… and she was—she offered to help initially fund a new department if

it… if it got support from government, erm. So, there was the—it took years, I mean, literally the first—during the time I was director of the OII, there probably was not a… a week or a month that passed that somebody didn't come to me and say, I was part of the founding of the OII. Because there were a lot of people who… who got very much involved in trying to get Oxford to do… to launch a…a new initiative in this area and the OII was it, and erm, so, it was—

[01:01:07]

It…it was quite far-sighted, wasn't it, in…in…in the sense that—I…I don't really remember, around the turn of the century, people talking that much about the social impact of the internet, it was, erm, you know, it was mainly the dotcom boom, and, um, cra…crazy ideas for, um, you know, internet-based businesses. Erm, I… a…a lot of stuff has happened since then that kind of justifies the… the vision of the Oxford Internet Institute.

[01:01:44]

Well, I think, yeah, th…there's no ques… nobody would doubt it now, I think, I mean, yes, unquestionably, er, in 2021, people realise that the internet—is, it makes a huge difference to society and that, er, er, in…in so many ways and we could talk about that. But, at that time, you're right, it was very different. I kept trying—I was always working with the Annenberg so, I kept trying to get the Annenberg School to set up an institute where we could do surveys and track internet use and, er, and look at the societal implications of this and they would say, oh, you know, this is—talk to the Dean of Engineering, he's got a new initiative going about with multimedia or whatever. So, they… they didn't think that the social implications of the internet were going to be significant either. But then when I, you know, the OII, er, er, launched this project and I had nothing to do with the founding of this, but er, but we certainly did talk about the social implications with the PICT programme that preceded it and… and when asked to interview, it was, erm, er, at first, I couldn't do it because of my—the schooling and my children. But… but when…when they graduated and I could do this, it was a gift because I… this is what I was trying to do, I was trying to put together a dep… a, um, a…a… centre or a unit that would look at the societal implications of the internet. And the OII, not only is it a great name but it was also the—a department that was anchored in the social sciences division of the

university. Not in engineering or computer science and, er, that made it distinctive as well because, um, it was, er, I think it was the only major department at a… at a major university that was not, you know, that… that was anchored in…in the social sciences that focused on the internet. And even c…schools of communication and media studies were not looking at the internet at that time so, it was—

[01:04:01]
So, how… how did you find each other, you and the OII?

[01:04:03]
Sorry, how did I what?

[01:04:06]
How did you find each other? I mean, um, er, th… you know, it was an inspired choice obviously, to get you to go and do the job because that's what… that's what you were interested in, but I mean, erm, how…how did, you know, the two of you come together?

[01:04:23]
Well, I think, er, to be fair, Tom, at that time, there were very few people doing the research that I was interested in, and er, h…having the interest that I had, there are far more now. But I think with the Fulbright… the Fulbright that I did at Brunel University introduced me to a lot of the people that… that ended up recruiting me for the PICT Programme, to direct the PICT programme. And I think my experience and success in…in final… finishing the final years of the PICT Programme, and… and write… we… I wrote those up as a synthesis in…in a book called "Society on the Line." And erm, I think that put me on the radar screen of people who were interested in the…soc…social aspects of the internet, and—

[01:05:13]
Yeah.

[01:05:13]

And I don't… I don't know who else… who else they spoke to but, erm, but I think what, erm, I think they were interested in me because when I interviewed, I…I…I clearly knew what they should do [laughs] and I think there was, erm, as you say, there is no…there has never been a department like this and I think there was, er, a lot of people were not clear about what… want to what I would do. What is this department and what…what will it do? And… and I had an agenda for research that would be significant and…and er, I think they thought, oh, okay, yeah, I…we… that's…that's something we should be doing and made sense to them.

[01:06:04]
So, what…what was it like at that time? I mean, I…I'm just looking at the timeline of the erm, er, OII, erm, which you're probably familiar with from that—well, you're bound to be familiar with it, aren't you?   But, you know, I mean, erm, er, 2002, Professor William Dutton appointed. Er, and then there is a whole stream of things that happened in the next 10 years, like Skype, er, Facebook, YouTube, erm, Twitter, iPhone, erm, Pinterest, and Instagram. I…I mean, it must have been, you know, a… terribly exciting time, you know with this…all evolving in… in front of your, erm, eyes and giving you, you know, a kind of a… fulfilling your purpose in the OII.

[01:07:01]
Yeah. Really, to see this unfold it was… was fulfil… I mean, it was just amazing. And it became a—you know, we're at Oxford, and it's one of the…the best universities in the world and…and then the internet is clearly the new thing and… and it was a… and we had a social agenda that was unusual worldwide, and…and so, we had er, faculty—er, esteemed professors, some of the best students in the world who were dying to go…come be there. And so…so, it was just, uh, we just had an embarrassing position of being able to, uh, bring in visiting faculty and visiting researchers who were abs… absolutely outstanding from the day I start… landed almost, I was able to, er, bring on visitors. Er, people like Ted Nelson, who was the…er, invented the concept of hypertext, and, um, er, and economist, Paul David, at Stanford, er, spent a year or two with us. And er, er, Richard Rose, a…a political scientist help…helped put together the Oxford Internet Surveys. And, we had really top people who just—I think there was really a great interest in this area but there was no real centrepiece for it, that the OII provided.

[01:08:35]

Yeah.

[01:08:37]

But your…but your right, at the—I must say, that when I first got there, er, in 2002, er, some of my colleagues in social sciences in the UK said, "Bill, what are you going to do in a couple of years when the internet is no longer, it's…you know, it's like CB radio, or it'll be—it's a fad?" and you know, well, I said, I think I'll be right here because [laughs] everything is going to be more and more networked forever. And the, er, and of course, they didn't even—I even had the… the first year, so, I was there, I was, er—er, the US was pretty much moving most people to broadband before the UK. But, in…in…in Britain, I had a hard time getting people to say, "No, we need to have broadband" and…and, well, do I need it? I can get, you know, in my email, on my desktop computer, through my telephone modem and…and—It was like you said, what are we going to use this for—what… what would I need anything beyond what I have for and erm, and I guess that's--- I think that lesson goes today too, 'cause we cannot imagine what we'll be using the technology for in the next 10 years.

[01:09:59]

Yeah, I…I was going to ask you that, where do we go from here, yeah?

[01:10:04]

Yeah. Well, I…I think, er we don't know, wh… but I…I think we'll be equally surprised that um, that the, er—I mean, the thing is, things that you think will happen, just don't necessarily happen. Everyone thought things would organise around the television set, you know, that…that's what people want to do and so, the…the internet would never work because—that's why videotex was perceived to be, er, the most likely development because it was—it would use the television set. But it competed with television, it didn't… you know, so, it…so, it really didn't have that. And it was not used for…for viewing, it was used…used for interpersonal communication. So, mainly newspapers invested in it and not in the UK, but in elsewhere they did and they…they weren't in the interpersonal communication business, so. But anyway, the, um, um—I think people, um, thought television was…was, you know, anything

that would use the television would succeed, now, everything that uses the internet will succeed.

But of course, tele--what is the most successful thing on the internet today, is… are the screening video and…and access to television worldwide. So, the verdict is still not out—you know, the judgement is still not out in terms of how the future will evolve and—

[01:11:41]
Yeah.

[01:11:42]
You know, there is a scenario in which, er, this idea of us creating information and using search in powerful ways and being able to source our own information and…and communicating to the world at any time of any day, er, from anywhere, could evolve into just us being viewers of, entertainment, er, at…at the push of a button, but…but not really being content creators and…and er, the source of information. So, and I think that's a real negative prospect, but, uh, but a…but a prospect.

[01:12:21]
So, this is…this is probably an impossible question, but erm, you know, I…I…I just wonder how the internet revolution stacks up with previous revolutions in communications, you know, like, erm, the…the printed book, erm, radio, or tele…telegraph, and…and telephone, then radio, then TV, mobile phones. I… I mean, the…the internet on the face of it, you know has, you know, outweighed all of those, erm, small steps that we've made before or…or is that not really true in terms of its impact on society?

[01:13:07]
I…I think its impact will be as significant and…and…and also not necessarily, you know, in different kinds of impacts, like, the Fifth Estate, I think, that…that I mentioned before is…is…is something…is something that would probably not exist without the internet. But that doesn't mean that people could not witness developments and record things with photographs and so forth. Erm, and…and on

the…just as the…you know, I think it's equivalent to the printing press, to the…er, the telegraph, and so forth. But again, I'm…I'm very happy to talk about this as an evolution, you know of—the…that…that it's all been an evolution of the telegraph in terms of electronic communications and, erm—But…but it's…it's an evolution that is…is you know, qualitatively different, and…and the abil…you know, the telegraph, is a little bit limiting compared to that [laughs] to, er, to the internet in terms of ability for us to, er, Zoom call with anybody in the world, you know, pretty much freely. [unclear 01:14:22]. Things that…things that you couldn't imagine doing.

But there are some elements of this, the, er, that are very similar to, you know, er, to literacy, to the telegraph, to the book, to—I don't know, and to the printing press. And in a way that the internet is all of those things, it can emulate all of these capabilities.

[01:14:50]
Is it generally a force for good do you think?

[01:14:52]
Yes, definitely, definitely. But I think, erm, you know I think we're in a major period of demonising the internet in terms of misinformation and…and harms that can be done online.   But, er, but then the pandemic happened and, er, we find that the internet is almost a lifeline for…for societies around the world, for the…communities are able to stay at home and, er, households can isolate and yet, connect with the world and continue with their work and schooling and the…the ability—So, I think p…the pandemic has, in a strange way, has—maybe in the…in the future we'll look back at the pandemic and say, yeah, the internet actually is not as bad as the demon, er, the demonisation of it would portray it. There are problems, but I think that… and I think the biggest problem is that we will overreact to those problems and…and undermine the…the, er, the power of the internet and…er, to enable individuals to…to erm, er, access information that…that they need, just like, you know, it's just like—they were afraid of books for a while and er, there were concerns of people getting access to books that would be, er, harmful to society and, um, and I think we're—You know, we're…we're still early on in this, as you say, how fast things have moving…are moving. And so, we really are in a very early period of time in

terms of developing the norms of how people should use certain things and how—the rules that people should use to regulate their own behaviour online and the behaviour of their friends and teach their children, erm.

[01:16:57]
And…and are those the issues that are exercising your, erm, you know, your academic mind at…at this time; you know, are those the…the things that are talked about in the OII and, erm, you know, looking at the future?

[01:17:14]
Well, I guess, I don't know—the OII, a lot of the work I'm seeing now is…is really focused on some of the er, societal risks that are…are developing around AI and, er, er, the bias—potential biases of algorithms and, er, inequalities in society that, er, lack of access to…to these technologies. But…so, erm, so, I think the… the OII is…is…is rightly, you know, taking issue with…with an uncritical view about the internet. But I… but I…but also, I think, you know, we have to be critical of negative views, about, I mean, we can't take negative views about the internet for granted, there, you know, there is not, um, um, so, I, er, for example, a lot of my research more recently, has questioned this notion of disinformation as being a really a technologically deterministic view.

[01:18:18]
Yeah.

[01:18:18]
It doesn't stand up to empirical research. And I think more and more, er, people are realising that that's true, they just—they just hadn't done research around these issues. They had taken the idea of an echo chamber or a filter bubble, sounds good, it's intuitively appealing, and er, but it doesn't, er, it doesn't square with the people—the way people actually use…use the internet. So, I think, erm, you know that…the…the job of social science is not to give a positive or a negative perspective on…on the technology but to question conventional wisdom and…and you know, to critic…not, you know, challenge conventional wisdom and…and with empirical research and thoughtful analysis so that, erm—so, that—you know we bou…otherwise we just

bounce back from these utopian and dystopian views about technology. Erm, but I think we…we're still…we're still sort of in a dystopian era about technology and—

My current work is…is…is around cybersecurity and I'm working with some colleagues—it's a new topic. I'm still working on the Fifth Estate, that's my…my pet project. But the, er, but cybersecurity is—that is where I think, if we can't solve some of the issues with security, then this really threatens the…the vitality of the internet going forward, erm.

[01:19:54]
Are those technical issues or behavioural or, erm?

[01:19:59]
Well, they're, er, what I like about the project I'm involved with at the, er, this global centre for cybersecurity capacity building is, is the idea that we have to think of this as a really multifaceted issue—security, it's, you know, technical issues in terms of having technology that is more secure but it's also having legal—the laws in place, that…that correct…correctly and appropriately regulate issues such as privacy and— But also, erm, social and cultural, er, like in some—I've been writing about what I call a cybersecurity mindset. Erm, I use Oxford in that regard, I…I…I talk about, er, everybody that l…lives in Oxford usually rides a bike and they, er, they have a…s…security mindset, there because everywhere they go, when they buy a bike, they buy a lock, and when they…they go to the…they ride it anywhere, they lock their bike. They lock it in a visible place, they often buy a used bike, so, that nobody steals their brand-new bike. They have always…that is just an ingrained routine part about the security of their bicycle. And why can't we have a…a sort of a cybersecurity mindset, where we just…we don't have to think about it, it's just routinely, we…we do things like use multifactor authentication, good…good passwords and so forth, erm, as a matter of routine without…without even thinking about it.

But again, it's a technical issue too 'cause people have to design systems that are easy for people to use securely. They can't…you can't have 50 passwords that you change every month and—

[01:21:52]

Well, look, this…this is such a big subject, isn't it, I'm sure we've been talking forever and erm, and you've given us lots of your time already, and thank you very much for that. I think it's absolutely fascinating to, erm, er, talk to somebody who, erm, brings together, er, those social and behavioural, human factors together with the, er, technology that, erm, we tend to focus on normally. You know, I think, um, the OII, is…is a triumph in terms of, you know, bringing, er, a…a different view to, er, the internet and one that, um, you know is clearly absolutely vital. So, erm, is…is there anything I should have asked you about that I…that I haven't, have we missed any big topics here?

[01:22:46]

Er, no, I…I…I really enjoyed speaking with you and I just really appreciate the fact that um, that you, I mean, you've…you've captured what I think is really the important aspect of the OII in this…in the importance of looking at the societal implications of technology and IT and, erm, you know, it made my day there in terms of, er, er, having that kind of—I mean, that is the triumph, is…is that, er, people are thinking more seriously and we have a true…er, a record of research and we know how to do research on the societal implications of the internet and related media. And…and I think the OII had a real major contribution in making that, you know, creating that base of research.

[01:23:34]

Thank you very much for telling us about it.

[01:23:36]

Okay, thank you very much, Tom.