

DGCPodcast 5 tekstivastine: Game development beyond the obvious tech choices

Wanda

Welcome to the DGC podcast, brought to you by Expa Game Business Cooperative and Jamk University of Applied Sciences. I'm your host Wanda O'Rly and here we discuss game industry, games, education, the bridge between them and any related topics and projects. Today in the studio with me is the partner Experience Manager of the Finnish Game studio Quicksave Ren, Welcome.

Ren

Thank you for having me.

Wanda

And from Jamk University of Applied Sciences, joining us is Jani Seppälä, a specialist in game technologies. Welcome.

Jani

Yeah. Thanks.

Wanda

So Quicksave is a studio that makes games for web applications such as Facebook, zoom, Viber, etc.. And what's really characteristic to these games is like instant play ability, so you don't have to install anything before or on top of the web app that you're already using. And in addition to that, there's the social orientation. So a lot of these games have online multiplayer in them and they make use of the social network of the mother app. So to say so. And in addition to that, Quicksave has recently released their developer toolkit, allowing others to start making their own HTML5 and WebGL games. So today we will explore game development beyond the obvious tech choices and dive into the tool developers mindset. So question for you Ren your current role is in marketing and communications. But you have a background in programming and your customers are mostly engineers, so I'm really intrigued to ask that. What are some of the benefits and lessons learned when a developer first started to think about game development with HTML5 and WebGL?

Ren

Well, there's a few considerations to make. And, a lot of that deals with the platform itself, like the web platform is a very, particular platform. You have to be optimized to be fast. You have to cater towards the, cater towards the browser and the browser technologies themselves, which is where the Quicksave toolkit comes in. And there's a specific toolkits made for creating web games. We've been doing it for several years now. It's a robust, toolkit of editors and also, build technologies and, yeah, take into consideration all the optimizations necessary to build web games is one of the major factors of why we have the toolkit in the first place, because there aren't too many other tools out there specifically made for creating web games. Another factor, especially considering when it comes to making web games and why the tool kit shines, is the pipeline that you'll be working with. When you're

working with the team, for example, of team of artists and coders, there can be a lot of back and forth when creating web games. Yes, an artist might have to tell a coder to move this two pixels to the left, or that two pixels sort of right. And this can really slow down the production pipeline. So what our tool kit does is that it gives Artists Agency to create the look and feel of the game itself. And, designers as well can use the tool kit to create the flow of the game without having to go back and forth with the coders slowing down the pipeline.

Wanda

That's really fascinating. So. So am I getting it right? That's, basically at Quicksave, like all the games that you have made yourself have been made using these tools from the get go.

Ren

Absolutely.

Wanda

So, can you elaborate on that? How how basically, if a studio sets up to make, they're like HTML5 games, did you first start to think about the tool or the games that you want to make? Or what was the thinking process behind that?

Ren

Well, our, our founders are industry veterans. They they, sold off their first company and all that. And, you know, they went on to work on and build Quicksave Interactive for, you know, making these web games, of course. I would say that's typically our flow is that, yes, we and we think about the game, we think about the game design and all the mechanics and features we need. Of course, you know web technologies, this is emergent game technologies. So typically when we're developing a game we also have to consider what sort of features we want. And when we're developing these features we add these features to the toolkit, the tool sets that we have so that we, you know, next time we're developing this game, or somebody else may be developing a similar feature, it's much easier for them. We take our own experiences and use that to build the tools themselves.

Wanda

What really fascinates me is the kind of how the tool itself is kind of built on the meta knowledge of the process of making the game already to serve that process, and that's why it's so, so fascinating. Obviously, building such a tool already requires you to have insight about making many games and, and, like the thought process behind them and the workflows behind them. And that's why, like, I feel like there's so much knowledge embedded into the tool itself.

Ren

That's why that's where I have to definitely commend, my team over at Quicksave Interactive. Again, the, the very experienced industry veterans and members of the team, there's a lot of foresight that goes into the game development process of Quicksave. And, you can definitely tell that it shines, with

everybody there

Wanda

This is really cool. And, if I then bounce this, discussion to you Jani, from, from like, Jamk's perspective.

Jani

Yeah.

Wanda

Basically, as a as a game technology specialist, what would you say about, like, how does, how do different tools, like, guide your thinking in developing a game of, for example, can you, can you elaborate on your opinion on this?

Jani

Yeah. Well, especially from that like WebGL and HTML5 perspective, since that seems to be like the most think the like the thing that you're focused in. I think like I would probably look into your toolkit because because I've, I've tried like many, many I mean I've used unity and then some lower level like just building purely out of JavaScript, using three.js Library, library or something like that. But it's usually like doing even something basic is not really easy. And and especially if you come from like that standard background, like you make PC games with unity. Okay. But the WebGL world is much different. They have different devices and different screen sizes and everything. So I think having a like a good robust toolkit that you can use there, you don't have to worry about building the tools yourself will actually help quite a lot when you're building your applications, because you can then just focus on the application itself instead of just like building the tools first and then okay, now I can build the app.

Wanda

So do you have an experience of like making some of your own, tools to, to be able to work with HTML5 or?

Jani

Well, not directly like own tools, but like unity offers like a possibility to create JavaScript plugins, for example, for WebGL development. So I've built the plugin so that I can interact with the browser scripting in special cases where I've needed to have the web application talk with the website that it's embedded in. So that's kind of stuff I've built myself. And of course, in general I've had some experience with Unity Development, specifically building tools like for editor tools for the people to use. Well, mostly me and my team here at the Jamk, but in general, some experience.

Wanda

And can you elaborate on the examples of, basically, for what kind of projects have you used these?

Jani

Yeah. So for example, currently we have the Finnish Future Forum project, which is quite large. It's at least in Jamk's jamk's like perspective. It's I think it's around €3 million funding for the project. And we are building like a digital twin of a farm. So that's where the Finnish future farm comes from. That's just one part of the project, of course, but that's the part that I'm involved in. So in there we have we want to have like a to create the visualization for the digital twin based on actual real world data. So we take the real world data and we visualize it in unity. And the platform we've chosen is a website. So we need to use WebGL for like doing all the unity stuff. And also we need the we need to to communicate with the website itself because all the other features not it's not just a single unity application that runs everything. It's just you need the application. It's just the visual part of it. So it's been a lot of learning about WebGL, even though I do have a little bit of experience with java script and web technologies, but I've had to learn a lot.

Wanda

So listening to Jani's explanation of like, the aspects that he needs to cover in his work, does it already kind of start to tickle you that, how the toolkit could help in this case?

Ren

Absolutely. So, I guess me being me and I'm from the United States, I'm the competitive. So sometimes I see it like, yes, it's our toolkit versus unity, but it's not really the case. Our toolkit is called a toolkit because it's not an engine. We want it to be agnostic, that it can be used not only to create web games, but because the toolkit simply saves old data as Json data, it can easily, easily be ported to unity, to be used with Unity or Unreal, to be used with Unreal or Godot, even. And the whole idea is that, you know, it kind of bridges that gap of making it easy for people coming from a unity background to be able to use our tools and still be comfortable in their unity environments to create HTML5 and WebGL games. You know, of course, that being said, like we do have build to build a build system. We do have, ECS, we do have libraries. If you want to go in the pure JavaScript TypeScript environment and create games with our toolkit. Now, of course, you mentioned you have to learn JavaScript and all that. And, that can be tedious if you come from a unity C-sharp background, which is also where our tools shine because our editors, our UI editor and machine editor for finite state machines, there are no code tools. You do not need to know coding to use those tools. You can to extend them, sure, but completely unnecessary of the UI editor is great for artists and technical artists. The machine editor is great for designers to create the UX and the flow of your game. And yeah, all of that just makes it easy for people who come from a different paradigm or have no experience creating web games entirely. To be able to jump right in and create web games using our toolkit.

Wanda

So, perhaps if I tap onto that and bring it to you Jani and what about your team? Like, obviously you are very, technically oriented, but, what what other members are in your team and how do the workflows work there? How do you communicate over these? Interfaces or thresholds of different subject knowledge?

Jani

Yeah, that's of course, a challenge because, I mean, I'm very much in the project team. I'm the only one who knows about unity and, well, the other team members know about web technologies and databases and back end and front end and then then it's like, okay, I know how to build a nice unity application, but then I need to needed to, like, be embedded into a front end application that's made in Vue.js, for example. And then then I have to think about how, okay, how do how do we make them talk to each other? Because first there's a view application. It has its own repository and own like build stuff. And then we have the unity application. It has its own thing and it has to be built and somehow embedded into the front end website. So I don't know, you probably tackled similar stuff in Quicksave so.

Ren

Yes. But I actually can't talk about it because we're going to announce this new technology at slush. I've actually already demoed that. You've seen it as well at PGC.

Wanda

Yes, I did.

Ren

But now we're, gearing up for a bigger announcement at slush.

Wanda

And now we are just teasing the listeners here, but yeah. Oh, okay. Let's let's stay tuned for that. That big announcement. That's that's really cool. But yeah, if we, if we, focus on the workflows. So, in your team, Jani. Is it like, is there someone who is, like, calling the shots from above and basically making sure that everybody knows the outputs of the other and kind of work together? Or is it always like, just like specialist or specialist discussion?

Jani

Yeah, it's mostly of course we have to like the coordinator for the project or the work package that handles like top level stuff. But of course they are not the technical person. Then we have a team of technical people who are actually doing the development and we have like just normal, like scrum type meetings where we discuss and then if we have some issues, then we try to solve them and, and some there's been some, some new developments that we have to take into account or something. Then we'll try to like just within our specialist team, get it all sorted. Of course, when it comes to stuff like related to that project management stuff, then we don't have to fortunately handle that because we have the work package management person doing that stuff. But he leaves that like actual development to us.

Wanda

Yeah. So I'm like, well, functional and to some extent like intuitive. And brings me back to the toolkit. Basically what is the type of workflow in terms of like team dynamics that you have been thinking about when developing this tool does it support, like very small teams where you only have like a couple of specialists working together or, does it require for, for example, as a someone to call the shots from the producer role and then you have our specialist there working. So, have you embedded this into the product itself?

Ren

Well, I suppose the nice thing about the toolkit is that we've approached it from, you know, the teamwork aspect. I would say that when it comes to like conventional web games, either have very small teams or it might just be done with one person. At Quicksave we have multiple teams, we have an art team, we have a design team, we have a coding team, we have a tech team that works on the tools themselves. And we do have a producer, of course. But the producer's role is overarching, I would say that the toolkit definitely, helps out with separation of concerns. So all of the art, the look, the feel of the game is done by the art team and the design team. And because the toolkit has a, it takes a what you see is what you get approach. Whatever you create in the toolkit, it will be exactly how it looks in the game. So when a coder is on the implementation side, you know, adding functions or writing functionality, any additional scripts, then it needs to be written, they already know what to expect, how things should look, without having to do any guesswork of yes, this is what the artist intended. This is what the design was. It's it's all laid out in front of you when you're doing the implementation, which is what I did for, you know, quite a quite a while when I first joined Quicksave. And it was extremely easy to just have that responsibility, that guesswork removed from me, and then just have the artist say, this is what needs to be implemented. This is the layouts. This is the, a game flow and yeah, just go for it.

Wanda

It sounds really good. And, I want the challenge a little bit because like obviously you're talking from in the team. So also like you you'll have the toolkit and you know how to use it. And basically you're very familiar with the product, but it's freshly out there. So have you had any like feedback from client companies? Like, how have they experienced it? And and can you elaborate on that?

Ren

I can say a little of it. Yeah. So far we've gotten great feedback from artists and designers. All right. And of course, these are no code tools. So it really fits into their workflow, their paradigm. So it gives them, again, control over what they create. With the with the toolkit in the game itself. When it comes to when it comes to coders, especially web developers, there's a bit of friction. You know, the web development, communities, the web development scene is quite heavily guarded in terms of their frameworks. But, there's definitely a shift in paradigm right now for that to frameworks are becoming heavy and complicated. And of course, a Quicksave we, we're, we're rolling with the punches. You know, we we look at that, we see, okay, how can we actually make the toolkit better for web developers, for example, how can we make it easier for people to actually jump right in and use the toolkit? And, you know, that's where I come in as the partner experience manager. I, we have an entire tutorial series. We have we have API references for our technology, and we have all of that freely available on our website. And, yeah, it's so far that, you know, having that, those learning materials have definitely helped bridge that gap.

Wanda

Yeah, definitely. And, that that's usually the case with any, any like product, but which is similar to this. So, so you really, really need to have your kind of community built around it and people exchanging knowledge and, guiding you to the best materials and all of that, so.

Ren

Yeah, and so it was very pleasant when like, we're in a meeting with a partner and they say, yes, I've watched all of the videos, I'm like, thank you so much. You've seen so much of me already.

Wanda

Yeah. Yeah. So skipping a lot of questions there. But.

Ren

Oh yeah.

Wanda

I have to pass it back to you Jani. Have you seen any of the videos yourself?

Jani

From the Quicksave?

Wanda

Yeah.

Jani

No unfortunately not. I had done my research poorly, but that's I mean, I've been listening to you and I think if that toolkit is freely available, then I would probably have to take a look because it does sound enticing for our use case as well.

Ren

Yeah, we're open to partnerships with, university institutions. Of course, aside from Jamk, there's there have been a couple of other amk's who have been interested.

Jani

Okay.

Wanda

Yeah. That that's that's a great opportunity. And I believe like, from my, my perspective, basically collaborating and working with the students here at the DGC, seeing what they do, giving feedback for their work, and kind of guiding them to explore different career paths and opportunities in the game industry. Having this, these type of opportunities also to explore, like, of course, their education program is already like very fully packed. But, just to kind of perhaps explore a little bit outside the technology choices that kind of lock you into thinking about also the workflow and the team dynamics in a certain way, just like we talked about here. So I believe that, for example, getting yourself familiar with this type of tech in, say, a game jam, would be a great opportunity to kind of expand your mind about the opportunities, what what type of things you could be working on in the future.

Ren

Oh, yeah. We've actually had one of our partners do a game jam with our toolkit, which was surprising. Was not expecting that. But it was nice to see, one of our partners is actually based right here, in Jyväskylä as well it's a Zaibatsu.

Jani

Oh, yes.

Wanda

Yes, yes, I believe that, the famous Rambo last click is a fruit of that collaboration.

Ren

Yeah. They when I first started working there, they had a meeting and they presented Quicksave with a Rambo knife. So I'm quite certain that means we're married now or something. I, I'm not entirely sure what the cultural nuances of that are, but must be that

Wanda

I'm sure it's positive and engaging and long lasting. Okay. So, Yeah, if if we like. Okay. Now we've been talking about the tool itself, but if we talk about a little bit about the tool development. So, it's often said that jazz is music for the musicians. And using this analogy could be like. Or we could argue that tool developers are the jazz musicians of the game industry, you know, developing for the devs. So, how does an individual or a company end up developing their own tools for others? And what kind of professional growth is related to this process? Now, you already mentioned like that your founders are industry veterans and so on. But, can you elaborate on their behalf like, what led led to this? Like, what kind of insights?

Ren

I would say that, you know, original like the original, the original thought was that, you know, we use this tool, we use these tools in-house, and we use them with our partners and understanding that there is a need for this sort of toolkits, out there for creating HTML5 and WebGL games, that this is a gap in the market, that this does not exist. And wanting to fill that gap, wanting to, you know, allow,

enable people to create HTML5 and WebGL games. Our whole message is to empower, empower artists and designers to, you know, create interactive, high fidelity, uses games, what have you. And, And, yeah, it's been it's been one of those things, like, I like to think of it as a, situation of, yes, we've made this. It's been very useful for us. It may be useful for other people as well. And so far that has been the case. Many of our partners, they have tried making web games using just just JavaScript, just, phaser or some other technology that's out there. But realizing that it's extremely difficult without any engineers, without any tooling. And what we bring to the table is that tooling, we fill that gap, we make it easier for them to quickly go from concept to production using the toolkits.

Wanda

Yeah. It sounds sounds like a really, really good and, my understanding is that there are not many like, web game companies here in Finland. Am I just like, out of my league or, what's the situation? Where are your clients now?

Ren

There aren't too many of them. I would say that the ones that do exist are quite quiet. They're very, What's the word? The. They're very in-house.

Wanda

Yeah.

Ren

So to say, so we have, we do have a few clients, of course, within Finland. Yes. Then there are, we have, not partners, but potential partners outside of Finland as well. So there are quite a few of these larger companies. I can't really elaborate too much, unfortunately. It's like I'm tiptoeing, I'm tiptoeing.

Wanda

I I'm getting it. But it's nice that you elaborate as you can because like, I believe I'm not the only one, like, within our listeners who is not too familiar with this specific topic around game development. So, it's perhaps, like it's an interesting because, for example, at the moment, in Jamk's game education program is very unity focused.

Jani

Yeah.

Wanda

And there's, there's like, basically a certain type program of, like a framework. It gives the framework where the basic skills are being taught and so on. But then again, like if I think about, you Jani, you are

like a specialist in these technologies and you explored a lot and made a lot, there's already like a big gap between the people who matriculate with the like, knowledge that comes directly from the program and then like what, what you have already built around it. So, if you think about the knowledge that you have, how would you, basically, elaborate or what kind of, skills do you think it should be built on? In addition to the things that are already being taught in the program?

Jani

Yeah. I mean, at least like the web development is not currently, as far as I know, at least when I was still a student, it wasn't a big part of the. Like, like the game game production students curriculum. But of course they do web development in the other, in the Finnish, tietojenkäsittelyn koulutusohjelma

Ren

Yeah.

Jani

The Finnish language version. It is focused only on web development and data. So so that's that's a big difference. But they don't do any WebGL. So there's no, no nothing related to that. But I think in general it would be good especially like WebGL because it offers so much more like possibilities in not not just games but almost all that software software currently we are using like Microsoft Office, for example. Although all the office suites can be used directly from the browsers, they are all like web apps and people are building a lot of web apps currently, and I would guess many of them do actually use WebGL. Not just normal, but like standard websites technologies, but actually running little apps inside of them as well. So there's not not just the game industry that you could utilize those technologies, but you can also utilize them like in other industries and not just make money straight out of games, but out of those types of web apps as well.

Wanda

So this is a very like a Jyväskylä perspective to the thing because like, even though we have a thriving, game development in the scene here, we don't have any of those, like, massive exits, down in Jyväskylä. So we don't have that kind of game industry city reputation yet. But, this is also why we at Expa, we do a lot of, education for, like, all kinds of industry partners about the possibilities of game tech. So that basically what the game professionals can also do, what kind of, like use cases do you have for web technology? No, not game technology and basically gamification also in other industries and yeah, that's why it came, came to my mind. But yeah, I, I actually saw that, you were squirming in your chair when I, when I was talking about the games education program and the frameworks of like, built around certain tools. So do you have a comment on that Ren?

Ren

Yeah. Well, specifically for web games or web technologies. It's one of those things where to make the decision to use a html WebGL, when creating games. It's a business, of course, and yeah, lacking in unity. For example, it's a it's a it's a nice engine. It's a great engine. But you know, you're not going to

create a website using unity. You are not going to create, you know, embeddable web UI using unity. You can do this using the Quicksave toolkit, which is great. Our entire Studio website is a. Was made using the Quicksave toolkit and it's you know, there's no code involved with that either. But, yeah, unity is great for of course. I guess locking in people in the education system. Sure. But it's also great for creating very general things. But it wasn't made with the web in mind. It wasn't originally thought like, yes, unity will be pushing web games. So it was more of an afterthought, which is unlike our Quicksave toolkit, which, you know, it's the forefront. It's the it's the forethought of creating web games. Yeah. And like I said, making web games is definitely a business decision because you have to consider the platform you'll be publishing to, if you are able, with, you know, web platforms, you're able to circumvent things like, you know, paying additional or like paying a fee for AIPs. And, you know, giving money to, Big Daddy Apple and all that.

Wanda

Yeah, yeah.

Jani

Yeah, I guess that that's one one big thing about the web is like them, actually, actually, the publishing part and that and then like the development pushing new releases, it's much more like easier in web web applications than it is if you have to go to a store somewhere, Microsoft Store or Android store or whatever, and then just to have go through, have to go through their pipelines to get that new thing published in web, you just have a web hosting server and you push the thing there, and now it's published. Yay!

Ren

Oh yeah.

Jani

So it's it's it's quite, quite like different different experience. Like the managed management is much easier for that builds.

Wanda

Yeah. So basically the choice of tech now we in the beginning touched on workflows and the team dynamics and like the design thinking and all of that. Now we're also kind of coming that it also drives your choices in business. Your business model of who we're clientele is. So after all, like your choice of tech can dictate a lot. So, we're coming to the end of our time here. So, do you have any final thoughts, on this discussion, or how would you like to wrap up.

Ren

Web games five WebGL. You know, these are emerging technologies. They're definitely going to make waves in the future. They're making waves right now. In fact, definitely something to take note of, keep track of. And, you know, of course, I have little doubt that we'll see more of, you know, web games and

web technologies introduced inside of the education system as well.

Jani

Yeah, I definitely hope that that as well. And one thing about the emerging technologies in like WebGL is that of course, there's the webGPU incoming that gives even more possibilities to web. And also one of my personal favorites and passions is the webXR. So I really I've done a lot of demos for like augmented reality apps through a website, because nothing is as useless as an augmented reality app that first you have to download from Google Play Store to get some nice graphics on your pizza menu or something. If it's just a QR code, go straight to the web. And so it there, it's it's just awesome. So that's one thing that I'm really looking forward to. Like when it's it's still a work in progress. Then the WebXR stuff. But that's one of my things that I hope that will become like more available soon. I don't know if you have any, any thing related to that cooking up.

Ren

No comment.

Wanda

No comment. But thank you so much for sharing your insights on for this great this this great discussion. And this was the DGCpodcast this time. And thank you for listening. And tune in next time for more interesting game industry discussions. Bye bye.