Recording: <u>https://youtu.be/eCnhmHRzEyl</u> Resource Center Link: https://wpengine.com/resources/webinar-plugins-dos-donts-and-downloads/

LEXI MOSTEK:

cool. Hello, everyone we are gonna go ahead and start our webinar. I got a message for some love for Tim Mcgraw. I am headed to Nashville for the holiday weekend, so thought I'd regain with a little country music.

Thank you to everyone that is joining us for this webinar. This is our part 3 of our webinar series on Plugins, Do's don'ts, and those to download now. This series has been incredibly exciting and fun to host as someone in WordPress. But I think we are just about to start the funnest topic. Which is artificial intelligence plugins. We've got a great panel here. We've got some spicy topics and not spicy topics to talk about and we're really just here to have fun. So if you haven't caught the rest of these sessions we have recorded them, and they're viewable on the <u>WP</u> <u>Engine Youtube</u>, as well as on our resource center.

So the first of these was more of like a general plugins, one on one and then last week we talked about e-commerce and woocommerce plugins. And then today we are going to talk about artificial intelligence plugins. So just a quick overview of what we're gonna cover. I'm here to just do some brief introductions. I'm then gonna introduce your moderator and host for the day. James Dominy. James spoke at Wordcamp, Europe, and had kind of a great talk, and I'd love to just pick his brain for a few minutes on AI, and then we're gonna intro this amazing panel. Every single one of them has their own views, but also several things to talk about in AI.

Just a couple of gentle reminders. We've got the Webinar chat, please can continue to contribute to the conversation there. But if you have any questions for the panelists, we will be taking those towards the latter half of the webinar. There is a question and answer feature within zoom. So drop any questions in there. It's much easier for us to kind of track and keep our eyes on questions there. So with that, this is our panel. Lovely gentlemen and women. We are going to just start. I'm gonna ask James some questions, and then I will let the panelists introduce themselves and kind of talk about their tie to AI. So with that being, said James, I'm gonna add you up to the spotlight so that you are here with me.

James, can you just kind of introduce yourself and tell me like, what is your relationship with artificial intelligence?

JAMES DOMINY:

Sure! Hi, everyone! My name's James. I'm a technical architect with WP Engine. I mostly work on the hosting side of things almost exclusively. So I suppose AI in my very wending, wandering career to get to WP Engine. I once upon a time studied bioinformatics in a large part of that, was studying what back then, I suppose, was called machine learning, but is closely related, depending on whom? How? Who you speak to? Actually the same as modern AI. So I have some sort of formal training in AI modeling. It's by no means up to date. This is sort of 10, maybe 15 years ago. I have birthday coming soon. But yeah, beyond that, I suppose. Like, obviously, it's always been a point of casual interest for me. I am a computer scientist by training and the bio the biology, bioinformatic side of things was sort of a branching out of what I originally intended to do But obviously the AI aspects of bioinformatics fascinated me. Probably the most.

So yeah that I suppose, sums up my relationship with AI. User sort of understand a fairly good at an educated guess. Occasionally.

LEXI MOSTEK:

I think we've all kind of become dabblers in each and way in AI and and kind of working in the tech space. Now, James, I know you spoke at Wordcamp, Europe. You hosted a workshop. But can you just tell me a little bit about what the key points of your talk were? I know this session was recorded. But the recording is not out yet. But tell me just a little bit about your session.

JAMES DOMINY:

Sure. So the title of the talk was how I learnt to stop worrying and love my new AI overlords channeling a bit of the Simpsons there. And of course, computer sellers. Basically. My, take on AI, III had one of those sort of like shower thoughts or bathroom moments a couple of months before the word camp. And it was like, you know, the bit that we aren't talking about is that sure AI is great and everyone's scared that it's gonna take their jobs. But it's not really there yet.

And the bit that worried me the most was that it's moving fast. And it's not gonna take our jobs. But it is gonna make entry level jobs or the jobs that you need. Let me rephrase entry level tutorial level jobs and I don't mean I don't mean jobs necessarily in terms of earning money, but that too sort of when you're getting into a new field. Specifically WordPress. You know all, all of the easy stuff that you learn wordpress by doing and making mistakes on. That's the stuff that AI is pretty good at already.

And the whole sort of theme of my talk was, we need to be careful in wordpress community that we make sure we don't like knock the rungs out of the ladder behind us. Cause those of us who are already making our incomes from wordpress are in a place where we can adapt. We can use the tools. We've already made those mistakes and learnt those lessons, and are in a good position to supervise the outputs of bad AI now. People who are getting into it now, like today and in future generations of wordpresses, they don't have that advantage. And there's this kind of catch 22 situation where we're going to have to learn from scratch to use AI by not using AI, so we can supervise AI.

LEXI MOSTEK:

Really, I think I think, as we jump into this panel, everyone's got a lot of thoughts and feelings on that. And James, lots of love in the chat for the title of your session and the doctor Strange love reference. If y'all haven't met James, he loves a good movie reference. So lots of love there. Okay, well, ready to jump into kind of just our brief slides on AI overview. And I will let you take it away.

JAMES DOMINY:

Sure. Great. Okay. So just to be very clear. This is not a webinar about going through an exhaustive list of all the plugins that are tagged Al in wordpress.org, or all of the Al services that integrate with wordpress. But I just want to sort of lay out some general sort of areas where Al is clearly being used. Call out one or two plugins on wordpress.org that are working in that space. It's not necessarily an endorsement. It's just mostly they're gonna be the more widely known ones. Or they, you know, piqued my curiosity as I was going through the list.

So the obvious ones are. Chat bots, streamlining tasks, SEO copywriting, image optimization, content creation, etc. And you've got in the content generation. You've got <u>Imajiin Bertha Al</u> <u>jetpack Al</u>, sorry image generation would be <u>Imajiin</u> apologies. Accessibility, e-commerce optimization. So the ones that kind of piqued my interest there. There's one called <u>pricimizer</u> which is basically using AI to AB test your price points. Which scares me personally as a potential customer. There's <u>Wootomation</u> which is an AI thing to facilitate Amazon style "If you bought this, You might be interested in that" upsell suggestions.

<u>Botowski</u>, which is sort of a way to use AB test your product descriptions and see if you can generate more sales. Another one of interest in the comment moderation thing, which I forgot to add to the slide here, but I thought would be useful, because it's another thing about AI that I'd like to talk about is the plugin <u>SeriousWP Toxic Comments</u>, which is an AI filter for filtering out hate, speech, offensive speech. Toxic comments in your comment feeds. Another thing. personalized experiences, and more.

I want to say I'm going to dive into the "and more" a bit because there's 2 or 3 more things. Like AI and Wordpress has been around for, I'm gonna say, 6 months for real or probably about a year. I'm pretty sure that the moment Chet GPT. Came out with an API, someone started working on a plugin. but we've definitely got to the point now where we're seeing AI spam spamming out plugins because there are 2 plugins in wordpress.org that have the exact same description, but different names, and it's not clear what they do today.

So that's something interesting to chat about later. And then a couple of misses where I haven't seen Wordpress and AI plugins. There's nothing on the Education side, that I found and there's nothing on the sustainability side. How do I make my website more power, efficient, greener, faster. Etc. So yeah, like, AI is here, but it's not all there yet.

Lexi! Next slide, please. So I mentioned <u>Imajinn</u> earlier. It's a photo generator. It is integrated them to wordpress. And one of our panelists developed, Imajinn. Thank you. Sorry. I totally mind blank there for a second. Yes, thank you. Aaron. So Aaron developed Imajinn and we will be digging into that process a little later.

Then there's <u>Bertha Al</u> Also created by someone here. I believe, I might have got that research wrong. Anyway. Betha.ai is another deeply integrated thing that is a content generation Plugin and also allows you to create images. So it's using sort of the newer multimodal Al backends. But both image and text generators.

Next slide, please. And then, of course, the call out to, I suppose probably the most popular. If you just go on. The fact that Jetpack is one of the most popular plugins generally. But the <u>Jetpack AI assistant</u> which was announced just before Woodcamp EU. 2023. So that was big news when I was at Wordcamp as well.

Again, integrated, able to generate content on demand and in the nature of all sort of chat style, ais also capable of sort of saying, Well, hey, can I make this more formal? No, I prefer this to be a little less tone adjustment, as it's called. thanks.

So then a slightly different flavor of plugin is <u>codewp</u>, which specializes in helping you write. Wordpress plugins yourself. I believe it was trained on the wordpress codebase. So it's actually specialized as opposed to sort of a general code plugin like github co-pilot. And so part of my talk at Wordcamp EU was, trying to get Chat Gpt to write its own chat Gpt Plugin for Wordpress.

Which, considering the point of my talk, was kind of AI is not there yet, and we don't quite need to worry about it. It's spectacularly failed at proving my point. I have not had a chance to try Code Wp to do the same thing, one day.

Next slide, please. Okay. And with that I'd really like to introduce you to our speakers. We've got Phil Crum, Aaron Edwards, Nyasha Green and Rob Howard. I'm just going to go in the order of the pictures on the slide here, and if I may, I'd like to ask each of our 4 wonderful guests to introduce themselves. Could you give us like a brief the 30 second intro who you are where you work, what you do and if you can fit it in what is the most exciting application of AI that you've seen use so far ideally as a wordpress Plugin, but not necessarily. So, starting with Phil, take it away.

PHIL CRUM:

Absolutely. Thank you, James. And Hello, everyone. My name is Phil Crum. I'm 10up Senior Vice President of marketing and growth, based out of a suburb of Las Vegas, Nevada.

I wear a lot of different hats in my role, mostly responsible for working with our new clients, working with our partners, trying to help our organization. Think about how we can embrace technology and keep moving forward. Probably not a surprise. Artificial intelligence in this entire ecosystem has been a major area of interest for us over the last year. As we think about, how it can improve the way that we do our work through developer oriented experiences, how it can improve the way that content creators create content.

We're a full service agency. We specialize in finely crafted websites and tools for content creators. So the content creation experience is very close to our heart, and of course, thinking

about what it can do for the reader experience as well. We have our own Plugin <u>ClassifAl</u> plugin com. That is kind of a sandbox for a lot of these experiences, and broadly, I'm very excited about different tools that help content creators work more efficiently. I'm sure we'll get into what I will confess, is my skepticism for some of the other applications of AI, at least as it exists today. But there are, I think, very real impacts that can make content creators life better. And we're just beginning to scratch the surface of what we can do with this tech.

JAMES DOMINY:

for sure. Great, thank you, Phil. Aaron, take it away.

AARON EDWARDS:

Yes, I'm Aaron AARON EDWARDS. I'm based in Dallas and I started in Wordpress way back in 2.6 as a Plugin developer, and then eventually became CTO of WPMU Dev and served there for more than 10 years. And just recently I moved to an advisory role there, so that I could focus full time on my own projects.

Which have been very much centered around AI. So I released <u>Imajinn</u> aI, which was the first AI image generator, Plugin. As soon as stable diffusion open source model came out, I launched that, and then more recently, I've been working on <u>Docs Bot AI</u>, which allows you to train custom chat bots on your company documentation and your wordpress content and site, so that you can have a frontline support agent, frontline pre-sales and and all those kind of things right on your site. So

JAMES DOMINY:

great. Thank you very much, next up Nyasha.

NYASHA GREEN:

Hi, everyone! Good morning. Good morning. I'm sorry I lost my voice, so I'm talking a little low, but I am Nyasha. I'm a full stack Wordpress developer. I'm also an instructor at Linkedin learning and under. While I was editorial director of Master Wp. I got to do a series of articles on the ethical and moral implications of AI. So I'm kind of an AI fan, because, of course, I grew up as a Sci-fi Star Wars, Star Trek child. But also I want to look at how we can use AI in a moral and educational way.

And 2 plugins that I really like, and I'm not just saying this because Rob is here. 10up is here. But I really love <u>everyalt</u>. It's been something I have not only used on my sites, but put on my freelance sites as well. I just love it. It generates alt text, or helps with it for images, I think, combining it also with 10up's, <u>classifie</u> or class Is it class?

Is it classify Classif AI. I was reading, classify AI. I really like that it will automatically. Well, you can set it to generate audio from your text and vice versa. I think it's gonna be a really big win

for accessibility, and I'm all about trying to learn more on accessibility. So those are my 2 favorite ones right now.

JAMES DOMINY:

Awesome. Thank you. And last, but not least, ROB HOWARD.

ROB HOWARD:

thank you. Hi, everyone. I'm rob. I am. My company is the developer of <u>everyalt</u> which Nyasha just mentioned. You can also find me at <u>innovatingwithai.com</u>, where we do a lot of education for both developers and non-developers about how to sort of get into AI from a business and career. And you know, basically future proofing your career standpoint. So you know, we sort of see that as part of our mission, you know, with Master Wp, with our agency of bringing more voices into tech. Well, we want to also bring more voices into what we think is sort of the next generation of computing, which is AI so more education and more you know, ways for people to get involved and get ahead.

I think it's kind of a unique moment right now. Kind of like, if you were learning HTML in 1993, you have a head start on a lot of people who came in a decade later. So like, I was fortunate enough to like do that as like a pre-teen basically in the 90s, and I think you know, get a head start. And I think there's a lot of opportunity now, 30 years later, to you know get in on not just the, you know, coding and programming, but also the sort of core knowledge around, like, what is machine learning? What is really happening under the hood when you're seeing some of the stuff that can appear magical right? And you know, Parlay, that into the future of your career, the future of you know, working on these products.

And you know, as Nyasha mentioned, with kind of the overarching goal of making sure that we're not just letting this stuff sort of go off the rails in the future. But we are, as the current you know, developer community being very careful and thoughtful about how we implement it, when we implement it and how it grows.

Because ultimately, you know, the people who are involved in building this stuff and putting products out to market are also going to shape not only how people think about AI, but sort of what the guardrails are on the future of it. So it's kind of a big, big project, and a many, you know, years and decades long project. But you know, we're here now, as you know tech fans and tech sort of producers in various capacities. So I think it's largely on us to do a good job with the AI driven future.

JAMES DOMINY:

Excellent! Any particular picks for an exciting AI use there?

ROB HOWARD:

Oh, yeah. So one that I've been using that hasn't been mentioned is called <u>summarizes</u>. So it is the word summarized with an S at the end. And it is in the plugin repo. There's a free and a premium version. And you know, basically it does a variety of different ways to summarize your

content. So this can be something for an excerpt, something for Meta description. And I think that has been a really cool use of language models that we've actually done elsewhere, like we actually did this with our slack, like, like our internal company, slack where I said, hey, summarize this, you know 20 comment Slack thread between 2 of my employees, so I can read it in, you know. 10 s. And that is cool.

The other thing that I've been using every day, is not a wordpress Plugin, but you know, because we're all on Zoom Meetings every day. I think we'll all be able to use this. It's called <u>Fathom</u>, and it records your video transcribes your video and produces an AI summary of all your Zoom Meetings, and what's cool about it is, it's like 10 times faster than the actual zoom recording. So you can literally just send it instantly after the meeting, which for me makes a huge difference, because, you know, I had a meeting an hour ago. I've got another meeting an hour from now, and being able to just like quickly get that share link and send it to my team after the meeting means I'm not. Then switching back to that previous meeting 15 min later, when I get the email that zoom is done.

So that's really cool just from a speed standpoint. But also you can do things like, press the highlight button. When your client is saying something important, it will then look at the like 45 seconds around that highlight and summarize it for you in the Transcript as like a sidebar.

So there's so much stuff like that where it just dramatically speeds up my day to day note taking. And basically, you know, eliminates my need to do note taking, which is good for my brain, because it's hard for my brain to to switch between like a sales call like I can't take notes and be on a sales call and be on a development call, and all those things in the same, you know few hours.

So fathom is cool, <u>otter</u> I see in the chat is similar to it. There's also one called <u>grain</u>, which I believe is audio only. So it's a little bit less full featured. But it's also less intrusive. I also think Zoom is gonna buy a few of these in the next few years and make them more integrated into zoom. So video recording and transcription is something that. I see kind of as very big for my own productivity. Even today.

JAMES DOMINY:

Super handy. Thanks. Okay, I'm gonna kick off into the actual questions. Now, if you don't mind. and first one, I'm going to direct it, Phil, but like I want all your opinions on all of this. So <u>ClassifAl</u>. Phil, can you tell me a little bit about how you got to the place of creating it? And most specifically, I suppose I want to start addressing you know the obvious concerns with AI.

How are you making sure that it is being trained right? And it's giving the correct answers?

PHIL CRUM:

good question, and a million dollar question here. So <u>ClassifAl</u> is, I think, at this point a 3 or 4 year old Plugin that was actually inspired by work that we were doing for a client. So it's called <u>ClassifAl</u> because the original feature set was focused entirely on classifying content. At the

time, you know, back in the old days IBM Watson, Microsoft Azure had a few different Al services that they're a lot less powerful than many of the services that we'll be talking about later today. But they did a very good job of helping put content in their pockets. Basically, we were working with a client, a big legacy publisher who had 140,150 years of archival content, and as part of a redesign and rebuild and a re-platform to wordpress. They wanted to completely rethink the way that content was organized. We're talking several 100,000 pieces of content, so there's no real reasonable way for somebody to go through and manually curate all of those.

And we realized that AI was a very, at that point, an interesting and potentially useful tool to help us take that old library of content, put it into the right categories based on the site's new information architecture and get us 95% of the way there. We still did some manual curating for higher volume content, or things that were kind of cornerstone pieces of the archive, but really leaned heavily on AI.

It works really well and 10ups general spirit and ethos is when we build something that we think is reusable across different problem spaces and different clients. We do it as a 10up investment. We don't charge the client for it and, re release it as an open source. Plugin. That's the genesis of <u>ClassifAl</u>. That's the genesis of many of our other plugins, like <u>distributor</u> and <u>elasticPress</u> that aren't Al based as well

Over time, that plugins continue to grow, and we've continued to evolve it. And as we've done that, we started to think of applications of AI in the wordpress ecosystem is sitting into one of 4 buckets. There's developer experience things like Github, copilot or WP Codebot that help developers and engineers work more efficiently. There is what I'll call editorial enablement tools. How do you as a content creator, work faster? There's content generation, self explanatory. And then there's reader experience focus tools, things ranging from chat bots to content personalization.

We have focused <u>ClassifAl</u> primarily on editorial experience and editorial workflow improvements. We think that there's a lot of opportunity for AI to help content creators work faster and do better. But under the hood there, there's still this ethos of I'll say, human empowerment rather than human replacement. As content creators. It is creative work, it is art. There's a lot of brain power involved in writing and even imagining good high quality content.

We're very skeptical about AI's ability to replace that. But we do think that it can make some of the more menial tasks in creating content, writing a summary, creating an audio transcription. So the content is more accessible, making sure all text is present on every image, making sure the content is categorized well, adding things like SEO titles and SEO descriptions that are very important, but kind of tedious to write and provide that first pass of that for the human Creator.

The intention there is still for humans to be involved in the process. Right? I as a content Creator, I'm now a reviewer rather than somebody who is writing and editing and reviewing and publishing so that I can focus more as a content creator on the higher value work. We have thus far made a deliberate decision to avoid things like content generation mostly for 2 reasons. One,

I'm sure others here will have a different perspective than me. But that space of technology is still very nascent, and still both very prone to error and very prone to real problems as far as bias goes, as far as perspective goes, and as far as homogeneity goes right, you get a lot of the same output. It has a very particular tilt and slant to the angle of it, which may or may not be what you want editorially, even if it is what you want editorially, it is problematic in the spirit of creating a diverse and open web. Right?

We are skeptical and how much that will continue to evolve in the long term. You know, we're open minded as technology gets better as we get better at training these data sets as we get better at understanding some of these implicit and explicit biases, and how exactly we can help the technology defend itself against that. But for the time being we have made a deliberate decision to kind of steer clear of that space. We think, at least for the enterprise publishers, that we work with that. That ecosystem is just a little bit too new for the trade offs to be worth it.

So by focusing primarily on the human assistance angle. You still have that angle of human review which I think is essential in any AI application. And you're working in a problem space where I don't wanna say that those issues of bias and those issues of the reliability of training models entirely go away. But it's at least a little bit more of a controlled issue. You know you're still writing the original content. You might be using AI to help you summarize it or help you simplify the language. So it's more accessible to a broader audience.

But you know the intention. You have hopefully been researching and fact, checking your own content. You, as a human can provide a layer on top of that.

JAMES DOMINY:

Great thanks. I think that actually leads me very much into the next question, which is for Nyasha. who has written several blog posts on Master on ai at masterwp.com.

It's clear that you have some reservations about AI. I think Phil has expressed some of them already. Can you expand on those a bit? Do you agree with Phil? Do you disagree at some point?

NYASHA GREEN:

I agree with Phil. 100% I think that it's exciting technology. Again, as an AI sci-fi child, I was so ready when Chat Gpt released to play with it, and I've done so many things with it, and I think it's very helpful. But the biases that are there, and the ethical implications that we see in the news from different things that chat GPT is done will open AI, because that's Dolly, too. I was. Gonna say, Dolly, but they're just so massive and even using some of them, as you'll see in some of my writing especially the image generating software. It's so biased. In the ways of race and gender.

We talked about st Master Wp. When I did, Lindsay, AI. And a lot of my friends, the women. You could be fully clothed. The women would return without clothing, sometimes in their pictures, which was odd. And, you know, talking to men who did it. It was like, no, so I'm with Phil 100%

while I am a fan, and I'm still navigating it again. I wanna find that ethical boundary because is there ethical consumption under capitalism? But I wanna find it. And I'm still going to experiment with it. But the biases are really great right now.

JAMES DOMINY:

Great. I suppose bringing this back to Wordpress and plugins. Do you have any concern like? Are any of the concerns that you've expressed specific or not specific to wordpress, but specifically applicable, like exacerbated by wordpress for one of the better word pluginifying things?

NYASHA GREEN:

so far. No, but I'm sure that it's there, because a lot of our base based off openen AI and so yeah, I'm sure that there any specific ones I can't call out right now. I'm not being shy. I just can't. I would. But fair enough.

JAMES DOMINY:

Okay, great so kind of continuing in that vein, Aaron, AI has a bad reputation again, for sometimes not producing the right answers. We've talked quite a bit about that in cases where you training an AI model yourself. Like with <u>DocsBot</u> ai a I thank you, Doc. I wanted to say, never mind. Never mind tongue posters. How do you think AI can be trained more accurately to answer a question about product or services. Yeah, II suppose that's le. Let me leave it there. I'll begin out of it for sure.

AARON EDWARDS:

So so one of the biggest issues that people run into with these large language models like Chat Gpt is what we call "hallucinations" to where it can very confidently lie to you and make up facts and and things like that that are just not true, but very convincingly, are true to human eye without doing their research. So that's something that we constantly have to be careful for and for a product like mine <u>DocsBot</u> which is designed to like, answer support questions for your users, for your customers. You obviously do not want it making up facts about your product or just making up answers. So right? Yes.

So we use a a fairly new technique called retrieval augmented generation, and essentially the easiest way to describe it is if you took your document and then pasted it in chat gpt, and then asked a question about it. And so that way, it has the context from the documentation that you wrote already to be able to answer the question. And that's kind of what we do. It's much, much more complicated. But we scan all your documentation, all your wordpress website, all that content and then use different AI techniques to try to identify. When you, when a customer asked a question, try to identify. Okay, what little piece of your documentation is most likely to contain an answer, and then we pass that into the back end to chat GPTs so that it can answer the question with some context with some facts to be able to answer from and that's kind of the the whole product in a nutshell. So that's one technique.

There's other techniques that are just being experimented with, like fine tuning for AI to where you fine, tune it with maybe patterns of how you want it to respond with previous conversations, or the style, the tone of voice that you want. Those are very new technologies, and there's very few products that have taken advantage of that yet. Kind of a new frontier there. But it's a way to give content, generation or or answering, and that kind of thing. Your own tone, your own voice to have some better control that way.

JAMES DOMINY:

Awesome. Thanks. moving on to Rob. So your company has 2 AI products on the market. <u>business English</u> and <u>everyalt</u>.

ROB HOWARD:

Yes, neither of them are focused on content generation. Can you start off by telling me a little bit more about them. What they do. Yeah, absolutely. So. <u>everyalt</u> is both a wordpress Plugin and an independent Api, so you can plug it into anything. We're actually probably building a chrome extension right now that I just talked to some people at work camp about last week. And then, you know, we have people who want to build it into Kajabi, which is a course platform, etc., etc.

So basically, you hit our Api with an image like a Jpeg. URL. We are then going to send back to you our best recommendation for what the alternative text of that image should be, and I'll talk a little bit more about sort of how we handle the hallucination, and like incorrect answers, questions in a second.

And the other one is called <u>business English</u>. It's intended for people who are working day to day in English with clients who speak only English in some cases, but want to really take that sort of next couple of steps up into fluency. So this is something that you know, a lot of our own employees and contractors deal with on a day to day basis. And you know, anybody who learns English as a second language knows that getting to 80%, might take you 2 years, but getting to 100 might take you the rest of your life right? So there's so much of that nuance and and challenge there.

So what we built that as both a slack app and a chrome extension. And basically what you can do is give it a few different contexts like, for example, I wanna send a chat. I want to send an email. I want to send a social media message and just feed it whatever you want. It can be your own English, even if you're not a fluent speaker. It can be something in another language like Spanish or Hindi, and it will give you back what we think is, you know, the best sort of like professionalized "office business English."

And you can use that as you see fit, you can edit it, etc. But the idea is that it's almost like a universal translator in some ways for the office setting. so to touch on a couple of the things that that we talked about in the last few minutes. You know, <u>everyalt</u> doesn't really generate content. But there is a challenge around accuracy in that right? And there's also challenges around bias and training the data correctly. Right? So you know, they call it red teaming right? When you say, Hey go, break this, make this, say something offensive. Make this give you something that

is like flagrantly wrong. Right? So you know, the image recognition tools have gotten a lot better in the last 5 to 8 years. It's actually one of the older types of AI, and it even dates back to like Captchas like, Show me all the click on all the crosswalks. Click on all the motorcycles. Right? That's all. Basically, feeding image generate image recognition models. Right? So there are a bunch of high profile issues with just like miscategorizing human beings as things that are not human beings, which obviously was a problem back in like the 2015, 2016 era when this is coming out. But we wanted to make sure that we weren't like running into similar problems with everyalt because you can upload an image of anything. Right? So one of the things that we read teamed.

Well, first, I'll say the philosophy here is like, you must accept that this new technology is going to have errors. Right? So the question is, do you want to not use it? Or do you want to become the person who has expertise in solving the most difficult problems which are the errors that Al is producing. So for the folks that are here watching, I wanna inspire you if you're interested in this, not to set it aside until the errors are solved. But to be the person that solves those problems right? And that's an area where you don't have to be a perfect like amazing Coder, like you don't have to.

You know, be super advanced at this, but you want to bring your unique subject matter expertise. Mix that in with the AI that exists today and then create something that produces a better result than anyone else has produced before. So that sort of mixing together of your unique skills and expertise and perspective with the imperfect tools that exist. To produce something that is better than the sum of its parts is an opportunity, I think for everybody who is even adjacently involved in wordpress or software to like do really cool stuff here, so specific to <u>everyalt</u>. You know, one of the things that we worked. We did a lot of custom coding on right? So we're not just taking what the AI gives us and spinning it out. We're actually post processing everything.

And one of the things that we pro post process very heavily was references to gender and physical appearance, because what it will do is, it will say a woman with glasses or an old man holds a baby and stuff like that. And what we realized is that those are areas where, inaccuracy can cause major issues and actually cause you to not want to use that software anymore. Even something that is, you know, as simple as categorizing someone as an old woman versus a woman like maybe I don't think I'm old, right. Maybe I don't want you to be saying that about me in the alt text or whatever. So you know with stock photos, it's not as big of a deal. But once you get into like photos of real people like it can be an issue right? And then it would do thing. Weird things like focus on a person wearing glasses, or a person wearing shoes and stuff like that. And it's like, Okay, like that comes off as just like nonsensical in some cases, cause that's not a big component of the picture that you're wearing shoes right like that's kind of assumed. But that was coming up a lot.

So one of the things that we did was we actually intentionally gender neutralized and generalized a lot of the references to people. So it's not gonna say a woman. It's gonna say, a person in most cases, because even if 1% of those scenarios, the person is non binary, or we're

miss classifying someone's gender or appearance in some way like, we wanna completely avoid that, even at the expense of being more generalized about the physical appearance or the gender identity of a person. Because, I don't you know, the software doesn't need to make that attempt? It's not that big of a deal from an alt text standpoint. I'd rather say a person and always be correct. Then run into that diversity issue. Right?

JAMES DOMINY:

Yeah, in the interest of time. Yeah, that that red team is one of the ways to address that. Yeah. Thank you. So back to Phil. It's already come up. Chat Gpt is, you know, the it's the generic term for AI at the moment.

You can't talk about AI without bringing up chat Gpt, so just this morning I was actually doing some research for this and Chat Gpt was down, and it struck me that most of the AI tag plugins on wordpress.org integrate with chat Gpt. Most of them are content generation things, and as Chat Gpt goes down, all of those plugins effectively go down right? So do you think that there is enough competition to chat, gpt in the AI space. How do you think that affects wordpress plugins, generally?

PHIL CRUM:

It is really hard to train an AI model right? And the benefit that Gpt has is the massive investment that Microsoft and others have made in them. I have a hard time imagining, I don't wanna say anyone else catching up, because, as time goes on, there will probably become more intermediary services that help provide you with data sets to train your models. You can filter out the information that you're interested in, as with all things in computing. Stuff gives gets exponentially cheaper as it gets a little bit more aged and a little bit less of a new novel technology.

It depends a lot on the use case. Right? Gpt, I think, has a very real leg up, and what it will probably be years before it has a real competitor in that very large corpus of data set very open, ended, prompt kind of world. But there are specific tools, whether it be by big companies like Azure, which I mentioned earlier, aws system AI apis ibm Watson, that are very good for specific problems that have much more tailor made and specifically train models that can actually produce better results.

I think you're right to note the proclivity of Gbt. Powered plugins in the wordpress space is because content generation is kind of the low hanging fruit right? I don't wanna demean any of those plugins, and that I know some of them have some interesting thinking around them, but it can literally be as simple as take prompt. That author has entered in Wp Admin provide verbatim to Gpt. 4 Api, maybe with a little bit of context around it and get something spit out. It is not.

It is very technologically innovative in terms of what we could have done 3 or 4 years ago. But the Plugins are really just a wrapper on top of the Api. Those other services are a little bit less straightforward to implement. Ibm Watson, for instance, lets you train your own models lets you provide your own data sets. It is more work and a little bit more upfront investment to use to its full utility. But you can get much better outcomes.

I think I would leave this with 2 takeaways is a plugin author. Somebody interested in this ecosystem. Now, number one, look for problems to solve that are a little bit less trivial than just take data, submit verbatim to Api. Endpoint can't result back. We have more than enough of those already. We don't need another one and two think really hard about the problem that you are trying to solve. Right? A lot of these AI solutions are very open ended because these Apis are so powerful they don't really solve a specific problem as much as they provide a utility. And the real way that we both provide value to website owners, to content creators, the real way that we innovate. And the real way that we can start thinking about to Rob's explanation earlier, what are some of the issues of bias. What are some of the issues of the way that this technology will work versus the actual outcomes? It's we're trying to generate here.

We can then build whatever safety nets we need, whether it be training a custom model through Ibm Watson, whether it be filtering the results to come back like <u>everyalt</u> does. And really focus on both, solving a real and valuable problem, differentiating ourselves against a huge suite of competitors that are really just Gpt Api wrappers and be in a much better position to think hard about what it means to innovate, what it means to solve some of these challenges and how we can build a solution that both does the best to can in this world now and be in a position to recognize when technology iterates and evolves, and be able to take advantage of the new generation of tools that I'm sure a year from now, if we have this conversation, we'll be talking about a wildly different set of problems, a wildly different set of applications and tools. And if you know what you're trying to solve and who you're trying to do it, for you can take advantage of that in a lot more meaningful way, I think.

JAMES DOMINY:

I think just briefly summarizing that. If there's one thing AI isn't taking away, it's good design, or isn't replacing, it's putting thought into design.

I want to move on a bit sort of a segue, I suppose. Nyasha, you recently had a blog post up about WordCamp Asia where you covered Matt Mullenweg's AMA about layoffs in the wordpress community. Lets get into the hard questions, I suppose?

The big question is obviously AI. Is it going to take my job? again. Do you think the wordpress community is particularly vulnerable? Given that, like most of the Plugins, do seem to be content generation and a lot of the jobs in the wordpress community are content generation jobs.

NYASHA GREEN:

Yes, I do. Sorry to say that. as someone who generates content. Yes, it is a very big competitor, knowing people in advertisement who've been laid off in their job. They, you know, they straight up told them, like you're using Chat GpT, or people who are in SEO, people are like, well, it's easier to use a AI plugin. Definitely, it's definitely going to enhance cost people some jobs.

That's why I'm trying to get to the space where it's like, okay, there's the moral, ethical, ethical implications. There's the risk of the taking my job. How do I get to a position by using it to make myself secure in my job future? And that's actually something I've been working on using it to actually learn. I know someone send the comments. We haven't really talked about how it's helping education

Chat gpt specifically and barred. I've used Bart, too. They are so helpful for teaching. I learned so many things in the last past like year. Well, almost year, just by saying, Hey, can you teach me this step by step, or can you teach me this like? I have to teach it to someone else, and it's been great. So yes, people have and will lose their jobs. But I think we should put a push on, educating ourselves to get ahead of that curve, and if we do, we can find something else.

JAMES DOMINY:

I think. One of Matt's. I totally agree, and I think that kind of drives with one of Matt's take away points at Wordcamp EU. 10 years ago, roughly, he was saying. Learn Javascript deeply, and this time it's learn AI deeply.

So another thing that I'd like to touch on and I'm gonna address this to Aaron. So large language models (LLMs) which are sort of the fundamental AI model behind things like Chat, Gp and Bard.

They are massively, computationally intensive. There's the obvious concerns about power consumption. But also given the computation of power requirements for me. At least it's hard to see LIms getting integrated into Wordpress Wordpress Plugins. And being able to be run on my local hosting company. The guy down the road, who has 10 servers in his garage, or even more to the point. My server under the stairs back home.

Do you think that there's a future for small AI plugins in the wordpress plugin in the wordpress plugin ecosystem? Or are we all going to have to sort of buy into the big 3?

Chat. Gpt, sorry. Go ahead.

AARON EDWARDS:

That's a very good point. Like, I mean, obviously hosting doesn't have fancy Gpus and the requirements that are needed to host, and these really large, powerful language models. So it's hard to see how we get to that point. I think, as AI becomes more ubiquitous. Maybe that becomes a a very important part of hosting providers that they need to provide GPS. You can run your own models, and we have seen very exciting developments in the last few months with more open source models, for example, Meta Facebook, releasing Llama 2 and Llama 2 Code Gen. Models which are very much comparable stats wise to chat. Gpt

The 3.5 version and that's something that you can train on top of fine tune and even use for commercial uses. So while it does require specialized hardware, and probably servers that that your plugins will talk to, it can be run on your own servers now, or at least servers that you have

more control over. So I do think we'll see some progress, and there's even been progress in very tiny language, models that are fine tuned to a very specific task, like classifying content, or or even things like what <u>everyalt</u> is doing. And those can run on just your normal computer hardware. Very, very small graphics, chips. So I do think that we will move towards that. It'll be a while, though.

ROB HOWARD:

One thing that they're working on right now is literally a Lm that can run on your iphone independently of the Internet, right? So it's much smaller, as Aaron said but I think that's, you know, a real thing. And then, you know that I think the next level of that is that your iphone is more powerful than the first spaceship that landed on the moon in terms of computing power. So you know those things are 60 years apart. But, like, you know, the degree of potential advancing. you know, processing technology is sometimes hard to have Fab. So even if it's not 5 years like, you know, it could be 30 years from now. But you could have, you know, an Lm. In every device in your home, for example, and that wouldn't be crazy. It wouldn't be any crazier than the fact that I have the iphone in my pocket every day compared to what it was like in the sixties or seventies.

JAMES DOMINY:

One day we will get to the Star Trek computer. Yes.Rob, what was your unmuted.

I suppose, one of the last things that I'll ask want to ask is, we've discussed a lot of the odd, obvious stuff. what? What are the non obvious things where you think AI would would be a real sort of step to the next level? And also, I suppose, part of the same question. What are the things that we've just completely missed out on the easy, low, hanging fruit that we just no one's done.

No, I totally wont steal your idea and make a business.

ROB HOWARD:

Okay, so I'm gonna take the harder the non, the high hanging for first, because you know one of the things that I think will eventually get to, and it is kind of Star Trek, Esque, if you will, is the AI that can interpret the world around you.

So you know, the self-driving car is one of the examples of this that people have, you know, had this idea for many years. It's not quite fully baked yet. But when I think about <u>everyalt</u>, you know, one of the things that we want to do is make it easier to experience the Internet as a visually impaired person or somebody who has a disability. There's all sorts of other stuff that you can do now with the combination of image recognition, video recognition, language understanding, you know. Imagine a world where you can put on a visor, and you can see, or you can hear, audio description of the world around you like, those are computational challenges.

But it's not that much different than what we're doing with a wordpress Plugin. Today, I wanna take an image of something that the video camera can see. Or the you know, photo camera can

see and describe it right? So when you think about that, and you think about things like prosthetics, or you know, you know, ways to help people who have physical disabilities or cognitive impairments. These are things that you know, we are gonna start to see those. You know, it's gonna be very freaky right at first, because it's like you're mixing the medical and the and the technology. But there was something where, you know, machine learning helped create a essentially an implant in someone's spine that allowed them to move their legs again. Right? So it was basically replicating what your spine would do, taking that signal from the top of your neck to your hips skipping over the pet section of the spine that was damaged and couldn't communicate with the lower body. And now that person can walk around with a walker.

So just like crazy stuff like that like that is a level that is many steps beyond a wordpress Plugin. But it's essentially the same machine learning concepts that are being applied to these much more life changing. You know, experiences or potential changes.

JAMES DOMINY:

Great thanks. Considering. We don't have much time left, and I want to give the audience QA bit of space. So I'm going to hand it back to Lexi todeal with Q. And A.

LEXI MOSTEK:

Yes, hey, everyone. Lots of questions, and I honestly, I feel like we could all just like continue to talk on this and provide no concrete, actionable things. But circling this back to Plugins. I will just kind of ambiguously ask a couple of these. But related specifically to Wordpress, how do you feel AI is, or will help with accessibility. I know this is a topic of wordpress

AARON EDWARDS:

I'll give it interesting idea in my mind. I love this new concept of chat ui or chat ux to where you type in what you want, and then it creates it. For example, we're seeing that with some of the form building plugins like Ws forms, I think, and jetpack forms to where you type in what kind of fields you want that kind of thing, and it creates it for you, so you don't need to visually see it.

You don't need to know where all the buttons are. Those kind of things. I feel like those kind of interfaces open a kind of a new way of interacting with your apps or plugins.

LEXI MOSTEK:

Totally great. Answer. I'm just going to keep going. We've got a bunch of questions and sorry everyone. I don't think we will get through them all. But talking about front-end, back-end development specifically. Has anyone on the panel seen anything actually effective in the front end design world with AI Yet?

PHIL CRUM:

I've been interested in some of the experimentation Joe Hoyle at human made has been doing in terms of generating block editor, layout space dot prompts. I realize that isn't the strictest definition of front end engineering. But as we get into this full side editing world and have a lot more empowerment and the tools in Wordpress.

I think that tools like that that lean on AI to create more novel and interesting experiences, will go a long way, and helping folks like me, who are not designers, not particularly ecstatically capable to do more innovative and interesting things.

LEXI MOSTEK:

Totally. I think we are just opening the door. And we're about to start running through that door. Cool. I'm gonna take just one more question or a kind of general topic, and then we'll do some closing thoughts.

But does anyone have any thoughts on the impact that our AI Plugins or AI that we're running on our sites has on SEO purposes?

PHIL CRUM:

So Google says, as long as it's high quality content, it does not care how it's generated, it does not specifically try to detect or penalize or reward AI generated content.

I think the key there is recognizing that it is easy to create content that isn't high quality with AI. The longer term issue of what happens. The search engine results when they're chat oriented is an interesting and sticky one. For those of you who were at WordCamp USor watch the live stream. Matt talked a little bit about this, you know. being, I think, does a very good job of referencing source material for answers. Chat gpt, some Google tools have a longer way to go there.

I would like to think we'll end up in a world where attribution is still a very important part of the Al interaction process, and there will still be a place for providing the canonical source of truth for content, because you will still be available as a deeper tool for places to go to. But you're basically taking it on faith. At this point. I don't think there's much we can do outside of advocacy as a community at this point to that end

LEXI MOSTEK:

totally cool. That being said, top of the hour, any closing thoughts, Rob, that you want to add on here.

ROB HOWARD:

Sure you know. So one thing that I would encourage everybody to learn more about, and it kind of touches on what Phil just said is the various copyright and intellectual property. You know, questions and changes that are gonna come out of this. We didn't really have time to talk much about that, but it's gonna touch everyone and everything. And just, you know, generally. I encourage you as a software fan, a developer WP Engine user dive in like, get your feet wet with this new technology. You know, get over that hurdle of being kind of a little bit worried or scared about it and start using it. And be that person who becomes that expert and brings a change in positive growth to this new area of computing down the road?

LEXI MOSTEK:

Absolutely. Knowing we are out of time. I just wanna give a huge thank you to all 4 panelists and to James here. Who hosted this discussion. It's not an easy thing to talk about, and everyone in this room was so confident about it. And I think we could do one of these every week for the rest of the year, and still not even bridge the surface. Nice to meet everyone virtually again. I did get to meet these people at wordcamp us. If you're registered we will send out the recording

Happy Tuesday, and we'll catch y'all at the next one.

JAMES DOMINY:

Thank you so much. It's been great fun. Everyone.