

Summary

This recording captures a presentation and subsequent Q&A session focused on integrating local Large Language Models (LLMs) into video game development using Unity. The speaker, a developer with an advertising background, advocates for using Google's Gemma models to power dynamic, procedural NPC dialogue and storytelling directly on-device, eliminating the latency and connectivity issues inherent in cloud-based AI solutions. Through demonstrations—including a mummy protagonist who converses with inanimate objects and a pirate skeleton survival game—the speaker illustrates how local LLMs can create "magic moments" of unpredictable interaction that transcend the limitations of traditional decision trees and scripted narratives. The discussion covers the technical architecture of local LLM integration, the trade-offs between local and cloud processing, significant challenges such as hallucinations and content moderation, and broader applications of AI in creative industries and advertising.

The Speaker's Project & Vision

The presentation centers on a narrative-driven game featuring a mummy character who rolls across Earth, interacting with inanimate objects that are given personalities based on people the developer knows.

- The core concept involves creating a "rite of outcome" where players negotiate with these personalized objects.
- The developer utilizes **Gemma**, Google's open-weight model, which allows downloading and installing local models directly into Unity projects.
- The talk positions this technology as "the next level of video game evolution," enabling true open-world possibilities where dialogue isn't finite or predetermined.
- The speaker emphasizes that this approach isn't about replacing narrative designers but enhancing their capabilities and moving toward procedural storytelling.

Key Quote:

"I thought it'd been really cool if I gave you to those inanimate objects, the person I know and I'm proud of. and you'd be able to check to try and give an outcome."

"It's not that we're trying to. get rid of that skill and we're trying to enhance and move. into this next level of evolution."

Evolution of AI in Gaming

The speaker contextualizes modern generative AI within the history of artificial intelligence in video games.

- **Traditional Systems:** Current games rely on "illusion of intelligence" using decision trees, finite state machines (FSMs), and A* pathfinding—technologies that have remained largely unchanged for decades.
- **Pac-Man Example:** The ghosts in Pac-Man operate on simple state machines (chase, scatter, frightened) based on screen logic, not true intelligence.
- **Scripting Limitations:** Traditional "choose your own adventure" style scripting means players see only a fraction of the written content (e.g., "eight pages" of an 800-page script), and open-world dialogue trees become exponentially complex and "overwhelming" to produce.
- **The Magic Problem:** Modern games feel predictable; the goal is to recapture the "magic moments" felt when playing classics like Mario Brothers through genuine unpredictability.

Key Quote:

"This is sort of like an illusion of intelligence, whereas I think we're at this day where we can actually level up that on intended level up the amount of AI and intelligence involved in the game."

"When we were, when our music hit our remember like playing video games. and Mario Brothers or whatever, it all felt so magical. And now, when I play a video again, I kind of get a little bit bored because it's a little bit boring. predictable and I think that this will sort of bring back the magic of it."

Local vs. Cloud AI Solutions

A central theme is the technical and experiential comparison between running LLMs locally versus through cloud APIs.

- **Cloud Demonstration ("Pon to the Highest"):** The speaker demonstrates a survival game featuring stranded skeleton pirates where AI responses are cloud-generated. This reveals significant latency issues—users wait seconds for text generation, breaking immersion.
- **Local Advantages:**
 - **Zero Latency:** Near-instantaneous response times relying only on local processing power (CPU/GPU/NPU).
 - **Offline Capability:** 100% functional without internet connectivity.
 - **Privacy:** No data transmission to external servers, crucial for user-generated

content or sensitive interactions.

- **Cost:** No ongoing API costs per inference; cost is front-loaded into hardware requirements.
- **Cloud Limitations:** Requires internet, incurs ongoing API costs, and suffers from perceptible delays that "lose the illusion" of real conversation.

Key Quote:

"So when you're using cloud, you're not actually learning anything, you're just a play pool. waiting for the standard reply, where it's sort of delay or it's just But... brings close to real time and cloud."

"You have zero latency, we're only relying on the processing power so if you run a PC or it's not. You're an expert in your AI ship or your CPU. under their record. So 0, nearly a second response time, 0 % to 100%. offline, ready."

Technical Implementation (Gemma in Unity)

The speaker details the practical implementation using Google's tools for Unity developers.

- **Gemma Unity Plugin:** A library that integrates Gemma's capabilities into Unity, accessible through Unity Scripting and ScriptableObjects.
- **Setup Complexity:** Currently limited to PC platforms (not macOS), requiring specific Unity versions and dependencies that can be "tricky" to install.
- **Model Sizes:** Developers can choose model sizes (demonstrated with 4 billion parameters) affecting game file size (e.g., 300MB becoming 2.2GB), performance, and response accuracy.
- **Architecture:**
 - Input text/voice → NPC Script → Manager → Local Model → Response → Dialogue output.
 - Uses **ScriptableObjects** to define character personalities, backstories, and behavioral rules that influence the LLM's context window.
 - Supports multi-turn logic (ongoing conversations) and streaming responses.
- **System Resources:** GPU load spikes during inference but remains manageable (demonstrated at ~50% on an 80-series card).

Key Quote:

"So this is how set up in Unity, you have your scenes there, you have this This is the core front which is what defines all of the sides. the clues and it actually goes up and says come up with a secret. secret word and a brittle solve that secret word so every

time it's something different."

"It's just streaming the response, which I know some of the cloud solutions do, but there's a process of sending off the prompts and their waiting for the reply. In this case, you don't have to worry about that."

Challenges and Considerations

The presentation honestly addresses significant hurdles facing local LLM integration in games.

- **Hallucinations:** Models may diverge from intended storylines or behave inconsistently (e.g., a chess-playing character refusing to play chess).
- **Content Moderation:** Local models lack built-in safety filters present in cloud APIs. The speaker recounts anecdotes of AI generating "controversial Chinese messages" or inappropriate content, requiring manual moderation systems or "two versions" of input acceptance.
- **Hardware Barriers:** End users require powerful GPUs/AI chips (NPUs), potentially limiting distribution on platforms like Steam where hardware varies widely. Solutions may involve catering to specific hardware for installations or pop-up experiences.
- **File Size:** Local models dramatically increase game size (demonstrated jump from 300MB to 2.2GB), problematic for "8-bit" or lightweight games.
- **Prompt Engineering:** Success requires sophisticated prompt design to maintain character consistency and guide the narrative within "rails."

Key Quote:

"There's a little bit of a problem. the other standard sort of challenges we've got, hallucinations to deal with. You know, it might divert the... intended storyline."

"It's definitely, and actually in I still get to someone that I've touched design event recently and they were talking about content, input, and moderation. system that we had two versions, one that we just accept. important and I ended up getting like controversial. Chinese messages that they couldn't want to write, but they were westerners."

Q&A and Extended Discussion

The session concluded with audience questions exploring broader applications and technical specifics.

- **Industry Adoption:** While major studios are experimenting with this technology, concrete examples remain scarce; the space is currently dominated by startups and experimental projects.

- **Creative Industry Applications:** The speaker, drawing from 20 years in advertising, distinguishes between using AI for "fire-fighting" (execution) versus groundbreaking creative work. Successful AI integration in advertising focuses on creating "magic moments" and shareable experiences (e.g., the "91" project with treadmills and WeChat integration achieving 45% conversion rates versus typical 5-10%).
- **Client Education:** Many clients view AI as a "magic spell" that solves problems without effort, requiring education that AI "actually creates more" complexity and requires significant setup.
- **Hardware Optimization:** Discussion of whether models can run on NPUs (Neural Processing Units) or be distributed across different processing units; Unity currently keeps this at a high level but lower-level parameter tuning may be possible.

Key Quote:

"I think it's more about trying to get into the heads of the consumer and trying to get into figure out what's going to stick... The most successful project that I worked on was 91 where that was the brief that they said made something viral."

"We get a lot of clients or, you know, would that a couple of clients come up to us and say, 'Oh, I buy a code at this and you just publish it now.' We have to sort of educate them, it doesn't work like that. And I think a lot of people see AI as like you know this magic. spell it, it's just going to solve all their problems, but it actually creates more."

Clean Transcript

[0:03] **Speaker 1:** So... Actually, I'll just after this I'm just going to show you the demo. So I started diving into video getting NPCs. I'll be talking about a video game that I'm creating, which is about a mummy's gaito that sort of rolls around the Earth by himself and talks to inanimate objects. I thought it'd been really cool if I gave you to those inanimate objects, the person I know and I'm proud of, and you'd be able to check to try and give an outcome.

And my business thought and Patrick shared me Gemma which is they have immunity for you which allow to download and install different local models as part of the project. So, of your game so you can basically run the LLM through your game or for you again, and anything builds in unity. So you could use it by everything. So this is going to be a talk about how to do that and why you want to do that and how I believe it's the next level of... video game evolution and we have a look at comparison between doing that in unity and doing through a cloud-high solution instead of what their advantages are and you know, praise and praise of them.

And yeah, and like... I think there's a lot that's already sort of happened in It turns out AI and evolution in games already. We know the history of Pac-Man and it might sort of seem like

there's some sort of intelligence there, but they're pretty dumb systems. They're just using basically on TSM decision trees and they have state machines that they just switch to between based on what's happening on the screen. For instance, in Pac-Man, there's the three different modes, you're in the ghost room and chasing you all this data or their return to base and then as a leader between that based on the logic of the game.

And yeah, so This is sort of like an illusion of intelligence, whereas I think we're at this day where we can actually level up that on intended level up the amount of AI and intelligence involved in the game. And the main reason is that scripting dialogue is time to go consuming is kind of limited and it can kind of it becomes overwhelming. So, and there's often it becomes a little bit predictable and there's a few things I'm trying to get in loops where the same thing happens over and over.

And yeah, so I've sort of covered some of these. So, things, when you're using a decision tree, I don't know if you remember choose your own adventure books when you're growing up. They're like this big and then you're read one adventure and you only read like eight pages. So that's a good sort of illustration of what is actually behind the way the mechanics or the scripting and narrative for the video game. There's like this much script and then one player might only see like eight pages of that script. But obviously they can go back again and choose a different heart. But each sort of like is finite and predetermined.

And if you wanted to do like an open world style game and we dial in the interaction, then you run into a lot of sort of limitations and it becomes a bit of a nightmare. You can just imagine a scenario. Imagine you're going into an open world like a tablet or something. You speak to the bartender there and he's got a script to reply and the answer is three different ways. Like us in a battle, what are you doing in the town? Do you know what's your quest? so if you know so many different ways you can answer that. So it's kind of limited and then imagine you had, you know, one of those characters imagining you have hundreds of those characters and then you have ten times—

[4:53] Speaker 2: each of

[4:54] Speaker 1: those characters in terms of how deep their narrative was. the designers of the story and then Ariety spent a lot of time on this. And yeah, it's not, I was talking to someone before about this. It's not that we're trying to get rid of that skill and we're trying to enhance and move into this next level of evolution and that.

Yeah, so some of the other students with AI or intelligence or smogness of the game games are already using hard finding and Again, sort of a finite algorithm that is being used to say So efficiently determine the destination from the consultation and it applies to the state machine and then switch around the heavy trees we sort of mentioned. Outlook utilities for such things as stores and rankings and then go on your own action planning as well.

So the main sort of thing is that this has been used quite a long time and The non-player

characters have a lot of end-to-end and like history behind them that I think that they're already to sort of evolve into the piece that I want.

So then what is that next level? I believe it's Gen AI where it challenges the model. So being able to use generated dialogue in a real time scenario where you're able to create different. So I guess interesting and unpredictable moments. So maybe sort of character reacting to different players in different times being like having a You need conversations each time so you're not going through the same chain of events having like procedural storytelling and Yeah, just trying to create those magic moments in the game that When we were, when our music hit our remember like playing video games and Mario Brothers or whatever, it all felt so magical. And now, when I play a video again, I kind of get a little bit bored because it's a little bit boring predictable and I think that this will sort of bring back the magic of it.

And yeah, I can do that through all of these things that we've just done sort of. There is a tool out there that Google has created for game developers and it's basically a library. Unfortunately, it unwaxed on PC at the moment to TLL. So you load in their library that bucket into... the PC version of Unity and then you get a local You can download a model from Google repository and you choose the size of the model which obviously influences the size of the game that you're creating. And then, and also performance and reaction response time and everything like that how accurate it is.

Obviously we know that sort of stuff that impacts the size of the model impacts the performance that you will get over three-boss over the next size of the game. So if you pass into the game and then you can basically a local language model to drive the the interactions for the dialogue and for the non-legal.

So... Just going to I'm just

[9:18] Speaker 2: gonna jump

[9:19] Speaker 1: over here. So the alternatives to that is... So what we're talking about here is on the voice. Why? You have zero latency, we're only relying on the processing power so if you run a PC or it's not. You're an expert in your AI ship or your CPU under their record. So 0, nearly a second response time, 0 % to 100% offline, ready.

So I don't believe in the first one, this is probably something I should but this is part of the process with Gama but basically they're saying that you don't have to wait for the network you're only waiting for the C for you. And also the other thing to-- think about its privacy. And if you are concerned about that then there's nothing going on to the cloud. All the time that you have to that is cloud AI where we are we stop using services like Google options that are available.

So this is the end of the video. It might be better to show this live, but... So I'll show you the

unit anyone in a second but I thought it would be interesting to show you the sort of delay that the cloud option has. So I buy I've uploaded a video game that's based on survival. It's called "Pon to the Highest." Island where there's a bunch of stranded and dead and they come around and attack you either as friendly or hostile. And you have to convince them that they're a nice person or a nice skeleton. And if you convince them and they turn friendly and objective is to either kill or who wants to do it one at a time, friendly or all come down.

So, look. And then, you can just keep it in the

[12:02] Speaker 2: middle.

[12:05] Speaker 1: Just thinking down there, this is the tile sculler. So all I had was a simple prompt that said you are a dead pirate on a stranded island and to be the hostile or friendly and to attack people and you know some of these weight misses and it's other things like that, but basically the rest of the story is generated based on in the fact that they're stuck on an island and then into trains to buy.

So, your poses, your discolors in the perfect way the next silence of my studies, to part now or I shall So, transcribe your end upon the ferry. So I've got my ring reading glasses once, everything's a bit blurry over there. So I'm going to try and convince you this guy that he's nice. I just hope that you enjoyed this video that I love them and it says the ink of your heart is wasted on this uninvested of that hold only ancient dust. I have no pulse to quicken for such trivial mortality.

So this guy is tough to convert. So either I try to... and try and chat again, but I could tell from where he played if he were. He probably wasn't good. So I'm gonna try again. The other option here to grab some of the weapons and just kill him.

You pose this frantic shadow across the page remain blank. Prepare to be the ink of the finishes that long, this long bitter lesson. I just did it on my head. You can see here it's thinking so this if you're running a local a little of you would have run into this. You may stay the drinking cup webs of the boy for the vanity of the living. Such ignorance is a death that. You only, that only your silence can repay, yeah, this day.

He's not going to change, so he's just going to kill me. Anyway, so some of them do change and the This is quickly to show you one that does change. Do that. And it's the same guy that Daniel's got up. Living on written pages waiting for the end to decay to claim them. Does your narrow, your narrow, egg width? and the knowledge that you are already a footnote in the island's tragedy.

I love you. It's a high, high one, this one. Such, uh, fleeting passions, uh, but just yeah. Simla, your tongue waging will not spare you from the heat on these islands this fair. Well, there's a bit of repetition there. Anyway, I can show you later this video than working.

So yeah you can only see how rich those die that interaction is and how just tweaking some

of the problems and potentially having some right now and it can put into some of the prongs that can influence it. You'll also notice the delay. So I'm going to show you now. Yeah, so we have like a five response. So, win.

So when you're using cloud, you're not actually learning anything, you're just a play pool waiting for the standard reply, where it's sort of delay or it's just But... brings close to real time and cloud. You have the ability to scale a little up easier and it requires Internet and NKL which adds additional cost whereas if you're local the initial learning is a issue but once it's there it runs fully on the virus but there's no ranking I can't cause it so So yeah, it's just sort of toss up with what you're doing you're trying to do, but I believe that when you're interacting if you're waiting for that text to generate it kind of loses the illusion and a little bit.

And so this is the-- It's called, sorry, "chemma". So there's a Gemma Unity plugin that brings all of the capabilities of the LLM into the app and you can access it through Unity Scripting and Script tool options which you're showing in a minute. And it's sort of streamlines about that vibe things that makes it quite easy to work with and so like this.

So this is part of a recording that I did this up. I'm Manista Lodin, the plug-in, and you can see here. Maybe not over the back, but if you look down, you can see I asked a question. So basically the idea is that you go into this game and you... approach or you approach a few different characters and you have, if you're a reedle and you basically have to solve the reedle and This is Google created.

This is a demo to show the plugin literally like get it running which is a little bit tricky like you have the limitation of running it on a PC but also installing Some of the plugins in Japan, since it was quite tricky as well, it makes it really had a special... addition of unity and a few other things but once you set up it's great and you can start to sort of test and play with it. And you can see here, it's-- It's just streaming the response, which I know some of the cloud solutions do, but there's a process of sending off the prompts and their waiting for the reply. In this case, you don't have to worry about that.

Yeah, and it's a, in this case it's a multi-turn logic where you chat to the player and the non-play character in it requires each time and you have to solve the riddle to get through to the next level so it's kind of like an escape room.

So this is how set up in Unity, you have your scenes there, you have this This is the core front which is what defines all of the sides the clues and it actually goes up and says come up with a secret secret word and a brittle solve that secret word so every time it's something different and sometimes it's kind of easy and sometimes it's a little bit hard, but there's a one shoot details in that prompt which comes down to the prompt engineering and I think

[20:06] Speaker 2: it

[20:06] Speaker 1: really sort of gives the designers a whole new world, a whole new way to

think about designing these experiences and what this is is the different from space to the characters so you can see that There's one there called the gas and he's the chef. There's door what who is, I don't know what that character is personality and estate, resident, software, and And then Flek is a another part of the entertainment unit. I didn't get up to the camera, but yeah, so these got all the All these guys use the clue bot which is tying them all together and using the same scriptable object.

So you can see that's me talking to the chef and then And so this is it running so there's like, I asked the question and then an answer answer another question and answer and you can see in the CPU load sorry a GPU load that it kind of spiced there. This is it loading, it's doing nothing and it spikes a couple of times while it's riding. But it's still only a few minutes.

[21:30] Speaker 3: 50%

[21:30] Speaker 1: which I think I've got like an 80 % card in that and then I used a four billion Um And it's really interesting stuff really fun kind of space to watch. I think that This is just an example of using it with text. You can also use it for gameplay for navigation. You can use it for anything that has need something to be defined.

There's a little bit about the

[22:16] Speaker 2: architecture,

[22:17] Speaker 1: which is different obviously if you're running in locally or on the cloud, when you're running in locally, you except the input text or a pretty little voice like comes through it guys to the NBC script which we just saw. Then there's a manager that so channels it to the model then you get the recipe and then the dialogue.

Yeah, so some of the things that it could help me with this different personality working with back stories and some of the lore or you know, backstory sort of like the creative core of what the goal is I'm going to do. And then, yeah, some of the behavioral rules and how the different characters interact. And yeah, absolutely. I think some of the stuff that's interesting would be the coming up with procedural quests. So you could really do like open world possibilities possibilities and yeah stories specific to you so you could go create your profile and then up to you profile we get injected into the prompt.

But yeah, there's a little bit of a problem the other standard sort of challenges we've got, hallucinations to deal with. You know, it might divert the... intended storyline. I think it would be some performance issues if the people don't have the powerful enough hardware and yeah some consistencies like causing you know if you were creating it game about someone playing a game of chess but then they show up and they're playing chess is that we're not really work well.

So I think all of these are things can kind of be handled But yeah, just being at once is a so that it controls some of that to solve some of those challenges. But that's pretty much it. I just

wanted to share some of those learnings that I have. And his I'm going to read some of my contact information of God, each I pay, has nothing on that at the moment so just guarantee that don't be surprised if it's playing for the moment. I'll be putting the game up there soon. And then this is my contact card for Toronto, which is the company that by Ron Lee Patrick to the moment.

So yeah, I wanted to thank you. And if there's any questions, you can just shout out.
[Applause] [Applause]

And question. Yeah.

[25:18] Speaker 4: Oh, are there any major games studios.

[25:26] Speaker 1: I know that wouldn't be a problem be making that if they weren't. So I know there are. But I do. I don't know what the examples are. I wasn't able to find any. I'm not a talk, but... Sean, might know something.

[25:45] Speaker 4: I've had a couple of fun. It's one of these spaces where it's like a creative... I'm just trying to look at it a little bit, but they're also quite a lot of startups saying that they're doing this but there's a lot of AI and there's a lot of PSA.

[25:58] Speaker 2: I

[25:58] Speaker 4: think they're doing that. But I'm kind

[26:01] Speaker 2: of

[26:01] Speaker 4: curious considering you put this together and something that I'd be doing with a lot of it. [Inaudible] What's made there?

[26:13] Speaker 1: No, I guess that's one of the Godrads you have to figure out. But if you did that it would be probably slow down to the interaction a bit. before about some of the first boys like the kids to do getting AI embedded in them. How they going in their throat and like telling them them to kill their parents.

[26:40] Speaker 4: made a tool just for the fun to get the star up to be back on their pitch decks my startup and depending on the rose level it sometimes says Some really nasty things like you know your star is stupid and you're an idiot and it's like wow that's kind of like one of the things that you really need to spend as a couple of years.

[27:04] Speaker 1: [Inaudible] It's definitely, and actually in I still get to someone that I've touched design event recently and they were talking about content, input, and moderation system that we had two versions, one that we just accept important and I ended up getting like controversial Chinese messages that they couldn't want to write, but they were westerners and they just let

[27:35] Speaker 4: it

[27:35] Speaker 1: go. And I were manually meant editing it. And then, so there's already that, and my challenges do with that, but maybe... This is somewhere that I could actually like shine and help out with but There's so many still hallucinations and not having the right to go right down rails and set up 10 core to big trouble.

So this is And then the other thing that I was worried about was my little video game is like an 8 bit game and as soon as I put it in the LLM it's meant to be like a 300 megabyte case and then I add like two keys like LLM so it's 2 .2 E And yeah, so it ends up being like not a great idea if you're going to

[28:27] Speaker 2: be able

[28:27] Speaker 1: to do it trying to do something lightweight, but so change a bit and a bit doing some graphics. Yeah, but yet question? I put you on the

[28:35] Speaker 4: question. The same, just

[28:38] Speaker 2: showed you the boy from him.

[28:47] Speaker 1: I didn't get to that level of just how you're about to do that. Yeah. So with the running and the brows on, frankly can address them in the total next. But yeah, I'm pretty sure you can, but be clear unity kind of want to keep at high level they just let it be good out there. I'm pretty sure you can go in there because it's just the TLL, you can be able to override some of the parameters until it's uploaded to different processes.

And I don't know how we address, like, you know, backs with the and then you're in five and like all that I had. Yeah, yeah, like because that's not considered a CPU or GPU, is it? I don't know how we do that. But yeah, I'm sure you'd be able to.

[29:52] Speaker 2: [Inaudible]

[29:54] Speaker 1: Yeah. Yeah, I don't know if I got the image here. But you know when you stretch your front, actually. It's really good at this. It feels like giving an example of J and how he wants it to work and it'll be like, this is like your designer and blah blah blah and then use pointy brackets or something. Save fill this in with whatever you like and give some examples so you can do that. It's just like any other system from any other life, from the engineering or system.

So yeah, you can do that. So then I'm basically that clue what is, yeah that one there is doing that the call is to generate different concerns based on the template that the clue board has. So yeah. Sounds right? I thought it was awesome. Yeah, we should try it out. I'll start talking later in the next video. I think the other example. I did it very well, that would be fun. I wonder if it might be difficult different because they know that they're talking to them students and not

talk into my own. Yeah, take it over the world.

[31:35] Speaker 3: Usually all they're looking for is you know you run like Mike. [Inaudible]
[Inaudible] [Inaudible]

[32:12] Speaker 1: Yeah, I think. There's two ends and two ends is do you want to do what everyone else is doing? And then if so, just use a kale. I'm a little bit more like a child and connect network or if you want to be like You want to do groundbreaking work that people have never done before.

I worked in advertising for like 20 years and We have created come up to us and say we need something to fire all and then I'm sure that she just breathes a little bit back. So that is, like, need me more information. But I-- think it's more about trying to get into the heads of the consumer and trying to get into figure out what's going to stick and there's a lot of different way to doing that and I'm actually Patrick and I am allowing work on a program for an agency that the main goal was to So, to streamline some of those processes and kind of give the creative tools to say them from doing on the group and this is happening in every industry not just advertising but I've been like, you know, using AI as a sounding board and bouncing ideas offered and using it to boost your ideation and workshops and just to try and treat it different ideas is a really good way of doing that.

But the The most successful project that I worked on was 91 where that was the brief that they said made something viral. And it was a unity project and you got turned into a character and an individual you ran on a treadmill and you could share that on WeChat. And I think, um, the mates in the takeaways that they get something out of it. Like, it's just a the 15 second gift, but they've got something that they take away, they feel like that they have a member of BILIOT, some sort of member of BILIOT and actually experience that you're part of and I think a lot of those. It's hard to convince the client of those experiences, but if you can then they seem to have the best result. That was good night and they had a 45 % conversion rate then you should that those selling compare to normally it's like 5 or 10 per second

[35:00] Speaker 3: [Inaudible] [Inaudible] [Inaudible]

[35:40] Speaker 1: We get a lot of clients or, you know, would that a couple of clients come up to us and say, "Oh, I buy a code at this and you just publish it now. We have to sort of educate them, it doesn't work like that. And I think a lot of people see AI as like you know this magic spell it, it's just going to solve all their problems, but it actually creates more just why we're here. And then we'll just take one more question.

[36:10] Speaker 2: My question is, say one of the heads that I was wondering, can you try?

[36:27] Speaker 1: Yeah. The problem there is that if you cater to one piece of hardware, then you're distributing something like one steam or it's it's your whatever, then it ends up

becoming a like it may not run well in all the other devices, but if it's for us situation like a campaign or like a pop-up and you could. I think a piece of technology that you can just stick to, that sounds like it would be Yeah, they're the little IoT devices with I'll see you

[37:06] Speaker 2: next time. [Inaudible] Yeah,

[37:31] Speaker 1: it makes sense and when someone told me they were using it to seeing like, interviews to solve mass problems 10 years ago. I thought that was really cool. but yeah it makes sense. Yeah cool alright. We're going to jump over to the next tour. We might just have a look quick break and then freshen up while I get the decorating from Frank and then we'll continue on. So grab a string for the toilet and come back in.