

Transcript | How to Build AI Chatbots that Users Actually Like

1

00:00:10.340 --> 00:00:19.340

Lowell Weisbord: Hello! And welcome to this event on how to build AI Chatbots that users actually like

2

00:00:19.650 --> 00:00:26.149

Lowell Weisbord: we're going to give everyone a few minutes to join the call. But it's really great to have everyone here.

3

00:00:26.500 --> 00:00:53.770

Lowell Weisbord: I can see people flowing in, and it would be great to kind of see where you're coming from today. So again, for anyone who's just joining welcome to how to build AI Chatbots that users actually like, we have some really fantastic case studies to share with you over the next hour, and I'm looking forward to Fielding your questions along with our 3 really great speakers today. My name is Lowell Weisbord. I'm a senior product manager here at Apolitical.

4

00:00:53.810 --> 00:01:11.679

Lowell Weisbord: It would be really great again to hear from everyone. I'm currently in London today. I know our speakers are in various few places. But yeah, it'd be great to hear, maybe, where what government you're from, what department, maybe. What country? Welcome Scott from Canada. It's great to have you

5

00:01:14.180 --> 00:01:43.439

Lowell Weisbord: welcome from Ottawa, United Kingdom, brilliant for those of you who may be joining us for the 1st time. Welcome, Apoliticals! The world's largest community for government. We're used by over a quarter 1 million public servants and policymakers from more than 170 countries. We're starting to get some some broader representation here. Ireland to the Cayman Islands. Welcome from London, Ipswich, Canada, Glasgow brilliant.

6

00:01:43.750 --> 00:01:57.060

Lowell Weisbord: Our mission at Apolitical is to make government smarter. We do this by putting the best knowledge and skills at the fingertips of public servants around the world. That's what

we're trying to do today. We have people who have worked in the public service who are going to kind of share a little bit about

7

00:01:57.350 --> 00:02:10.540

Lowell Weisbord: how we're trying to make this better today. This event is part of our Government AI campus, which our goal, our lofty goal, is to train a million public servants in order to create AI ready public services.

8

00:02:10.580 --> 00:02:32.090

Lowell Weisbord: The campus more broadly is a trusted knowledge and learning hub for governments, and the world's 200 million civil servants focused on governing and applying the technology. You can take up your place on the campus by following the link that my colleague just dropped in the chat. More resources, more events like this. It would be great to have you, especially with this group who's

9

00:02:32.280 --> 00:02:38.840

Lowell Weisbord: really interested in the nitty gritty of how are we gonna kind of apply AI in ways that are useful to people

10

00:02:40.220 --> 00:02:51.660

Lowell Weisbord: great to see some more folks joining from the center for technology and government at the University of Albany in New York. Let's welcome Geneva, Switzerland welcome. It is great to have you all

11

00:02:51.990 --> 00:03:12.939

Lowell Weisbord: a couple technical notes as we get into the conversation. The event is recorded for on demand. Viewing on our website. Please don't record it yourself. And you have contact details for privacy concerns in our footer on the website. Closed captions are available as well, if you click the closed captions button on the bottom bar.

12

00:03:14.820 --> 00:03:33.720

Lowell Weisbord: As we get into things here, we're going to kind of figure out who who's in the room where where we all calling from, we have a quick poll to get a sense of what you're hoping to get out of the discussion. So the the 1st one here is, have you used an AI Chatbot when accessing a government or private service before? Have you ever used one?

13

00:03:36.570 --> 00:03:46.049

Lowell Weisbord: And we'll give it. Give everyone about 5 more seconds to to respond and feel free to. Yeah. Feel free to keep the the chat going as well throughout.

14

00:03:50.980 --> 00:04:09.449

Lowell Weisbord: okay, we have around 80% of folks saying, yes, I've used an AI Chatbot 13%, no, 7%. Not sure, I think really fair in the sense that more things are kind of incorporating AI below the surface, or in ways that we might not know and have been for a really long time as well.

15

00:04:09.490 --> 00:04:23.710

Lowell Weisbord: The second question we have for you is kind of what do you think the biggest challenge in adopting AI Chatbots in public services are so when you kind of go about saying, Oh, I think this would be an interesting solution to the problem, a Chatbot, what is the

16

00:04:23.880 --> 00:04:29.169

Lowell Weisbord: the challenge that you're most worried about, and again feel free to post in the chat if you're

17

00:04:29.380 --> 00:04:31.120

Lowell Weisbord: if you have other ideas.

18

00:04:31.700 --> 00:04:41.079

Lowell Weisbord: And so we have the options being ethics, the efficacy? Will it actually solve the problem? Technical complexity, implementation, citizen trust

19

00:04:41.200 --> 00:04:49.179

Lowell Weisbord: budget and resources, or probably a myriad of myriad of other things as well? Data protection? Yeah, this piece around both

20

00:04:49.970 --> 00:04:55.250

Lowell Weisbord: kind of the ethics and and the trust getting leadership buy-in, I think. Yeah, we'll definitely talk about

21

00:04:55.450 --> 00:05:15.340

Lowell Weisbord: stakeholder engagement and and how to how to go about that today. From. We've got a pretty mixed, interesting mix of responses. Which is, which is this can kind of help

guide a bit of the conversation today from our our speakers. But ethics, 16% efficacy of Chatbots, 33%. So I think that's

22

00:05:15.670 --> 00:05:27.560

Lowell Weisbord: kind of gets at the the title of today's today's event to AI Chatbot that users actually like and and, you know, actually use get value out of citizen trust at 24%

23

00:05:27.690 --> 00:05:37.850

Lowell Weisbord: budget technical complexity and other things down there as well. Yeah, it restrictions red tape hallucinations. All things that I think we'll touch on today.

24

00:05:39.340 --> 00:05:48.469

Lowell Weisbord: And the final poll here is what function do you think a Chatbot could most improve in your department? So I know we'll be calling in from a pretty wide range of

25

00:05:49.010 --> 00:05:53.715

Lowell Weisbord: government department services, territories, States, etc.

26

00:05:54.910 --> 00:06:02.959

Lowell Weisbord: feel free to drop in where you think it might be useful in your context. Citizen inquiries, application processing staff support.

27

00:06:03.070 --> 00:06:20.990

Lowell Weisbord: public consultations, all really interesting use cases that that we're starting to see crisis responses, language accessibility. Yeah, reducing call center workload all kind of operational efficiency on the front end, all of the above, along with accessibility really interesting and and relevant.

28

00:06:23.540 --> 00:06:27.280

Lowell Weisbord: We'll give everyone a few more seconds to to throw their votes in here.

29

00:06:29.740 --> 00:06:53.129

Lowell Weisbord: getting some really good suggestions in the chat to support staff accessing policy resources. So we said. A quarter of folks, said citizen inquiries, or someplace where they think it might improve services in their department. A quarter of people said, internal staff

support, I think. Yeah, really interesting. And that could relate, maybe, to some of the suggestions in the chat, too, like accessing policy resources or otherwise kind of tooling.

30

00:06:53.170 --> 00:07:03.450

Lowell Weisbord: And then we have a mixed response of people application processing, public consultations, not too much for crisis response at the minute, and a little bit on accessibility.

31

00:07:05.300 --> 00:07:08.620

Lowell Weisbord: Thanks for kind of helping frame this conversation.

32

00:07:10.240 --> 00:07:16.590

Lowell Weisbord: but we're going to really start with our 3 speakers here who I'm about to tell you a little bit more about.

33

00:07:17.960 --> 00:07:40.859

Lowell Weisbord: we have Elise Andy, Fan and Marcy Harris with us today, Elise and Andy both work at agriculture and agri-food Canada. Elise serves as the chief data officer a role she's held since 2021. And Andy is a technical advisor at Aafc. His work focuses on the ethical adoption of AI and robotic process automation technologies

34

00:07:41.010 --> 00:07:44.120

Lowell Weisbord: really great to have you both. Marcy

35

00:07:44.250 --> 00:08:09.590

Lowell Weisbord: is the executive director of the nonprofit Popfox Foundation, which focuses on ensuring that democratic institutions are equipped to address the gap between emerging technologies and governance. It's really great to have you very much in line with what we're trying to do here at Apolitical. So it's great to hear a little bit from your expertise. You can read their full bios by visiting the resources tab at the bottom of your zoom screen and checking out the Speaker section.

36

00:08:09.830 --> 00:08:18.430

Lowell Weisbord: But we're going to get started with our speakers. A quick icebreaker. Get everyone talking and feel free to please respond to this in the chat as well.

37

00:08:19.305 --> 00:08:43.630

Lowell Weisbord: Today's event is all about building chat bots that users actually like right, that that kind of key is a key part of this, right? I think I think we could. We've all seen Chatbots that maybe aren't useful, or don't, or solving a problem that isn't there, or that seem maybe just a bit up themselves. But let's flip that for a moment and ask you. Tell us about the most confusing, frustrating, or inefficient service

38

00:08:43.630 --> 00:08:58.949

Lowell Weisbord: you've experienced as a user that you think a Chatbot really could help improve. So what's something that you you 3 have come across and keep this coming in the chat, too, that you think? Oh, wow! A Chatbot is is the solution.

39

00:08:59.050 --> 00:09:03.089

Lowell Weisbord: Marcy, you're at the top of my screen for me. So I'm going to pick on you first.st

40

00:09:04.130 --> 00:09:12.663

Marci Harris: So there were so many examples that came to mind when you teed this one up. But I I have to say this is recent. So

41

00:09:13.020 --> 00:09:40.510

Marci Harris: I, I had one of those frustrating experiences where a flight gets canceled and everyone else's flight gets canceled too. And so you try to call in to to rearrange things, and they tell you that the wait time is over an hour. So what I thought was helpful about this as an example is that you're not comparing the potential of engaging with a chat bot to perfection

42

00:09:40.510 --> 00:10:04.490

Marci Harris: or the ideal situation, but rather comparing it to the status quo which was waiting an hour to actually talk to a person to get a thing done. So I think when there are really frustrating situations. And you really just want to be able to dig in, get some information and move on. That's again comparing to the status quo, not to a perfect experience.

43

00:10:05.450 --> 00:10:14.659

Lowell Weisbord: Yeah, yeah, really, really useful. And I think other people can probably empathize with that. With that frustration as well, Elise, over to you.

44

00:10:15.220 --> 00:10:37.989

Elise Legendre: Although I'm like you, Marci. When Lowell said that I was like, oh, so many, so many, so many times. I think I'm gonna use a time in in where not me but a family member was trying to figure out how or where to get an appointment in a clinic in Quebec, and he had to wait for, I think, 2 h online for somebody to give him that information.

45

00:10:38.210 --> 00:10:47.539

Elise Legendre: And and that's that's another for me. A typical like this is not about the diagnostic. This is not about anything. This is about basic information. But I find that we

46

00:10:47.910 --> 00:10:51.840

Elise Legendre: we get to a place where we have a very binary

47

00:10:52.020 --> 00:11:14.039

Elise Legendre: vision of how those tools can be used. And I think, Andy, you'll talk about it some more. But I think that's where we need to stop this all or nothing at all. Approach to these tools and start experimenting and thinking where we do it. And for me, I live in Quebec, in Canada, and having access to health is complex, because we probably don't leverage those technologies as much as we could.

48

00:11:15.230 --> 00:11:16.010

Lowell Weisbord: Hmm.

49

00:11:16.360 --> 00:11:27.839

Lowell Weisbord: highly critical. I think in in yeah, in health services, more broadly, especially when they're over leveraged in a government context. I mean, yeah, I think there will. Hopefully, there's someone on this call who's

50

00:11:28.110 --> 00:11:34.479

Lowell Weisbord: comes from that space. He's trying to trying to solve this problem. I suspect there is finally over to you, Andy.

51

00:11:35.090 --> 00:11:59.290

Andy Fan: Oh, thank you, Lowell, I think for myself. Can I say? My! Can I say my own life like I? Honestly, I'm a very, very forgetful person, and oftentimes I find myself either having conversations with people or trying to do something, and I'm just like forgetting about I'm just. I just forget, like and I wish that there was. Oh, is there like

52

00:11:59.290 --> 00:12:24.270

Andy Fan: a version of myself that I can talk to that? Understood? You know my own context, my own personal context. That can like help me resurface these things. Help me remind myself of these things. And I think it's interesting, because the way that I see the trend going right with a lot of like deeply personal AI on devices like your phones and some new emerging modalities like smart glasses and things like that. We're starting to see that, like the conversions to that sort of deeply personal AI.

53

00:12:24.270 --> 00:12:30.429

Andy Fan: So I'm actually really looking forward to that being a reality.

54

00:12:31.290 --> 00:12:54.279

Lowell Weisbord: Yeah, really interesting. In a really, a really bare point. More of these things are be having access to, not just a set of data that you're designing it to use, but and forever updating set of data that might relate to the specific user or to a specific context which really kind of changes changes, what what these things can be, and and also how you design and build them to be useful. Right? They can kind of be recursive.

55

00:12:54.655 --> 00:13:11.679

Lowell Weisbord: That is some really interesting use cases to get everyone's mind thinking, appreciate all the questions, comments, etc, in the chat as well. Do keep them coming. There's a question and answer feature which we're very excited to get to that point of the conversation after our presentations. We're going to have 2

56

00:13:12.230 --> 00:13:21.889

Lowell Weisbord: quick presentations from both Elise and Andy, and then, Marcy, but without further ado, I'm going to hand it over to you, Andy, who, I think, is going to share your screen.

57

00:13:22.990 --> 00:13:47.320

Elise Legendre: I think, while Andy share his screen, he's going to be doing the bulk of the presentation, and maybe what I can do is just provide a couple of remarks at the outset, so I don't want to steal any of sorry I'm dealing with some allergies this year, so it's getting a little bit cloudy in my voice. I'm sorry about that. I'll try to refrain from coughing too too much. So just before we jump into the

58

00:13:47.320 --> 00:13:56.319

Elise Legendre: chat success story because it is a success story. I just wanted to take a minute to talk to you a little bit more about Afc's approach and our AI journey

59

00:13:56.320 --> 00:14:12.060

Elise Legendre: right, Andy, if you want to move to the next slide, please. It's it really started from looking at ways to do things better or improve things right. This was this was not. This was looking for efficiencies, and it really started

60

00:14:12.590 --> 00:14:37.259

Elise Legendre: in our Gcwcc campaign in Canada. We have a government of Canada workplace, charitable campaign. That's what Gcwcc. Stands for. So a fairly low risk activity where we could start cutting our teeth on using automation and simplifying some of the actions that were taking place to increase the success of the charitable campaign on the one hand, but, on the other hand, also

61

00:14:37.370 --> 00:14:54.220

Elise Legendre: experiment in an environment that was not considered high risk. So people would be a little bit more willing to try and see, because those technologies like you go back in 2021. Those technologies are fairly new. They're a bit scary. There's a lot of the, you know. Everybody. When you talk about AI thinks about

62

00:14:54.390 --> 00:14:56.130

Elise Legendre: that terminator

63

00:14:56.410 --> 00:15:23.979

Elise Legendre: story of the AI taking over and destroying the world, and you need to bring it like you need to acknowledge those fears, and but at the same time. Keep pushing forward. Right? We're in a very different place now in 2025 than we were in 2021. So we started like this and slowly started to have build those skills within the team as well. Right? Build that interest. And Andy is part of the original gang. So he's been able to grow in those roles.

64

00:15:23.980 --> 00:15:43.779

Elise Legendre: and the technology is caught up in 2021. We were not talking about Openai. We were not talking about generative AI, the way we are now, and in a government setting 4 years is not that long? So it's quite impressive how fast we were able to like, I said, adopt and adapt and use those technology.

65

00:15:43.850 --> 00:16:06.210

Elise Legendre: So if you look at the timeline, you'll see that we moved fairly quickly from automation. We entered into the public service data challenge similar to the one that is in the UK. We actually tacked on to a team that was proposing using AI to make service more accessible to Canadian and to citizens to improve

66

00:16:06.210 --> 00:16:15.459

Elise Legendre: delivery. And that's how the work started in a small team, taking chances, giving them a safe space to experiment, and giving them some

67

00:16:15.460 --> 00:16:24.150

Elise Legendre: opportunity to learn and try and advance and convince and show. I think that's the other thing that was important. Very quickly on. We were showing

68

00:16:24.150 --> 00:16:49.090

Elise Legendre: those results, and we were bringing people into 10 to experiment with us. And that's how the work. That's how we got to act, Palchat again with that small team. But now it's taken a life of its own at Afc. And we've actually have a whole team dedicated to what we call the I. 3 a. And I think was here a few weeks ago with apolitical doing

69

00:16:49.090 --> 00:17:03.519

Elise Legendre: presentation about AI. So that's really taken off. So actbow chat in our AI journey was the beginning of this. It's now taken like I said, a whole new space, but we've been able to do it in a way that we were able to

70

00:17:03.520 --> 00:17:05.089

Elise Legendre: minimize risk.

71

00:17:05.270 --> 00:17:21.940

Elise Legendre: show benefits and bring people along in a very collaborative fashion. Right? It was an effort from 3 different lines of work in this department to be able to push this forward and make it happen. And I'm very proud of the results I'll give.

72

00:17:27.589 --> 00:17:40.889

Elise Legendre: but is really really interesting. It's building on the fantastic data management work. And I think that's something we need to not lose sight of. You need to do your data management right? Or you need to scope your work

73

00:17:41.200 --> 00:18:04.460

Elise Legendre: to the level of where your data management is to be successful. But what I'm particularly proud of is in the span of about a year and a bit, we were able to go from concept to adopting a new technology, to actually delivering service to Canadian, and that for me is the success story of agpal chat. But I'll pass it over to Andy because the tool is pretty cool, too.

74

00:18:06.390 --> 00:18:27.030

Andy Fan: Awesome. Thank you so much, Elise. So for myself. Here I'll be providing an overview of our ag PAL. Chat Chatbot. I'll take you sort of through our journey of development, and then we'll go over some lessons learned that we think will be helpful for your own journeys when building out AI chat bots. So agal chat

75

00:18:27.030 --> 00:18:40.970

Andy Fan: ical chat is the government of Canada's 1st public facing generative AI Chatbot that helps to provide conversational, helpful advice to Canadians on a whole host of government programs and services in the agricultural sector.

76

00:18:40.970 --> 00:18:59.119

Andy Fan: and, like Elisa, mentioned its conception sort of came from the public service data challenge. And since its launch, you know, Agpal Chat has sort of received accolades from winning that challenge. But above all else, and probably the most important here is that it's helped the Canadian public

77

00:18:59.330 --> 00:19:01.200

Andy Fan: in in a real way. So

78

00:19:01.440 --> 00:19:25.820

Andy Fan: to date, the Chatbot has done over 2,300 user sessions has answered more than 4,000 questions and has an average overall positive rating. So you can actually go and try it yourself at Agpalca. So that's HEPA. Lca. But I will mention that if there is all of a sudden a large spike in traffic volume, it isn't quite well equipped to handle that because of the

79

00:19:25.820 --> 00:19:33.010

Andy Fan: expected volume of visitors, for this site is usually lower. So all that to say is, if you find yourself encountering performance issues.

80

00:19:33.010 --> 00:19:38.099

Andy Fan: Worry not you can. You can wait a little bit and refresh the page to try again.

81

00:19:39.025 --> 00:19:42.110

Andy Fan: So move over to the next slide here.

82

00:19:42.990 --> 00:19:43.590

Andy Fan: Oops!

83

00:19:43.810 --> 00:19:44.749

Andy Fan: I don't know.

84

00:19:45.690 --> 00:19:46.670

Andy Fan: Sorry.

85

00:19:47.600 --> 00:19:52.290

Andy Fan: Oh, I accidentally clicked the hyperlink there, so let me go back to the page.

86

00:19:52.733 --> 00:19:55.550

Andy Fan: And then we'll go to the next here. Okay.

87

00:19:55.750 --> 00:20:21.489

Andy Fan: so this is a bit of a timeline as to to give you all a sense of the journey of the work that it takes to conceptualize and implement something like this. So like I mentioned, it started with the public service data challenge. And initially, we landed on a couple of things. It was an AI enhanced version of the existing search bar towards the top of the page on the website, and then a rudimentary chatbot.

88

00:20:21.490 --> 00:20:35.280

Andy Fan: which used rather simple sort of out of the box services to help users search for those programs and services in a bit more of a conversational way. And out of the 2 that latter one had bore a bit more resemblance to the ag PAL chat that you see today.

89

00:20:35.290 --> 00:20:55.719

Andy Fan: And so these 2 ideas were sort of enough to get us past and into the semifinals of the challenge. And at this point we were working away at sort of making iterative improvements in preparation for the finals, when all of a sudden everything had changed. So this was when Openai had released Chat Gpt, and it basically

90

00:20:56.100 --> 00:21:20.240

Andy Fan: we ushered in this era, where the idea of a Chatbot that could sort of properly understand your intent and answer your question in a way that was, you know, seamless and almost like magical, became possible. So with about a month before the finals, we sort of blew everything up and started from scratch like we knew we had to capitalize on the technology because it fit the use case so perfectly. So we had rebuilt our prototype and it ended up winning us the data challenge

91

00:21:20.570 --> 00:21:45.170

Andy Fan: now winning. The challenge was nice and all, but it really set the precedent for us to go through and see through the implementation. And I would say that, like the period between winning the challenge and getting it implemented was quite tumultuous. Honestly, because it's 1 thing to build a prototype. But it's another to sort of get that prototype through the governance. Address, the risks across the stakeholders, and sort of navigate at the time.

92

00:21:45.170 --> 00:21:50.760

Andy Fan: The ambiguity that resulted from a lack of guidance because of how new the technology was.

93

00:21:51.090 --> 00:22:14.710

Andy Fan: So you know, we sort of had like to leave 0 stones unturned and treat this process with a high level of care, because, you know, at the end of the day we're serving the public, and we didn't want to erode trust. So that meant a lot of rounds of iterative improvements, a lot of user testing. And we leveraged, I think, at the time the most relevant policy, guidance and resources we had available.

94

00:22:15.046 --> 00:22:34.569

Andy Fan: And we collaborated and collaboration is key here. With all the entities that we possibly could to address any potential issues. So privacy teams, legal teams, architecture teams. You know, consultations with other government departments, etc. And we were finally able to launch and get ag PAL chat put into the wild.

95

00:22:36.007 --> 00:23:01.742

Andy Fan: So so I'll start like these are the lessons learned that we've tried to crystallize and make as applicable as possible to a public service context. But I'll mention off the bat that these are driven by, I think, like a a bit more like technical learnings and findings underneath them. So I'll start with the designing for accessibility and user friendliness first, st and then I'll move to the implementation. So

96

00:23:02.220 --> 00:23:29.369

Andy Fan: in terms of user accessibility and user friendliness, especially with AI Chatbots. I think the most important thing is is building that trust right? So when it comes to AI, I think people have a sort of naturally defensive nature when it comes to maybe viewing and and consuming AI content and so in, in efforts to not erode that trust, especially in a public service context, I think you want to be very honest and clear about like what the use case of the chat bot is

97

00:23:29.370 --> 00:23:48.860

Andy Fan: what you're doing with the data and then spelling out any known limitations. So if you look at agpal chat, for example, you'll see examples of this being implemented through either the introductory modal that describes the chat Bot and gives examples on, like the questions that you can ask and and links to relevant privacy and usage sections on the site, about

98

00:23:48.860 --> 00:24:02.389

Andy Fan: what we do with the data and the fact that it spells out that this is an AI system and responses it generates may not be perfect. We're not hiding the fact that this isn't pretending to be a human right.

99

00:24:02.687 --> 00:24:21.440

Andy Fan: Another important point here is on language and tone. So presuming that you are leveraging large language models for your AI Chatbots. I I think the default of you know, professional and friendly, would work in a majority of used cases. But you have the option to modify this, as you see fit on, based on your use cases.

100

00:24:21.480 --> 00:24:46.109

Andy Fan: Now, one particularly useful thing, and probably important thing that you can do is to compensate for any inherent biases in the responses. So large language models are trained on really, really big corpuses of data, and as a result they might inherit inherent biases in those corpuses of data. So when we take our agricultural Chatbot, for example, there may be a presumption that you know a lot of farmers are

101

00:24:46.110 --> 00:25:07.479

Andy Fan: are male, and it might you know, mistakenly presume that the person it's talking to is male, and so to address this example, like you know what you can do is prompt, engineer, your responses to be as independent of presumptions of gender or sex assumptions in this case, and it can actually be as simple as just telling the model. So in in a system prompt?

102

00:25:07.911 --> 00:25:15.958

Andy Fan: I'm I'm gonna skip over the accessibility point for a second and go to error handling, because I think, like the last 2 points, the error handling speaks specifically to

103

00:25:16.310 --> 00:25:34.899

Andy Fan: AI chatbot. So so what is meant here by bounded outputs and ambiguous out inputs is really about fail safes. So it comes down to the fact that a user, you know, can technically ask the Chatbot anything. And so it's important to ensure that interactions. That you you're you're creating here are like within the scope of the use case.

104

00:25:35.172 --> 00:25:54.529

Andy Fan: And if they deviate that, you have a detection and handling process in place, so one of the ways that you can do this is by scanning inputs from users and outputs from the system. Defining a sort of threshold for relevancy against your use case and then building out conversation flows to you know, either redirect or reprompt the user to try again if it's deemed irrelevant

105

00:25:55.760 --> 00:26:22.619

Andy Fan: and I guess, like after that, following that it's good segue for the point after and this is really, I guess, a standard practice with chat bots, and that's on the feedback and escalation channels and providing such. So with escalation channels like taking that example, I just put out you, you basically want to be able to offer alternative ways for the user to achieve their goal. If the chat bots stream is not working out and so in your redirection flows right, perhaps pointing out to the way that the user can self serve

106

00:26:22.620 --> 00:26:37.509

Andy Fan: or providing contact info so that they can interface with humans is a good way to go about at it and then moving back to accessibility. And I think this really speaks to making your chat bot as available to as many people in your audience as possible.

107

00:26:37.510 --> 00:26:56.239

Andy Fan: and sort of depending on the rules and regulations that apply to you. These actually may be requirements. So you know common things like Wcag, which tests, for you know your

web, that your web content is accessible. It's readable by, you know, screen readers, etc. If you need to support multiple languages like we do for

108

00:26:56.620 --> 00:27:14.749

Andy Fan: chat, as Canada has 2 official languages, English and French and then there are, of course, like the common user interface, user experience practices and communication modalities that you might want to consider offering like, there's the the basic one like typing. But like they're also you know, speaking vision and and etc.

109

00:27:15.403 --> 00:27:18.229

Andy Fan: So then onto the implementation lessons.

110

00:27:18.536 --> 00:27:38.599

Andy Fan: and a specific to scoping here. So I think the most important thing is really on understanding your problem space. And whether or not a custom solution makes sense. And I I think you're basically trying to answer the question of can chat, gpt, do this with minimum modification, because if it can, then you actually might be better off just leveraging an enterprise version of that.

111

00:27:38.600 --> 00:27:51.880

Andy Fan: But underneath that I think it's 2 main considerations like one on your data. So if you're using something like retrieval, augmented generation or rag for short, and another on your context. So on your data. If

112

00:27:52.020 --> 00:28:06.869

Andy Fan: a custom solution, I think, can be justified if there's some level of moat on the data, right? So it's either really hard to obtain or you need to curate it, or there's a requirement for it to be up to date, like with agpile chat and answering to relevant programs and services.

113

00:28:07.314 --> 00:28:23.769

Andy Fan: And on the contact side, if the context that you're working in or the use case of the context is complex enough where you might require a pipeline or like a series of checks and balances against data, inputs and and responses. Then it's worth investigating a custom solution.

114

00:28:24.175 --> 00:28:49.940

Andy Fan: It's not mentioned here explicitly. But I think once you've defined out your solution. You really want to avoid scope, creep, scope, creep. So this is like a sort of product of maybe emerging technology. But you may find that as you go through your development process, people come up with all sorts of you know, ideas and suggestions, and if you're not steadfast and standing your ground you might just end up in in a cycle of not being able to ship what you originally sought out to

115

00:28:50.200 --> 00:29:06.859

Andy Fan: the next point. There is on understanding the relevant directives, policies, and guidance that apply to what you're trying to do. And so, for example, in Canada. We have something called the Directive on Automated Decision, making the guidance on the use of generative AI. Among others, I think in the EU there's the AI act?

116

00:29:07.137 --> 00:29:30.450

Andy Fan: And so these are essentially the policies that help sort of draw the boundaries in which your AI solutions can operate from like a technical and policy perspective. And so I. And so getting a thorough understanding of these rules, I think, is really important, and can be quite helpful in even constraining the scope of your solution. The 3rd point is on buy in. So this this is really goes to the fact that having backing by

117

00:29:30.450 --> 00:29:40.109

Andy Fan: senior folks within your organizations. Can help alleviate potential points of friction as you go through the process of setting up the development of your solution and and the governance of it

118

00:29:42.030 --> 00:29:53.419

Andy Fan: on prototyping. So some of this stuff is common to developing software. But I think, nonetheless important. So developing iteratively, getting feedback and constantly calibrating towards you know your optimal solution.

119

00:29:53.774 --> 00:30:17.539

Andy Fan: The one very important thing I'd like to highlight here is on data management, especially for Rag, because if the underlying data you're using to help your Chatbot reason with isn't of good quality, then I think by extension your responses won't be of good quality. So when you're doing rag, try to have a robust and flexible data, architecture and governance that helps support the support.

120

00:30:17.540 --> 00:30:19.019

Andy Fan: This kind of scenario.

121

00:30:20.350 --> 00:30:44.089

Andy Fan: the next point is on ethical and responsible. AI. And I think it's really trying to answer the question of, you know, can your solution cause undue harm, and if so, like, how do you mitigate it? So like, for example, the the mail farmer example I was mentioning, and I think your tools here really will be in context, engineering of the system. So making sure you're crafting good Meta prompts and building into your response generation pipeline things like

122

00:30:44.120 --> 00:31:07.950

Andy Fan: personal info and content, safety, redaction and detection mechanisms. And then there's, of course, red teaming, which is having your team to try and break the system as you're developing it from the user perspective and then patching for those at this point, I think there's a recognition that you won't be able to patch 100% of cases. And so this sort of good, this sort of goes back to building trust and communicating the limitations of AI

123

00:31:08.289 --> 00:31:32.480

Andy Fan: The last points here. Really, on deploying, really speak to strategies for you to manage risk when the chat bot is out in the wild, so I won't belabor the points on here. But basically the the soft and the soft launch is basically to give you a gate to if you need to take back the info if you need to get it out. Have users, test it, and then take back the information a little bit later. To see if you know, if it's okay to continue or if it's

124

00:31:32.720 --> 00:31:48.250

Andy Fan: or if you have to, if you have ticket offline to work with it sort of gives you that gate. There are some points here on adoption and socialization. So that speaks to change management and making sure you're communicating the value and even addressing some of like the risk or concerns that people might have.

125

00:31:48.510 --> 00:32:13.569

Andy Fan: And then the last point here is really on keeping humans in the loop, like at the end of the day. These are systems that are designed by humans for humans. And you know, humans can make mistakes on both sides. So it's incredibly important, I think, to have as part of your deployment strategy a level of human involvement to ensure a safe and performance system. So that's that was a lot of information. I think we're happy to explore. Some more that, or dive deeper into that in the QA. Section. But

126

00:32:14.010 --> 00:32:29.939

Andy Fan: even after that, if you have inquiries or questions. I'm putting onto the screen a, our email here that you can reach out and connect with us to so that covers. I think all the all the information that we want to cover. So I'll stop sharing there and maybe pass it back to Lowell.

127

00:32:30.360 --> 00:32:48.930

Lowell Weisbord: Thanks so much, Andy, that was really brilliant. I think some really, really practical pieces at the end, especially of how do you implement these things. What are the things you need to be thinking about and also appreciate the narrative of like on this Meta level? How do you get buy-in? How do you get stakeholder buy-in? I mean, interesting things like coming through a

128

00:32:48.970 --> 00:33:04.030

Lowell Weisbord: a data competition is an interesting way to kind of get the validation you need to, especially in government context, where people can be risk averse. So so a bunch of really useful things, a bunch of interesting questions in the chat. But I'm going to throw it right over to you, Marcy, for your presentation.

129

00:33:06.720 --> 00:33:10.200

Marci Harris: Great, and I will try to be quick so

130

00:33:10.430 --> 00:33:33.979

Marci Harris: we can get to questions. So just background on Popbox Foundation. So, as mentioned, our mission is to help democratic institutions keep pace with how quickly society is changing. We are us based nonprofit focused primarily on the legislative branch. So a big caveat to the title of

131

00:33:33.980 --> 00:33:58.970

Marci Harris: of the session. Is that actually a lot of what I'll be showing today is still in Beta testing. So we hope users are gonna love it, but we can't guarantee it yet. We're testing and we'll let you know. You guys know what a chat Bot is we've been talking about it this whole session, so I won't go too deep. But I do want to focus just a minute on some of the key elements of the chat bot

132

00:33:58.970 --> 00:34:26.829

Marci Harris: about large language models that are generating responses. Andy mentioned retrieval augmented generation which I'll dig into in just a minute for anybody who's not familiar, but I can tell by the chat that lots are familiar, so we won't belabor, and I'll jump into some of

these terms that are detailed there. So retrieval augmented generation, which which Andy mentioned is basically just the ability to improve Chatbot responses by using your own data

133

00:34:27.701 --> 00:34:37.040

Marci Harris: with the Llm. To craft the response. So just again to review for anybody who's not familiar

134

00:34:37.100 --> 00:35:01.459

Marci Harris: in order to prepare for retrieval augmented generation, you take your materials. So in the Chatbot, I'll be showing you in just a minute. We took human resources, guides and manuals and best practices, guides for Junior Congressional staffers, and we chunked them. We broke that information down into. In the case of these tools we broke them into paragraphs.

135

00:35:01.560 --> 00:35:21.829

Marci Harris: into chunks, and turn those chunks into vectors, which are basically just very long numbers and stuck them in a database where they are related to each other and can be we can use semantic search to find them so based on the meaning, not the exact keywords.

136

00:35:22.293 --> 00:35:46.979

Marci Harris: And this is what it looks like when someone runs a retrieval augmented generation? Query with a chat bot. So you start over here, the user asks a question. The system turns that question into a vector so turns that question into a long series of numbers, and then goes to the database and tries to find more vectors that are similar to that long series of numbers

137

00:35:46.980 --> 00:35:56.859

Marci Harris: and pulls out a collection of those vectors. Maybe maybe you you set the number at 10 or 15 depending on how you're structuring the chat bot.

138

00:35:57.190 --> 00:36:16.139

Marci Harris: and then you are pulling everything together in the query. So you've got the the vector, of your users question, you've got the vectors of all of the pieces of your information that the semantic search said would be good for answering this question.

139

00:36:16.140 --> 00:36:33.530

Marci Harris: and you've got the prompt, which is your instructions through the chat Bot, of how this query should be handled, and you submit all of that to the Llm. So to Chat Gpt or anthropic Claude or Google Gemini, some of the other Llms.

140

00:36:33.530 --> 00:37:01.499

Marci Harris: And then the Chat Bot uses that information to answer the question. And so this is how to Andy's point. You can begin to address concerns about hallucinations and bias and creativity, as you can see on the slide there. It highlights that when you're submitting a question you can say I don't want this Llm. To make up anything at all. Just pull the answer directly from the documents that I'm providing.

141

00:37:01.874 --> 00:37:26.210

Marci Harris: which helps with accuracy, especially in a government context. So this is a little bit of the back end of how we designed Staff Link, which again, I'll show you in just a minute. So we took all of these manuals and we chunked them and we vectorized them. We're using Openai's Gpt-four as the Llm. And we turned the temperature all the way down

142

00:37:26.390 --> 00:37:38.709

Marci Harris: and said, Do not be creative at all. Only use the documents that we're providing to answer these questions, and you can see, then we constructed the prompt. So here's 1 part of the pro, the prompt explaining

143

00:37:38.730 --> 00:38:03.099

Marci Harris: what the chat bot is the essentially the personality of the Chatbot. You're trained on publicly available information from official sources. This is the way you should answer the question, and then you can see in this, in this second part of the prompt, it really goes deep on the sources that should be consulted. You can see the bold there. Under no circumstances should information be fabricated or embellished

144

00:38:03.100 --> 00:38:14.000

Marci Harris: the audience and tone. So this chat Bot is speaking directly to Junior Congressional staffers providing clear step by step, explanations

145

00:38:14.403 --> 00:38:40.140

Marci Harris: it. It basically says you shouldn't be answering policy questions. You should be sticking to to questions about you know, human resources and other just general kinds of things within legislative branch, and then it gives information about how these resources should be referenced. So I can just give you a look at what that looks like. So you can see here.

146

00:38:40.509 --> 00:38:51.210

Marci Harris: It repeats back that I'm a chatbot trained on publicly available information. You can also see that in several places it says, this is an experimental Chatbot, and that's

147

00:38:51.220 --> 00:39:14.599

Marci Harris: one of the reasons that we, as a 3rd party, nonprofit organization, not within government are working on these chat bots because it's actually lower risk for us to put out something that says, this is a beta. This is an experiment. We're looking for your feedback, because in a lot of cases the the bar for government actually putting out

148

00:39:15.005 --> 00:39:26.339

Marci Harris: public Chatbot, or information. You don't have that much space for experimentation, so I can just give you a quick look at this. So here is Staff Bot.

149

00:39:26.390 --> 00:39:42.320

Marci Harris: You're welcome to play with it at Stafflinkbot org so here, you know, I'm a staffer. I lost my Id. What should I do? It's going to go and tell you you should contact id services. You can stop by this office in the cannon office building. Here's some etiquette tips

150

00:39:42.617 --> 00:40:01.979

Marci Harris: for you to to talk to your manager. Here's an ethical question. A constituent wants to give me \$100 for for giving a capital tour. Can I take it? No, you cannot take it. And so then it goes back and references the Ethics manual, and gives them some polite language for declining the tip. And all of these kinds of things.

151

00:40:02.140 --> 00:40:27.069

Marci Harris: We have information in the chat bot about handling constituent letters. So we just got bombarded with form letters like thousands. What should I do. And then the staff Link bot is kind of talking them down off the cliff and telling them how to handle office overload for thousands of messages and giving them step by step. So you're welcome to play with that you will see that it really is kind of a

152

00:40:27.070 --> 00:40:48.174

Marci Harris: a friend and a coach. Most of the responses here, and with go talk to your manager. You can also click over to resources and see all of the resources that are referenced

in the tool, because again, we wanted to be super transparent and clear about what we were referencing. We also have a frequently asked questions,

153

00:40:49.276 --> 00:41:08.599

Marci Harris: area. And this is actually an aggregated, anonymized list of questions that others are asking. So these are not the exact wording that others are using. It's a sanitized version. It's basically grouping types of questions just to give you a taste of what people are asking. And

154

00:41:08.600 --> 00:41:33.470

Marci Harris: on the about page, you can see there's there's a lot of description about how this works, including that it is open source. And you can come examine the code on Github. So one of the reasons that we built this bot like this is not just because we wanted junior staffers to be able to access the information that they can get through the chat Bot. It was that we want members of Congress and their staff to understand how these chat bots work.

155

00:41:33.470 --> 00:41:44.859

Marci Harris: So this is a demo project for them to understand what rag is for them, to understand how it's possible to construct these kinds of tools for their own use cases.

156

00:41:44.930 --> 00:42:14.150

Marci Harris: and we have a couple of other sample projects that are under development. Again, we're currently testing with all our nerd friends. One of them is a house rules bot. So we built this in 2 days. Once the House rules put out their their new rules, and it's, you know, all kinds of parliamentary procedure, and how to remove name as a co-sponsor. You'll see in here. It's really heavy on citation. So we told it that it really needs to make sure that anytime it's it's

157

00:42:14.408 --> 00:42:29.159

Marci Harris: advising about a rule it's giving the citation of where that rule comes from. But again, if you'd like to check that out. The code is on Github here, and then another one that's really cool that I don't think we have time to go into, but this one is really very much in Beta, but is

158

00:42:29.160 --> 00:42:50.280

Marci Harris: a a more sophisticated Chatbot than than what I've shown earlier is this policy ideation bot, that is helping a Staffer think through potential policies that they might want to introduce. So maybe I wanted to introduce something about let's do making transparent

159

00:42:50.400 --> 00:42:53.500

Marci Harris: chat, bot prompts.

160

00:42:53.940 --> 00:43:10.789

Marci Harris: So it's gonna go through and start to ask me questions about what exactly my member wants to do. Just want it to be clear. I'm gonna be normally, a staffer would give much better information than this.

161

00:43:11.344 --> 00:43:24.350

Marci Harris: But it's it's gonna ask, you know, information about what this member prioritizes just write the policy. And what is important here is that the output

162

00:43:24.850 --> 00:43:30.480

Marci Harris: is oh, it's not even gonna give me. Oh, let's see. We'll say they're on ways and means

163

00:43:31.921 --> 00:44:00.179

Marci Harris: it. It's it needs more information. But but the output is going to be a policy memo, not legislative text. So basically, we wanted it to be just a memo that then could be turned over to the smart Lawyers and Legislative Council, just helping to clarify the kind of policy that the Staffer has in mind. And let's see tax credit. Okay? So you can see over here. It's starting to draft the policy

164

00:44:00.555 --> 00:44:08.060

Marci Harris: and provide, you know recommendations and things like that. But what's really important is that it's also showing

165

00:44:08.060 --> 00:44:32.789

Marci Harris: the resources that it research. So we have Congressional Research service reports, Congressional Budget office reports and government accountability reports in here that it can reference. And so it's going to start to show you. And you can click through on a link which reports it referenced in coming up with these ideas. So basically, this is just a way to kind of help a staffer think through a policy. Again, it's a co-pilot for thinking.

166

00:44:32.790 --> 00:44:36.290

Marci Harris: not a not the designer of policy. So

167

00:44:37.003 --> 00:44:45.010

Marci Harris: just to wrap very quickly our philosophy is to build, to demonstrate possibility, not perfection.

168

00:44:45.010 --> 00:45:09.949

Marci Harris: We again, as an outside 3rd party, can do that. Government can't always do that. But we really think it's important right now for government folks and citizens, and to be able to start to understand the potential of this technology start with low risk internal tools. So that's why we started with the Hr bot for junior staffers. And with the rules bot, we're trying to find the low

169

00:45:09.950 --> 00:45:37.323

Marci Harris: risk potential use cases. So that again, what we're testing is the technology and the use and not so much trying to go through all of the things that Andy and Elise were describing, because sometimes the hard part is not the technology it's navigating the the, all of the trust issues and organizational issues and process issues and approval issues, etc. So we really recommend testing the technology first.st But the really really low risk

170

00:45:38.573 --> 00:45:53.940

Marci Harris: use cases so recommend working with 3rd parties to prototype and test be radically transparent. Show your sources, share your code, anonymize the logs, encourage user feedback and iteration. And final takeaways.

171

00:45:53.990 --> 00:46:18.960

Marci Harris: good bots solve real problems. And we've got lots of low risk, little problems to solve just to show how these tools can work. Trust comes from transparency and clear boundaries. This is not the everything. Bot! It's the house rules bot very, very narrow. This is the the junior Staffer bot. There may come a time where it can be the everything. Bot. But that's not where any of us need to start. Start small

172

00:46:18.960 --> 00:46:38.089

Marci Harris: and narrow test often invite feedback and and just general statement. Public institutions need safe ways to explore and experiment, and I can talk about this all day long, invite you to our site for some resources, and also to reach out on any of the platforms, please.

173

00:46:38.090 --> 00:46:39.799

Marci Harris: and that's it. Back to you, little.

174

00:46:40.200 --> 00:47:03.910

Lowell Weisbord: Thanks so much, Marci, appreciate you accelerating through those examples there. And this has been a really great conversation. We've seen a bunch of a bunch of interesting examples from agpow from across the kind of legislative space in the Us. I think that final point of we're learning. We're experimenting start small like, even, you know, attending this event is

175

00:47:04.040 --> 00:47:29.240

Lowell Weisbord: you're engaging in a conversation about how what we do with this AI thing and how we're going to make it useful to people, which is very much indeterminate, and Chatbots are kind of a ring on a ladder that will look very, very differently in 5 years. So all of these kind of you know, building this technology, talking about it, etc, is really contributing to this conversation. So appreciate the questions, challenges, etc. From everyone

176

00:47:29.390 --> 00:47:48.171

Lowell Weisbord: we have. We have a mix of questions, some broad, some specific, some technical. I'm going to start with a really broad one here with the aim to get get through some of them from Alexandre. What are the key skills a team needs to develop to appropriate these technologies. So I think like maybe the ones that you least expected.

177

00:47:48.570 --> 00:47:52.440

Lowell Weisbord: I'll I'll start off with you, Elise.

178

00:47:54.000 --> 00:48:12.260

Elise Legendre: I definitely cannot speak to the technical skills. But I would say how multidisciplinary the approach to these things are right. So it's about yes, the tech and Marcy. I couldn't agree more with you. It's not about the tech so much as it is about the system and the people and the governance that are still

179

00:48:12.566 --> 00:48:24.530

Elise Legendre: in another era I would say so. There's a lot of those soft skills that are needed, right? That ability to brief that ability to speak tech in a way that non technical people will be able to understand.

180

00:48:24.530 --> 00:48:44.330

Elise Legendre: Speaking about those benefits I saw a question about. You know, there's the filters that are there. It's pretty easy to get the information. That's true. If you're very computer

Literate. And you really know what you're looking for, it's easy, but if you're, you know, if the experience we've had is, we've had folks coming in and saying I'm able to have a conversation, and it helps me.

181

00:48:44.330 --> 00:48:50.830

Elise Legendre: you know, figure out what it is that I need, and whether it's there or not, like, I don't think we can underestimate the different

182

00:48:50.830 --> 00:49:14.340

Elise Legendre: the impact that it has in terms of accessibility and in terms of making the information. We have 400 programs in there. I've had people come up to me after we presented that have been looking up and say, You know what my dad has a farm? A cattle farm in BC. There's 2 grants I didn't know existed. I sent him the information, and he will apply. That's the reason why those things are important, right? We want to maximize those things. So

183

00:49:14.340 --> 00:49:25.680

Elise Legendre: when you talk about skills, it's really about. Nobody has the answer. You will need a multidisciplinary approach to advance these projects and to make them all they can be.

184

00:49:26.270 --> 00:49:51.100

Lowell Weisbord: Yeah, I really appreciate that point. And I think it touched on kind of another question, which is when a broad one, that I think we've been kind of circling around with this? This event is, when do you do this? And when do you find other solutions? And there's been, you know themes around distilling large pieces of information and answering Marcy, I appreciated your you know, more detailed explanation about how a retrieval augmented generation system works, and

185

00:49:51.200 --> 00:50:07.910

Lowell Weisbord: you know how we're really building these things from your perspective, Marcy, where? What's the heuristic, or what's kind of like? If you had to put it in a sentence, when is when would you build a Chatbot? When would you use a search and filter system? Or how how do you think around that problem?

186

00:50:09.372 --> 00:50:14.279

Marci Harris: Yeah. And I was just noticing actually some of the questions in in the Q. And A address.

187

00:50:14.360 --> 00:50:42.520

Marci Harris: this question of kind of institutional knowledge. And for Congressional staff. I'm former Congressional staff. Our whole staff are former Congressional staffers. So these are problems that we feel very deeply. One of the problems is that there is such massive staff turnover. The average Congressional staffer time on the hill is anywhere from 2 to 3 years.

188

00:50:42.520 --> 00:51:01.130

Marci Harris: So people are coming and going all the time. So one of the issues that these kinds of tools can help address is is being able to just ask a question that then points you to the manual where you can find you can have a deeper dive. So I think

189

00:51:01.480 --> 00:51:30.990

Marci Harris: we're really all learning that probably best practice with a lot of these tools is not to look to them for the answer, but to look for them as an assistant, to help you find where to go, look a little more deeply. And there was also a question about kind of the maintenance of these. And again, I think this is where these kinds of tools become super helpful, because, you know, when a new Hr manual comes out, or you know, when the new house rules come.

190

00:51:30.990 --> 00:51:59.299

Marci Harris: It's not that everybody sits down and immediately goes through and reads page by page, and notices that actually, on page 19 there was a change from last year, and very few people have the capacity to actually retain that kind of information and to recall it when they need it. And so that's something that these tools do quite well. And I think, especially in high information kinds of environments like government, where you're dealing with a lot of regulatory issues. You're dealing with a lot of

191

00:51:59.669 --> 00:52:14.830

Marci Harris: compliance and procedures they become really helpful, and again, can be designed kind of like I was showing with the the Crs Gao. References to point you to where you can read and get more information to go deeper.

192

00:52:15.180 --> 00:52:26.039

Lowell Weisbord: Yeah, yeah, and appreciate that a lot. I think, just for folks to not glance over that 1st point. Which is, it can be used in the same way as search. And I think what a lot of people probably don't know is that

193

00:52:26.040 --> 00:52:46.040

Lowell Weisbord: most great search boxes on any website today are actually using the same vectorization technology that you use in a chatbot. It's both doing kind of traditional keyword search as well as vector search using an Llm to encode your search and find the things at the exact same time. So sometimes, when you actually are just using normal

194

00:52:46.040 --> 00:53:03.600

Lowell Weisbord: search, you're actually essentially using the exact same technology we're talking about here. It just might not look like a Chatbot, which is, which is maybe one of the maybe one of the questions here, but also worth the kind of user problems definitely overlap. And the solutions also overlap

195

00:53:05.520 --> 00:53:23.469

Lowell Weisbord: there's a question here about bias and hallucinations from Nick. I think both things that come up a lot obviously really important in the government context. I guess to narrow that down a little bit more, Andy, when you kind of got into that testing phase of your implementation? What? What were

196

00:53:23.470 --> 00:53:44.180

Lowell Weisbord: the real challenges that came up? Where did you know? How did you deal with hallucinations. Did you? You mentioned the piece on bias of, you know, having more references to men, perhaps, as farmers in the in the data that you were using to ground to ground that tool. So I guess, yeah, just more specifically, maybe, how what bias came up for you? How did you deal with it? What were the interesting challenges.

197

00:53:45.060 --> 00:54:08.459

Andy Fan: Yeah, absolutely. Thanks for the question. I think. When we actually 1st started building out our prototype we didn't. We actually didn't implement retrieval augmented generation. And at that point I'm not actually even sure that there was a name for for that, and it had converged to retrieval augmented generation. I think different people were calling it different things at the time.

198

00:54:08.460 --> 00:54:32.430

Andy Fan: And so we realized that there was, like, you know, this, this real gap between users asking questions, and then the chat bot, or the large language models because they're trained up to like a certain date right like this has changed a little bit with some of the search capabilities with Llms now, but at the time there wasn't a way to to surface the most recent or the latest information

199

00:54:32.430 --> 00:54:38.570

Andy Fan: information, or maybe the information that it was grabbing was from something unrelated, right? So it was hard to like. Sort of

200

00:54:38.750 --> 00:55:03.700

Andy Fan: put those guardrails on there, and that's how that's why we looked into and implemented something like a rag system in order to be able to 1 point it to a specific, curated, highly looked after collection of data that we know was of good quality and could help and could, which essentially helped us dispel and reduce the like

201

00:55:03.700 --> 00:55:28.149

Andy Fan: of hallucinations. You know it's not, you know, there's never anything as a 100% bulletproof way to do it right. And so the other piece, and I think, like going back to the trust aspect of this is to ensure that you're communicating to people that you know this is an AI system, you know, mistakes can happen and to check for it. But there are these like technical things like rag that we can implement to improve our probability of success.

202

00:55:29.620 --> 00:55:55.299

Lowell Weisbord: Yeah, brilliant. And we saw that in in the Ag PAL example as well as like where we see the resources linked in the final example from Marcy. You can. You can point to where the information is coming from, which is like a technological advantage of using this kind of approach versus a standard Llm. Perhaps we are like. Unfortunately, I think we could do this Q. And a. For 2 more hours. We're getting so many great questions, especially as as we get towards the end. Unfortunately.

203

00:55:55.300 --> 00:56:07.499

Lowell Weisbord: I'm going to start doing wrap up. But I'm going to ask all 3 of you, for, like your one sentence piece of advice for what people to think through in just a minute. But as we kind of get

204

00:56:07.510 --> 00:56:25.550

Lowell Weisbord: to the end here, we'd love some quick closing feedback from everyone. We usually ask on a scale of one to 10 just rank. If this event was valuable use of my time, it helps us make useful content for all of you, and kind of we don't want to waste public servants. Time, which is severely lacking.

205

00:56:26.820 --> 00:56:47.399

Lowell Weisbord: As you respond to that. We know there were not lots of questions that we didn't get to. And we want to kind of keep that conversation going. We have an AI and government community on Apolitical, which is free, and encourage everyone to join and kind of keep the conversation going there, encourage our speakers to jump in as well, and see if there's any kind of follow ups that you might have.

206

00:56:47.510 --> 00:56:49.450

Lowell Weisbord: or to go into more detail.

207

00:56:49.880 --> 00:57:07.339

Lowell Weisbord: Finally, I want to let you know about the rest of our upcoming events program. Many of you might be here because you have a specific interest in AI which we have lots more AI. Events coming up. I think you kind of can't quench the thirst of how much innovation and action is happening in the space

208

00:57:07.480 --> 00:57:23.619

Lowell Weisbord: panel discussions, masterclasses, really diverse set of topics, especially with some of the questions around ethics, the environment. We covered some of this check out some of those events in the link below as well that my colleague just hit

209

00:57:23.970 --> 00:57:38.180

Lowell Weisbord: back to our speakers one sentence, takeaway, that you kind of piece of advice that you'd give folks who are thinking about building an AI Chatbot who want to know, where do you start, or where do you go, Andy? You're popping up first, so I'm going to pick you.

210

00:57:38.860 --> 00:58:04.739

Andy Fan: Sure. Yeah, I think this echoes a lot of the thoughts that Elise and Marcy had put forward. But I would just say, to think big, but start small. You know, you want to be able to demonstrate value on an iterative process, on an iterative cadence, and then be able to leverage that the momentum of that demonstrated value. To to to, you know, like, you know, sort of leverage network effects and you know, make it something truly truly great. So that's all for me.

211

00:58:05.070 --> 00:58:08.130

Lowell Weisbord: Brilliant. Think big, start small. Elise.

212

00:58:08.340 --> 00:58:27.000

Elise Legendre: I'm a chief data officer. So I'm going to say, make sure that you do your data management and your information management properly, because that's the key to solving a lot of the issues going forward. So I heard someone say, Eat your data vegetables before you get your AI dessert. And I think that's an important place.

213

00:58:27.000 --> 00:58:45.749

Elise Legendre: It's not a magic wand, but it's a fantastic tool that can really help lift ourselves off the grind sometimes, and we need, as a public servant to remain relevant, to be able to manage and use that tool in an ethical and responsible way. We owe it to our citizen.

214

00:58:46.300 --> 00:58:52.439

Lowell Weisbord: Eat your date of vegetables, we can put that on a T-shirt. Finally, Marcy.

215

00:58:52.810 --> 00:58:56.089

Marci Harris: I second all that was said. I know we're at time. Thank you so much.

216

00:58:57.230 --> 00:59:20.430

Lowell Weisbord: Oh, okay, brilliant. Well, thank you all for joining today and appreciate you all taking the time. We hope you found it helpful, useful, informative. Keep the conversation going. Keep an eye out for an email coming your way with today's recording resources, and we hope to see you at another event very soon have a great day and bye, thanks again to our speakers. Big round of applause.