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**Inside the Coffeehouse | Episode 6**

Dr. David Bray, Distinguished Chair of the Accelerator & CEO/Principal, Stimson Center & LDA Ventures, Inc.

**We continue our *Inside the Coffeehouse* series this week with Dr. David Bray, Distinguished Chair of the Accelerator & CEO/Principal at the Stimson Center & LDA Ventures, Inc. David Greely sits down with Dr. Bray to discuss how technology is shaping how we relate to each other today – and how we can learn from the lessons of the past to put our technology to work to empower individuals, rebuild trust, and promote a freer and more peaceful society.**

**Dr. David Bray** (00s):

How can we invest in things that empower individuals to still be free going forward. And that's things we can have here at home, but let's face it, there are several nations, other nations as well that are going to need these technologies as well. Let's become a nation that exports technologies that allow us to coexist and have differences of opinion.

**Announcer** (20s):

Welcome to SmarterMarkets, a weekly podcast featuring the icons and entrepreneurs of technology, commodities, and finance ranting on the inadequacies of our systems and riffing on ideas for how to solve them. Together we examine the questions: are we facing a crisis of information or a crisis of trust, and will building Smarter Markets be the antidote?

This episode is brought to you in part by Abaxx Exchange, where trading in centrally cleared, physically deliverable LNG and Carbon futures contracts is now underway, ready for smarter markets.

**David Greely** (01m 02s):

Welcome back to Inside the Coffeehouse on SmarterMarkets. I am Dave Greely, Chief Economist at Abaxx Technologies. In this podcast series, we are introducing you to Coffeehouse, SmarterMarkets' new social media platform for advancing the conversation on climate energy markets and technology. It's a space where the executives and icons you listen to on our podcast can engage with each other in thoughtful conversations, disagree without being disagreeable, and discuss how our market systems can be redesigned and improved to address the most important challenges of our time, including climate change and the energy transition. That feeling of grabbing a cup of coffee with colleagues to catch up on the important issues is what we're creating on this platform and our SmarterMarkets Members are invited to follow the conversation. If you would like to learn more about Smarter Markets Coffee House or join our wait list, visit Coffeehouse at [www.smartermarkets.media](http://www.smartermarkets.media).

**David Greely** (01m 57s):

Building new markets begins with the exchange of ideas. Many of today's great exchanges were born in coffee houses, including the New York and London Stock Exchanges. At SmarterMarkets, we are building our virtual coffeehouse to facilitate the exchange of ideas that will lead to the smarter markets of tomorrow. Our guest today is Dr. David Bray, distinguished Chair of the Accelerator and CEO and Principal at the Stimson Center and LDA Ventures Incorporated. We will be discussing how our technology is shaping how we relate to each other today, and how we can learn from the lessons of the past to put our technology to work to empower individuals, rebuild, trust and promote a freer and more peaceful society. Hello David. Welcome to SmarterMarkets.

**Dr. David Bray** (02m 39s):

Great to be here with you Dave. Look forward to the conversation.

**David Greely** (02m 42s):

Yeah it's great to have you here. I have really been looking forward to talking with you in part because on this podcast we talk about how to build smarter markets and by that we mean markets that are empowered by better infrastructure and technology to meet the biggest challenges that we all face together and you have done a lot of thinking and work on one of the biggest challenges. How do we use technology to empower individuals to create a more peaceful and freer society and I thought it would be good if we could just take a step back and start with how we got here. I am old, I remember when technology was supposed to be the answer. Often it is often it

seems to be the problem. You know, in the 1990s the hope was the internet would empower individuals, make us more united, make the world more peaceful, more democratic, more free. So David, what happened?

**Dr. David Bray** (03m 34s):

Funny thing happened on the way to becoming more free and more collaborative as a society. So I guess I would say if we were to replay what happened, probably historians 20 or 30 years from now will say if we look back from 1970s to our present, the United States and other western societies really succeeded in making technologies that were only available to the CIA and the KGB back in 1970s available to everybody. I tell people, if you have a smartphone, which most of us do nowadays, it has the ability to call anybody at a moment's notice around the world. If you have their phone number, it has geolocation. And if you download the right commercial apps, you can actually download satellite footage that is recent as 15 minutes ago. That's accurate to 0.25 meter resolution, which I guarantee you President Carter, president Reagan, president Bush 41 and 43 as well as President Clinton would've loved to have had your smartphone as part of their command and the control center at the White House.

**Dr. David Bray** (04m 29s):

And to make things even more challenging is the good news is we are making these capabilities the next 1 billion people on the planet that will get a smartphone that don't have one, they will get it for less than hundred bucks and so we are super empowering people to do what the CIA to KGB could do and that can be a huge market mover in terms of now we have the ability for you to actually navigate using GPS, which we didn't have. You have the ability to actually use apps for ordering deliveries and things like that. There is huge value, but it also creates interesting strains, especially for free societies because now it is worth knowing. In the 1980s, the KGB was very intentional about doing a campaign that claimed that somehow the CIA had created HIV in a lab, they were targeting certain minority groups and they were successful on that, that conspiracy theory sort of catching fire and spreading around the planet. It wasn't until after the Cold War ended, or at least we thought the Cold War was over, that Gorbachev actually admitted he said, yes, the KGB did that, but it took the resources of the entire KGB to do that and nowadays of course, people can go on and they can have less than authentic information and post it online and do so using bots. And so we have to figure out how do we upgrade free societies when we have super empowered people with these capabilities

**David Greely** (05m 41s):

And pausing on that super empowerment and some of the uses we are putting it towards what do you think makes us so vulnerable to disinformation and conspiracies? Why is it so easy to make us angry and divided?

**Dr. David Bray** (05m 56s):

So the first thing I would say is a lot of things that we think are facts are actually beliefs. Like for example, the idea that the sun's gonna rise tomorrow, reasonable to assume, but at the same time, that's a belief we won't know till tomorrow. Hopefully it will rise tomorrow. But things can happen. So the first thing I would say is we have to sort of recognize that we operate in a society where a lot of the underpinnings are actually shared beliefs as shared commons and that's what makes the United States so great is we do allow differences of opinion and that's okay. We coexist. I mean our whole origin story were people that were being required to think a certain way and being subjugated or not tolerated and they came here to actually think differently and we were okay with that. Then when you layer on top of that, the fact that it is now easier to create less than authentic information and spread it, part of it's a challenge is again, the CIA still employs more than 15,000 analysts that take two to three weeks to research a topic using different exquisite means and then create a briefing for the president's daily brief.

**Dr. David Bray** (06m 55s):

And even then they have confidence intervals and they sometimes get things wrong. Most of us don't have an army of 15,000 analysts in two to three weeks to make sense of what we see online and so part of it's just information overload. The other thing though is there's a lot of research that shows we want to buy into certain narratives that signal our tribal identity and it's the idea that if anything I'm taking some of the cognitive load of trying to triangulate what is or isn't true or what is something I can rely on. And I'm just simply saying, if you and I share the same beliefs about the world in general, then I'll go into this. I want to be like you and that's kind of a survival mechanism. So I think it really is just this is what it means to be human. The question is how do we upgrade it so that individuals have the tools for themselves to not just try and assess authentic versus inauthentic information rapidly, but to also triangulate because that's gonna be the only way we get through this is we empower individuals to decide for themselves as opposed to either governments being the arbitrary of truth or single companies being the arbitraries of truth. I mean that's a pass to autocracies of thought that rapidly become autocracies in reality.

**David Greely** (07m 59s):

You are making me think of Steve Jobs's aspiration that he wanted to build the bicycle for the mind and are we riding the bicyclers, the bicycle riding us at this point?

**Dr. David Bray** (08m 09s):

So what you hit to nail the head on is we have been rolling out technology without a full understanding of the strengths and weaknesses of humans. If anything, what we have rolled out is actually playing into your attention reflex, you know, all the dings and the notifications. I am just like, oh, I have got 61 unread things. I must read them now or I am getting likes and so we have hijacked that dopamine response of you must pay attention in the immediate, but what we haven't paused is recognizing again there it's fast thinking. You are slow thinking. We know that if you label something as coming from a group that you identify with, you're more likely to confirm it and want to believe it if it's the same information, but it comes from a group that you disagree with or don't identify with, you are less likely to believe it and so this is problematic because let's go back to the Turing test.

**Dr. David Bray** (08m 58s):

Alan Turing, he had this idea that could we create a machine that would successfully convince a human that it was human and so by very definition, the Turing test is trying to deceive you. It is a machine trying to deceive you that it's human and so now we have AI, but before that we had bot and I tell people, AI does not stand for artificial intelligence. It stands for alien interactions because it's not human, it's not really thinking like us, it's trying to look like it's human. It's trying to create either text or images or video or sound that looks like it came from a human. But I do wonder if the Turing test, which we have now been wildly successful in, was in fact the wrong test because it's about deception when what I really would like to do is how can technology one hold up a merit to ourselves and say, candidly, here is your strengths, here is your weaknesses.

**Dr. David Bray** (09m 47s):

Or did you know your last 10 hiring decisions at your company you are kind of leaning this way. Or I mean we know sadly, if people have less Western names for the same exact resume, they're less likely to be hired. You are three times more likely to be hired if you have a Western name on your resume than if you don't. Which is not fair, that's not right and so could it hope meritorious to ourselves and then two, okay, once we have seen what our strengths are and our weaknesses are candidly then could it try to help and say, okay, I want to help amplify my strengths, I want to be better at that and at the same time also overcome and mitigate some of my weaknesses and this technology could work at the individual level, it could work at the group level, it could work at the teams level, at the organizational level, at the society level but how can technology help us be better humans as opposed to the Turing test, which sadly is trying to deceive us.

**David Greely** (10m 38s):

It sounds a little bit like we all get very used to the biofeedback that our Apple watches and things can give us. We need a little bit of a mental feedback too. But you know, human nature is a notoriously stubborn thing. One thing we humans have done is to try to make institutions that safeguard us from some of our worst inclinations. So I wanted to ask you now, how do we upgrade our institutions to keep up with this evolving digital reality?

**Dr. David Bray** (11m 02s):

Great question and I like to remind people when the country was founded, what I will call packet latency, the time it took to send some information was generally four or five days on horseback between New York City and Washington DC And so you could have deliberations because communication was low and it wasn't until first the telegraph and then the telephone, and then it goes radio and television. And now the internet that we're expecting decisions to be made in some cases within hours, other cases within minutes and some cases and even subsecond and so this demand for doing something at speed is something that we have not designed our institutions to deal with and we're surprised when things don't go well. And I will give three small examples and that that sort of eliminate the way forward, which was in 2001, I was part of what was called the Bio Chairs and Preparedness Response program.

**Dr. David Bray** (11m 54s):

And I was supposed to brief to San FBI, it was scheduled weeks in advance as to what we would do technology-wise should a bad day happen. That briefing just happened to be scheduled for September 11<sup>th</sup>, 2001 at 9 o'clock in the morning, 8:34 world changes. Briefing is postponed. We deal with the response to 9/11 sand down from hell on October 1<sup>st</sup>, October 3<sup>rd</sup> is when I briefed the CIA point out the first case of Anthrax show up 24 hours later in Florida. Later there were the events both in DC and New York and I raised that because there were plenty of conspiracy theories, both about 9/11 and the Anthrax events that somehow this was false flag. We had done this to

ourselves, but the information infrastructure wasn't there to really let the conspiracy theories catch hold. Alright, well fast forward now to 2009. I am on the ground in Afghanistan.

**Dr. David Bray** (12m 38s):

Sadly, there was an event in Western Afghanistan where the Taliban took a photo of a US fighter jet flying overhead, which was true, it was flying overhead, but it was just flying overhead and then sadly, they denoted a propane tank and claimed that there was a US airstrike that had killed innocent applicants and they put these images time stamped on social media. The US Department of Defense said, we are investigating, which is true, they were and unfortunately it took about four and a half weeks to figure out what happened because it was a mess and that by the time it was actually figured out what had really happened, the news bubble had moved on. Unfortunately, you know, popular press had been saying, this is awful, how could this be going on and our own ambassador had apologized and so I raised that because that was 2009, not even using generative AI for inauthentic information, it was just information outta the context to mislead you.

**Dr. David Bray** (13m 28s):

And then finally, another example I will give is in 2017 we have a shared friend, Michelle, she knows this, I was at the FCC Federal Communications Commission in a nonpartisan capacity and we had a high profile public commenting period and for listeners not familiar with what public commenting is, it dates back to 1946 where independent regulatory agencies before they make a decision, should ask the public for any legal concerns that they need to consider. Doesn't mean it's going to change their minds, doesn't mean they are not going to change what they are going to do, but when they finally make their decision, they have to address any legal concerns and say, here is our answer. It's not a vote, it's not an opinion test, it's not, it's not anything like that. Well, most government agencies get less than 10,000 comments over an entire 120 day period. Now we had asked if we could block bots using Captcha.

**Dr. David Bray** (14m 13s):

Unfortunately General Council said if someone can't see and can't hear, they won't be able to file. So that's a violation of Administrative Procedure Act. You can't use caption. Okay, could I use invisible methods or things like that? I said, no, that looks like surveillance can't do that either. I said, could I block obvious spam to find as a hundred comments a minute? They said one of those a hundred comments might be legitimate. So no, you can't do that either. So we ended up seeing 6,000, 7,000, 8,000 comments a minute at 4:00 am, 5:00 am, 6:00 am US Eastern Time and again, I get people are passionate about this topic, but given that less than 1% of government agencies get 10,000 comments over 120 days, and I am seeing about that in a period of two, two minutes, I don't need much more evidence to say it's not all real.

**Dr. David Bray** (14m 54s):

But anyway, the chairman's office said, is this a denial of service? I said, not at the network layer because the network's fine and the system has not been compromised, no data's been breached. But effectively given the rules of engagement, you are causing the application to get flooded. What I didn't know is there was a small pocket of both sides of the aisle because four years later in 2021, the New York Attorney General concluded up to 23 million comments we got and again, less than 1% of government agencies give 10,000 comments. Of the 23 million comments, 18,000,009 million came from one side of the aisle, 9 million came from the other side of the aisle that had manufactured them and that was 2017 and so I raised that because it seems like in each of those examples, it's easier for conspiracy theories to catch fire and for people unfortunately to make incorrect decisions based on the immediacy of the moment and it's also taking longer and longer to discern what really happened and so I think the question is how do we upgrade our institutions so that the public is willing to trust them even in the midst of trying to figure out what's really going on and we don't have all the information upfront.

**David Greely** (15m 57s):

And how do we do that because it seems like so much of this, it's designed to overwhelm our capacity to focus, our capacity to be deliberate, our capacity to make good judgements. It's things that we have seen before. In other cases it's like someone just shouting over everyone else so no one can else can have a conversation. It's lawyers burying you in paperwork so you can't mount a defense. Is there some way to make our institutions more resilient to this type of assault?

**Dr. David Bray** (16m 27s):

Great question and actually right before this conversation we were doing, I was actually talking to some spokes about this in the special operations context, US military forces, the challenge is, is because we are a free society, if our US military forces ever get pulled into a conflict, now is the case that adversaries could flood our own information space and claim they are doing things that they are



not. They are doing things that were like, oh, that's awful. How could it happen? Well, it might not be true, but if you erode the public support of our own military, that could undermine the very thing that makes us and so I think the first step is to step back and say, what do we mean by trust? I define trust. I have read many different sources. I use a definition which is trust is defined as the willingness to be vulnerable to the actions of an actor.

**Dr. David Bray** (17m 11s):

You cannot directly control and I think about, you know, how many cases do we interact either with organizations, with people, with governments, with militaries, whatever it might be even community organizations where we cannot directly control them and we have to decide if we are willing to be vulnerable to them or not. What the evidence shows is we are willing to be vulnerable, we are willing to trust if we perceive benevolence, we perceive competence and we perceive integrity. Now note I said perceive you could be benevolent, but if someone doesn't perceive you as such, then you've lost the race. Similarly, the reverse is true too and so I think the question is how can we upgrade the ability for individuals to rapidly discern whether or not you are behaving in a way that's benevolent, competent and with integrity and that's not just true for individuals, that's not just true for organizations.

**Dr. David Bray** (17m 58s):

That's true for AI and I right now say like look at large language models, benevolence, they're perky. You know, they are very friendly, but I don't know if they are benevolent competence. How many of us have asked GPTs, GPTs were not designed to be fact checking machines. They are very fancy pattern matching and yes, you can do rags and other things like that, but GPT by themselves are not fact checking but that means competence is gonna, and then finally, integrity. I mean I am sure many of us have asked the GPT a question before, it gives us something that we don't think is right and we say that's not right and it quickly flips And you may even say that that's not right and it quickly flips again. So I think if we approach that with a market driven mindset, like you said, Smarter Markets, how can we motivate companies, engineering teams, data scientists, to keep in mind that how can I make it so that a customer, a citizen, a community, can rapidly assess the benevolence competence and integrity of this activity? One, you are going to have better customers and more loyal customers, and two, we are going to have better societies as well.

**David Greely** (19m 02s):

And I want to dig into that piece a little bit more. But first, you know, you brought up the subject of AI and I wanted to ask is like many of these issues we are dealing with now have been simmering for a long time and you have gone back at least 20 years with these types of things starting to occur. Of course now we have these AI capabilities and I wanted to ask you, is this moment where we have achieved this level of capability, is that forcing us to address these long simmering issues now because they just can't be ignored?

**Dr. David Bray** (19m 34s):

Oh yeah, I think AI is a stalking horse for deeper organizational society issues. You know, I mean you look at any headline that says how do we know if AI is ethical? How do we know if AI is biased? How do we know if AI is making good decisions? Replace the word AI with organizations. How do we know if organizations are ethical? How do we know if organizations are biased? How do we know if organizations are making good decisions? And we have some mechanisms. I mean in theory when you put in place corporate oversight boards, that should be a check and balance over the rest of the organization but we know unfortunately there's also flaws as we pivot away from being both a shareholder and a stakeholder economy to being more in the almost only a shareholder economy. We are not thinking about the stakeholders, we are not thinking about the equity of the employees.

**Dr. David Bray** (20m 19s):

And so that's a bias. Another example, court decisions. We have citizen juries that are more than one person precisely as checks and balances to this decision making and so I think we can look to solutions the other thing that I want to say in your question while we are talking about AI, we have been here before with radio. When the radio came out in the 1920s, there were pundits, very vocal pundits that said, radio, it's the best thing in the world. World leaders will talk to each other on a daily basis. They will be sure understanding and we will have world peace. Then come to 1933, similar pundits were saying, oh no, the radios, the end of western civilization as we know it, it's going to be the dictator's propaganda machine represented societies, democratic societies will no longer exist going forward and here we are 90 years later and I would say neither massive world peace or maybe we will see doing good, but I don't think for the most part is responsible as a result of radio.

**Dr. David Bray** (21m 11s):

The same thing also happened when a printing press happened. When the printing press came out, there were actually pundits that said this is gonna be the end of society as we know it and in some respects it was up until then people could not read for themselves.

They had to be defended on what someone told them as a sermon or some liturgy and so it was a end of the world as we know it, but it actually empowered people and so any new technology, what I think is most people don't realize that not only does it change the art of the possible in terms of what you and I can do, it changes the art of the possible about how we co-exist together and I think the challenge, is we have been launching a whole lot of very interesting technologies, whether it's AI, smartphones, the internet itself, satellite imagery, but we have not thought about, okay, what does this really mean for how we upgrade civil society and recognizing that civil society nowadays because we have made these technologies available, is not just what government does. If anything, government is now increasingly less of the influence. It's in the decisions that markets and companies make that shape our lives.

**David Greely** (22m 11s):

And I want to go back to something you brought up before, which is trust because that seems like that's one of the fundamental hard problems at play here as we change the whole nature of the means by which we interact with one another. I really appreciate your definition and I want to repeat it because I think it bears repeating where you said you define trust as the willingness to be vulnerable to actors whose actions you cannot control and I think that's really worth spending some time thinking about and when I think about trust and the loss of trust that we have experienced in our digital communications, it reminds me of an old quote in a slightly different context, which was, you know, it's say the problem with losing the ability to know who to trust isn't that you believe nothing, it's that you are capable of believing anything. You know, it's not that you trust nothing. It's like you might trust who knows what. So my question is how do you think we go about rebuilding trust in our digital communications and because our digital communications have become such a large proportion of all of our communications and social interactions rebuild trust in our society at large.

**Dr. David Bray** (23m 22s):

So I am going to give you two paths and I am going to indicate that in my opinion, one of these paths is more appropriate for free societies. So there are some pundits and I am friends with vent surf who helped play a role in the creation of the internet and the TCP IP stack and he will point out that the early days of the internet with TCP IP, there was not a layer for identity and that was a plan that at a later date they would come back and figure it out. Well it's proven hard to figure out how do you put identities on the internet in a way that at the same time protects people from a surveillance state occurring. Because the very thing that authenticates that it's you or authenticate it's me, unfortunately makes it really easy for surveillance to be done either for government means or for corporate means we lose the ability to have consent about when that's done or not.

**Dr. David Bray** (24m 10s):

And then yes, there, there are efforts afoot. Maybe one day we will figure it out. But I would say right now, if anything, there are countries one that's 1.3, 1.4 billion people that have already rolled out their version of the internet in which everybody is surveilled. Everybody is known, not great, it's not consistent with what I consider to be a free society, but that's what they have chosen. I am going to give a different path which says what matters in free societies is the ability that you can be pseudo anonymous. You can actually be anonymous if you want to as well. Now maybe because you are anonymous, I am not going to, you are not going to get the fast lane on getting an airplane. You may not even get on an airplane at all if you don't give some identity. But if you give some identity, you can get an airplane. If you give even more information, you get into the TSA pre line.

**Dr. David Bray** (24m 51s):

But, but what's even more important is the provenance of data and what do I mean? I mean by that, where did it come from and who or what did it come from and in some respects identity a little bit into it, but it's focusing on the data versus who you are because that gets necessary because one, as we try to try and figure out what's more authentic versus an authentic, what do I want to believe versus what, what I don't want to believe. I mean that's what the intelligence community does is they pull information from different sources, they have different degrees of confidence in those sources and as a result they try to complete the whole picture and I think if we are going to gonna find any solution that allows individuals to do the same thing, we have to start with how do you know that that's really coming from a source that in general has been more right than wrong over the last three to four years?

**Dr. David Bray** (25m 36s):

Or is something that I'm willing to say they actually did some vetting and again, you may choose and say look, I am also going to include sources that I know are politically biased but they are part of my team and that's okay and that's fine. But if we can focus on the provenance of data that helps solve issues for corporations trying to figure out what are we going to do about this market or this supply chain that helps communities figure out which is, is this a reliable source of news about what's impacting us at the local level or the national level and finally it helps us deal with the fact that we are increasingly going to have synthetic information and machine

delivered information and how do I know that what this machine was trained on is anything that's reliable, let alone if the machine itself, whatever it's giving me is reliable to.

**David Greely** (26m 19s):

And so does it always come back to is trust always about the actors and the reputation?

**Dr. David Bray** (26m 25s):

It is the reputation of the source is what I would say or something like that. So part of the benevolence competence and integrity is the question of is this source of information competent? If somebody says, I am going to tell you the best way to do surgery. Oh by the way, I have never done surgery before. I don't have a medical degree and things like that, you are kinda like, you might be benevolent, you might have integrity, but I would rather have someone that's actually had some medical training. At the same time if you have someone that has had medical training but you are unclear about their integrity and in fact we have solutions to this, this actually happened a thousand years ago, give or take, when this disruptive technology occurred where people could now live and die in cities different from where they were born and so Europe and other continents around the world faced the problem of how do I know if you Dave, who just showed up in my city and you say you are a practicing doctor, lawyer or academic, how do I know if you have my best interest in mind?

**Dr. David Bray** (27m 22s):

And so the solution was these things called professional societies and what a professional society was is you would be credentialed if you had the knowledge of doing something. So you were, you knew how to do medicine or you knew how to do law, you knew how to teach a subject and you also had experience in it. So you know, as we know, and that's where I sometimes want to point out to people knowledge of something is not experience, you know, you have to do both and then finally you took an oath, could have been the Hippocratic Oath or something like that, but you took an oath to do the best interest of your customer or client and then if anything ever came up in the future, let's say somebody says you did something wrong. Well the reality is most of the public does not know how to assess if that really was or wasn't the right medical procedure or if that was or wasn't the right legal procedure.

**Dr. David Bray** (28m 03s):

And so your peers would evaluate you and if your peers found you had did wrong, then you would be censured or you know your license would be revoked or you they would actually say no, this is actually what was right and the public was willing to do this in so far that they saw that your peers still stood for the interest of the public. Now it's interesting to note a couple things. One, what the internet has done is it's kind of eroded this idea of professionalism. You know, that now everybody can be a, you know, backseat quarterback or something like that. But then two, we have sort of lost that social contract between professional societies that say, look, you may not be able to understand AI but we will hold each other accountable in a way that is visible and you can understand we have certified ethical hackers, we don't have certified data scientists that are ethical, we don't have certified ethical AI folks and I think in some respects I would like to see that happen. I am not going to say that's going to be sufficient to restore trust, but at least a society that holds your members accountable and does appropriate reviews and revoking of licenses if they think that somebody has done something that was not in the interest of customers of citizens of society.

**David Greely** (29m 08s):

And it is interesting that having to think through so many of these issues that most of us don't think about that often, but you know, so much of what we trust, it's somewhat transferable. We trust someone because someone else we trusted told us they were trustworthy and you just kind of go back and back and back and back probably to like our parents.

**Dr. David Bray** (29m 27s):

Let me give you another example too. And at the same time you trust a CPA a certified public accountant, even if they are in a company you don't trust because you know that the certified public accountant's standards and their license is dependent on them telling their boss, no, I am not going to click the books just because you asked me to. No, I am not going to fudge the numbers because you know, they have that one, they have that requirement and two they have that this actually expected of them to tell that to their boss and so I find that interesting because that's an interesting intervention, which is how can we empower individuals that even if they get undue corporate pressures or political pressures to do something untoward, they have the ability to speak up in a way that's not necessarily a whistleblower. They are just saying like, look, that is not what my profession does.

**David Greely** (30m 10):

And it's interesting, right? Because you think of like that CPA accreditation that's valuable, right? It's almost like you, you have got skin in the game, you have got a bond posted and you are not going to take the bad action because you have value at risk and you don't want to lose that.

**Dr. David Bray** (30m 25s):

Yeah. And so I think that is actually, if you go back to the United States' founding, one of the papers I love to site is Federalist Papers number 51 in which they wrote and they said what is government but the greatest reflection of humanity if all men and women were angels, no government would be necessary. So like at that very beginning the founders were saying, yeah, we recognize some people do good things, some people do mediocre things and some people, yeah, but that said, what they then say is the way to have checks and balances in the system. They also call and they say the best way to prevent a king is to have ambition, counter ambition. And so they played right into human nature and they said, look, it's not going to be perfect, but if instead of having just one individual who's ambitious, you have multiple ones. And that actually is a way that things work themselves out. I mean the reality is we have 535 members, you know, of the different parts of Congress that will serve as appropriate checks and balances and in the end, in the long term result in something that is more likely to be aligned to the interest of communities and the public than an autocracy would be.

**David Greely** (31m 28s):

I want to come back because when you talk about the importance of the providence of data and the providence of information and that being kind of foundational to establishing trust, to establishing privacy but then I think back to the, the first part of our conversation, we talked about how we are so overwhelmed with data, we just don't have the processing power. How do you think through that? How do we, if the provenance of the data is so important, how do we maintain it despite the torrent of data that we are subject to?

**Dr. David Bray** (32m 01s):

To answer that question, recently I was asked to actually speak at a geo general accounting organizations conference on how AI was going to impact auditing and how auditing was gonna impact AI and this was kind of a great conversation to have one because it's very timely and two, obviously I had experience in 2017 where there was a flood of bots and people were trying to figure out what happened. I was halfway through my keynote and I could look around and see the auditors and I could see their faces were like, oh, this is gonna change. How do we make sense of future evidence when less and authentic evidence is gonna be so easy to generate? In fact we are already there. So the question about data provenance, it's almost like you need an opt-in system because again, if we force things then we are rolling out either state surveillance or state capitalism, whatever it is, we need to recognize that the solution is people can choose to opt in and choose to share those singles when they want.

**Dr. David Bray** (32m 54s):

And I think it's going to be when you are in a corporate capacity, when you are in a government capacity, when you're even in a civil society capacity, you have the option for additional information about the source that you are and the information that you are providing to be done. For example, you don't need to know my birth date, but I can signal that I am over 21 in a way that is computationally hard to fool and so that also indirectly solves the indemnity question, but in a way that doesn't become surveillance because I may choose to be completely anonymous or I may choose to have a pseudonym and at the same time then when I give you my information on social media or something like that, you are like, we don't really know who this person is and maybe there is a reason why they are anonymous. Maybe they don't want to have reprisals or something like that.

**Dr. David Bray** (33m 38s):

Otherwise why are they really anonymous? At the same time, I want to be very cautious because there is a thing in China called Sesame Social Credit where people have basically the state, a nation has gamified reputation and they have done so in a way that the state itself has defined, you know, you post good things about the party and you show up at these right places, then you see your score go up, you post bad things about the party, you are in the wrong places, you are at a rally that you are not supposed to be, your score goes down and unfortunately there's also rewards as well as if your score gets too low, you can't get on a train, things like that. So I don't want that. That would be a very dystopic free society to see and so I don't have an easy answer other than what I would love to see in 2025 is that we see more states operating on the local level to begin to develop sort of locally driven tools that help with data provenance, that help with triangulating things.



**Dr. David Bray** (34m 37s):

The two other options that I would also suggest is in the UK they have this thing called data cooperatives or data trusts, which is this idea that using existing contract law, you don't need any government regulations or anything like that. But using existing contract law, people can come together and say, look, we all care about Parkinson's researchers, Alzheimer's research because maybe we have family members and we are willing for our data to be used to inform research into this area, but only for those purposes and we have a contract each year we're gonna have an audit. We intentionally put in place a board of some of the stakeholders that are either randomly selected or voted upon. They represent our interest. And then finally the thing that we need to do more of is we need cases where the algorithm is coming to learn on the data locally, not the data's being copied or hoovered up because I do worry that we may be reliving the moments of Napster for those who aren't familiar with Napster.

**Dr. David Bray** (35m 30s):

Napster in 1990s was, you know, was a final sharing platform that was a little dubious on how it respected artist integrity, intellectual property rights. I worry we may be doing the same thing with some flavors of generative AI where pay no attention to how we got the data, whose data it is or any remuneration back to those people and I don't want to see that succeed. I want to see a system where actually people use contract law to say I recognize my data by itself, it's incrementally valuable. But if we pull it together for either public health research or research about how to do better customer service or how to do better things involving the environment and nature, whatever it might be, we can use contract law to negotiate. So that data is a form of human voice that is actually a way that we can signal our preferences and our desire.

**David Greely** (36m 13s):

I want to come back and ask you another hard and unfair question. Thinking back when you talk about so many of these technological tools, that could be the answer. You have also been caveating it with well, but then it can also get put to bad use like social credit in China. I think back to you, you talking about the federalist papers and the need to counter power with power and ambition with ambition, and is there something in the way we are thinking about our technology that makes it unstable, that makes it kind of lean towards this autocratic anti individual outcome and do we need to be thinking about in this space, how do we create a balance of power and where are those other power centers? Is it at the individual, at the local? How do you think about that?

**Dr. David Bray** (37m 00s):

First to give the prelude that early investor in the printing press was the Catholic church. Now, would the Catholic church have invested in the printing press knowing that less than a hundred years later Martin Luther would use the printing press to do the reformation and create the schism? Probably not. So sometimes we invest in things only later to realize, you know, and I am not saying you don't invest in it, but that may be some of the moments we are having. So on the topic of technology, I do think technology changes the art of the possible and as a result it changes not only what you can do, it changes how power is balanced or not. And it also changes the narrative society can have or not. There is a lot of technologies, whether it's radio, television, even the internet, it actually, you know what the internet has done is there's no longer three major networks that we all watch.

**Dr. David Bray** (37m 45s):

There's 3 million now. We don't have any shared understanding anymore and so the other two things that I think need to factor in this conversation is with the internet, one of the things that I think we are getting a handle on nowadays is the internet because of its global reach, is resulting almost in a winner take all phenomenon that sometimes is healthy and sometimes not healthy. Nobody wants to have to pick between 20 different search engines. We all want to use the one that's the best and we all use the one that our friends are using and so that results in only one real major search engine and then people are say, well that's monopolistic. I am like, yeah, they were probably motivated to do so. I mean because again they are out to maximize your shareholder value, but it's also just a product of the internet. We don't want to have to think about which search engine am I gonna use.

**Dr. David Bray** (38m 33s):

You look at what's happening with AI right now and is almost the opposite of what happened in the early days of the worldwide web. You know, when the worldwide web came out, it was fairly easy to launch a website. It was fairly easy to sort of be online. And what's going on with generative AI right now is unfortunately it's only a few major players and if anything, if that's how we start, I am like, I don't know if that's good, but I raise that because as you think about that, I think if we are in a backdoor in which the internet as a foundation is increasingly resulting in winner take all phenomenon, what is a solution to sort of maybe peel that back because I don't think it's always a good thing. I mean it used to be you could be the third best retail store in the country or at the fifth best retail store and you could do a viable business.

**Dr. David Bray** (39m 16s):

And increasingly we are seeing businesses increasingly get eroded. The beauty of what the founders did is they figured out a way to use human nature to hold back what could be easily a king like individual and so I think what we need to do is figure out how do we upgrade evidence-based economics and there is a lot of economics that is not evidence-based and I am on a personal crusade to try and encourage more evidence-based experimental economics that can actually begin to inform the decision making we're happening here. Gain theory for example, which supposedly helped us win the Cold War. If you actually look at how people play the game, there's a classic paper, it's only accurate 30% of the time. So we're using, I won't even call it science 'cause it's not empirical, but we are using a field that is only accurate 30% of the time to inform policy decision making on how we do.

**Dr. David Bray** (40m 04s):

And so I have actually made pitches to NASA and three letter government agencies that say we need to have a science of systems that actually is empirical based. That involves people through conversations about what do you really want? What do you really want to pursue? Make it so that actually we get people centered approaches because I think we're lacking the very tools to make good decisions individually, locally, and nationally to balance those checks and balances. I do think data, you know, if we can get off the idea that data's the new oil, it's not, I am like, how could that mean exists? I mean oil, use it up, it's gone, data use it's still there and if you involve people that the data's associated with it, they actually make it better. So I do think if we think about data as a form of human voice that hopefully will help address some of the asymmetry at the moment.

**Dr. David Bray** (40m 53s):

But I also think there's a larger issue, which is I alluded to a little bit earlier, I think we have gone too far in direction of shareholder driven economies and recognize that at the end of the day it's people in organizations doing work. Now, yes, it's increasingly gonna be people in machines, but those people also deserve some equity. Those people also deserve a stake and if you think about it, if your data is being used by that organization, the people that produce that data deserve a stake. So if we can figure out a way to make things more stakeholder driven as opposed to shareholder driven, that too may address some of the asymmetry and we have been here before. The final note I would say is imagine I told you this time in US history where there is rapid technological progress, the rise of corporations, some of those corporations waded into influencing politics. The news sold disinformation, sensationalist, Ken Lions, and we may have gone to war with Spain over a disinformation event. Remember the main, that ladies and gentlemen was the first gilded age. We might be repeating it.

**David Greely** (41m 50s):

I want to thank you for such a thought provoking conversation and I would like to wrap it up by just focusing a little bit on the next steps and give you the last word. We have talked about what needs to be done for individuals. I was hoping we could just close out by getting your thoughts on what steps we as individuals can be doing. Like what do we need to be doing to mobilize that radical middle of reasonable people, the reasonable middle and what can these individuals do to find each other, connect and work together.

**Dr. David Bray** (42m 24s):

Break bread, have meals in some respects, a very basic fundamental human thing, which is share a meal with someone that you don't always agree with and it's really hard if, as long as you are coming to it with a genuine heart to at least not find a fascinating conversation, even if you walk away and so I've actually been doing this since I got back from Afghanistan in 2009. I came back from Afghanistan late, why are we still here. I would actually done briefing saying we need to leave Afghanistan, 13 different tribes. And sadly I look at the last 14 years and I find like United States has become more like Afghanistan than the other way around. We're actually more tribal and things like that. But the thing that I say, it's actually a fairly simple thing, which is I would love to see at the first measure people at the local level, just invite people at your local level that you don't always agree with and start having meals.

**Dr. David Bray** (43m 08s):

Because what makes the United States great is we are a country in which you are free to disagree, yet there is things we still value, we still value freedoms. The second thing though is after we do that, I actually think we need to see more organizations start to show what's possible. I mean, we used to have world fairs or world expos and they were showing us these massive scientific world progress. I mean, you and I were supposed to be in space by now, I am still looking for that. But it showed, it captivated people's attention. I still, I want to go back to world fairs, but I want world fairs to not just be what's possible in terms of science and technology, but what's possible in terms of societies. I just took my 7-year-old to Disney World and you know, he loved Epcot. What is an Epcot equivalent that helps to see a non-dystopian narrative about what 2035 looks like and then from there, if we start to do that at a grassroots level, we start to actually showcase maybe once a year what's possible and it's not just technology, it's also people. Then I actually want to see

some very concerted efforts. I know we are gonna have an administration that wants things to be more market driven, and I am all for that. But maybe just gonna be some concerted efforts to actually demonstrate how can we invest in things that empower individuals to still be free going forward and as things we can have here at home. But let's face it, there is several nations, Ukraine, Taiwan, other nations as well, that are going to need these technologies as well. Let's become a nation that exports technologies that allow us to coexist and have differences of opinion. And that can even include just simple graphical novels. I actually made a pitch before COVID. It was 2019, and then unfortunately COVID happened. It was called the Million Bus Rider or the Million Dollar Bus Rides. And it, the idea was, if for a million dollars, I could have a thousand, thousand dollars bus tickets and I was going to have people from more red parts of the country go to Blue, more blue parts of the country go to red, and I was going to actually interview them before they did it.

**Dr. David Bray** (45m 11s):

You know, get them to upload their thoughts, have them do the bus ride, have them spend two weeks with a family, have them give their narratives there, and then when they come back, and it really is just sort of the idea that experience can transform your thoughts, then you realize that my perceptions about the other were actually not exactly accurate. And I was then gonna say to Netflix, you make this a documentary, it'll probably actually pay for itself and be sustaining. So, so maybe you and I can pitch it to Netflix, but start with shared meals. Then figure out how a way to sort of show the possible in a way that's non dystopian, that is optimistic. And then finally, make it a concerted program to actually do those exchanges.

**David Greely** (45m 48s):

Thanks again to Dr. David Bray, distinguished Chair of the Accelerator and CEO and Principal Stimson Center and LDA Ventures Incorporated. We hope you enjoyed the episode. We will be back next week with another episode of Inside the Coffee House. We hope you will join us.

**Announcer** (46m 10s):

This episode was brought to you in part by Abaxx Exchange, where trading in centrally cleared, physically deliverable LNG and Carbon futures contracts is now underway. Ready for smarter markets. Contact us at [onboarding@abaxx.exchange](mailto:onboarding@abaxx.exchange).

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