

I am just tickled pink to be here. It's a wonderful group of speakers, and it's been wonderful chatting with several of you in the audience. There's a lot – in terms of experience design, we're at this wonderful threshold of discovering in a sense a whole new country, very much like the Columbus example that Dave just spoke about. And it does, yes, indeed, involve games, and so that's what we're here to talk about, show you a little bit about my research.

So essentially what I do is I am a player experience designer, and XEODesign is the first player experience company. I make games more fun, and I've run XEODesign for the past 18 years. We've improved over 100 million player experiences for companies such as EA, Ubisoft, Sega, PlayFirst, LeapFrog, Cartoon Network, Nickelodeon, all of these different companies. And we've done that by working with amazing teams. We've worked on three in the *Myth* series. We've worked on the *Sims 2*. We've worked on many of the *Diner Dashes* coming out of PlayFirst. And so with this, what we've done is we take our clients to that next level of play.

Where I started, sometimes it's helpful to know, is that I have an undergraduate degree in cognitive psychology from Stanford. And essentially, I like to say I learned three things at Stanford. One is how people think, learn, and remember. I also learned how to make documentary films, which is how to get people to tell you their real story. And I learned how to program a computer. So I take these three things to take my clients to that next level of play. Here's some of the companies.

And what I'm also, though, most known for is the research that we've done called the Four Keys to Fun. And what this is, this really defines what I mean, at least, about the term "player experience." Basically, it's the relationship between the interaction and emotions, basically the interactions that players make and the emotions that they feel. And this relationship is what creates the experiences that players feel during game play, and during good game play it's even better.

We've applied this model to even our own games, so through our sister company XEOPlay, we've published a game called *Tilt*. And actually, what I did is I took this model, the Four Keys to Fun, with me to iPhoneDevCamp. And we actually teamed up with Joe Hewitt, and I designed it, used it to invent a whole new type of game. It was the first game to use the accelerometer on Apple's platform, so it was the first iPhone accelerometer game.

We only had two Web pages and one YouTube video, and yet we were able to drive 250,000 visits from people coming to check us out. And so that shows you some of the power of what the – some of the power of play can do.

We now have a new version called *Tilt HD*. It's on the iPad. And we're using that to tune the game that we're actually gonna release on the iPhone along with a metagame. And for those of you coming to my play shop tomorrow, we're gonna talk a little bit more about that as well.

Here's the game here, and it features Flip.

*[Sound effects playing]*

And basically, Flip gets left all alone in the blighted ooze that was once Shady Glen. And Flip's too young to crawl, so you, the player, have to help control gravity and wind, to eat carbon out of the air, and gather water and seeds to save Shady Glen.

It should be noted that these games – there are no buttons to play. All you do is you just tilt the controls, and we base that on what people – that action, that interaction created an experience that people liked about the Apple platform to start with, and then we could extend that enjoyment into a game. That's what really helped make these so popular. *Tilt HD* was a No. 1 app in ten – or top ten app in ten countries when we made it free on Earth Day. So it became very popular.

So what I'm here today to talk to you about is how to use emotion to do your job of interaction design better. Not just add fun in a general sense, not just paint on badges or do check-ins. For too long – I really want you to rethink what we mean by interaction design, because for too long user interface/interaction design has focused on really serious-sounding quality metrics and ignoring those that involve play. And yet play is integral to many things that we do as humans, and it's really a vital ingredient to learning.

And our designs, your designs, all of our designs, create emotions every time the user interacts with them, whether we design those emotions or not. So, again, we're in this watershed, this wonderful moment in history where we can discover this whole new terrain of human experience coming out of each individual choice that people make.

So I'd like to start, though, with where my fascination with emotion kind of came from, is I was – at the turn of this century, I found myself in Egypt. I was standing out on a temple, on the top of a temple in the middle of the desert, in Dendera, looking out of the desert.

It was a hot, dry day, and my lips were parched, and I reached down for my canteen to get that last sip of water, when I stopped and stood in amazement because there at my feet, someone had carved a game board. And I thought, wow, sort of – two people had stood where I stood and thought to pass their time with a game. And I wondered, what would those people think of the games we play now? And then in the year, say, 2020, what kinds of experiences did I wanna play? So 20 years ahead, what kinds of experience would I wanna play?

And I was thinking about this, that I realized that, as a designer, everything that I knew would have to change because we had neither the tools nor the language to describe experience in any real deep form. And this was in, you know, the year 2000, right? And we had no way to measure those experiences with players.

And so it was that initial response – or that initial experience really shaped the way my research went. In a sense, I became – if you look at – I became fascinated – like Newton watching apples fall. This invisible pull emotion has on human action.

Take, for example, any group of kids at play. In the games that I was designing for my clients, I had thousands of rules, and yet they were lucky if they produced three emotions. Yet looking at any group of kids at play, you see the entire pantheon of human emotion coming from a game with a single rule: tag, you're it. Wow. Can we do that?

Imagine yourself in the year 2020. Whatever kinds of experience, whether they're game experiences or accounting experiences or quilt-knitting experiences. In 2020, what kind of experiences do you wanna unlock for yourselves, as well as the people your software serves?

And there's a potential – if we collaborate and if we do our job right, we could actually unlock human potential of 6 billion people, around the world, working together to improve quality of life through play.

And so that's what I mean by the future of user experience as play, 'cause if you go to the average workspace, which I love Dave's example of the cubicles. And basically, if that were a zoo, the Humane Society would protest. The environment and tools are so ill suited to the task at hand, the work that needs to be done. The cognitive process and the emotional process is just really ill designed.

And that's the reason why so many escape to Facebook and Twitter and FarmVille and Solitaire during the workday. Essentially, boredom is created through repetition and lack of interest. And if you think about it, why are water coolers so popular? Well, it's because the tasks – there's very little social interaction in the tasks. That's why people are hanging out at the water cooler. Why do we need coffee? Well, there's a lack of challenge and reward system to mastering something difficult, baked into the task itself.

And this is what game design can teach us. It's not that we need to oversimplify the world in order to make life better. We need to recognize that human beings are complex, pattern-matching, creating machines, right? We use systems, and we need the stimuli and the challenges and the structure to accomplish new goals continually, again and again and again, something new, something new, something new. And our work environment and the way that we structure, all needs to factor that in. It's not just any type of fun that we're going to apply. We want specific activities that improve life.

And so if we think about – if we look at games and other types of user experiences, it's that there really is something missing in the practice. Cognition – if we're designing interactions, cognition is only half the story. There's something else that's missing. If we look at players, what makes them have fun, what they enjoy the most, there's some other systems involved than usability, time on task, heuristics, that sort of thing. That's only a piece of what was going on.

And it's ironic that since 1850 – since 1848, in the case of Phineas Gage – we've known that choice, in choice, emotion is the silent partner, is cognition's silent partner in every decision that we make. Every decision you've made in your life has been made at an emotional level first. And if you don't have – if you have damage to your emotional system, you actually can't make a choice itself. You could rationally describe it, and even the consequences, but you can't actually make the choice itself. So we as interaction designers, as user experience experts, we've gotta recognize the importance of emotion in our games – or in our software, in our interfaces.

So really, it's all about experience design. I like to think of experience design as two wheels on the bicycle. There is the rear wheel, which is – a bike is not going anywhere unless the person can find the pedals, right? So that's where usability comes to the front. They've gotta be able to find that drive shaft and make that bike go. And then there's the front wheel, and that's where player experience comes in. You've gotta master new mechanics. Researchers have new techniques; designers have new methods, in order to make that front wheel fun. That's how game design is gonna change what we do as experience designers.

So player experience, again, to me, this is what it means to me, is how player interaction creates emotion. And that's the main point for the rest of my talk, because without emotion, really there is no game.

Neuroscience backs me up here in that emotions help people do five things that are vital tasks in games. It helps us focus. There's a reason – ever wonder this? There's a reason why there's a boiling lava monster in doom on your iPhone. It's like you're gonna focus on that, right? And likewise, it's gonna help you remember how to deal with them and then decide.

For example, this is in *Diner Dash*. When your customers leave, the first time you see how angry they get, you're gonna remember "Oh, I better not do that," and it's the emotion that's helping you remember and guide you through that experience. So focus, remember, decide, helps you perform, and helps you learn. We'll go into more detail about this in my play shop tomorrow.

So what we did was we looked at people at play – people playing at home, school, and work, young and old, male and female – playing everything from *Tetris* to *Halo*, on any platform that they prefer. And these were their favorite games, and what we noticed is that they were doing a whole bunch of different things.

But they were experiencing – their favorite moments often had some similarities in emotion. So we did a cluster analysis of those observations, and we noticed that, wow, there was hard fun, with frustration and *fiero*. There was this easy fun. Different types of actions were creating curiosity, wonder, and surprise, at different times. And then there was serious fun. Excitement, relaxation, and value were coming out of those experiences. And then lastly – that's for last – is people fun, okay? So we see

amusement, *amici*, *amiero*, admiration, *schadenfreude*, *naches*, wonderful social emotions that were really driving play.

And it was the best – really interesting. Like, what were the mechanics behind there? And I thought, "Wow, we see all these emotions in players." The question – I just had to ask the question. It's like, well, if we really identified where these emotions came from, really understood, could we create a palette of toolbrushes, in a sense, different actions coming from games, that each were connected to a different emotion? And then we could, in a sense, literally paste Velcro onto any screen to grab attention. And the second thing we can do is we could then paint it with – color it with any emotion that we choose. We could paint it with emotion to match the brand or to match the task at hand.

And that's how the Four Fun Keys work. Basically, it's a new approach to interaction design, coming from games, where we can go into different areas of the experience and then make an adjustment to make things more fun.

This is what the model looks like. This is the one we'll be working with tomorrow. And this is the Four Keys to Fun. And I just have a moment just to take a look at this and see what you think. So there are the four keys, and there are different tasks that are supported for different work environments. So in a sense, at the center was the PX, the player experience. There are the actions, so these are the verbs. Those are the handles of the toolbrushes, if you will. And then at the outside, on the leaves of the clover, are four different groups of emotion.

There is the – at the top, we see there's the hard fun of challenge and mastery, you know, the frustration that leads to the feeling of winning. There's the easy fun, which is – that's the brass ring. That's the badge – I mean that's the point from the score. The easy fun is much more about exploration and role play and creativity, and that's the vehicle – this interaction is a vehicle for the imagination. In work, you can't – you need both, right? You need to accomplish that feeling of accomplishment, and you also, though, need to problem-solve.

And then we slip down to the bottom for serious fun, where it's providing meaning and value and creating excitement through interactions such as repetition and rhythm and completion and collection, and those create other kinds of aspiration and obtaining value. And then lastly, there's people fun, which is all about social interaction. And I, of course, am trying to condense, you know, 18 years of research into two minutes here and one slide. But that's the essential relationship is a sense that, if you can then choose your interactions, you can then adjust your emotion profile.

So how did we do the research? Well, let's take a look here at a couple players, one player. So these are three – he's playing *Star Wars Galaxies*, the tutorial for *Star Wars Galaxies*. And what do we see on – how many people think that there are three – all three images are a player enjoying himself? How many people think all three? Just raise your hand. Okay. All right. Some. And then how many people think there are two, two people, two of 'em are – two of the photos are that? Okay. Quite a few more. All right.

And then how many people think only one? Only one is enjoyment? Okay. Back down to the thing.

Well, it turns out that it is actually only one. It's this image here on the far right. But it's not because we can see he's contracting his lip, because we can see his teeth. It's actually because he's contracting the orbicularis oculi.

So for this research, what we did is we identified specific emotions by using Paul Ekman's facial action coding to measure seven emotions in the face, other emotions in the body. Moment to moment, we took those video clips and then tagged them from their emotions. We then sorted those video clips by emotions, and then that's how we – and then from those emotions, we then looked at, well, what were the players doing? And that's how we came out on mechanics. So that's a bit of how we did the research.

So let's take a quick tour through the Four Fun Keys and see if we can do this in our time together. There are white papers on our Web site if you want more.

My favorite quote, though – my favorite in games is this one. This is a player's wife saying that "It's easy to tell what games my husband enjoys the most. If he screams, 'I hate it, I hate it, I hate it,' then I know two things: (a) he's going to finish it, and then (b) he's gonna buy version 2."

*[Audience laughter]*

What usability metric is gonna measure that kind of devotion, right? What kind of – that's really twisted. You know, it's like, what's going on there? Well, it turns out he likes hard fun. And in hard fun, it's not simply going to A to B. You can't just push a button and win. Push a button to print? Yes, that I like. Push a button and win the Grand Prix? Push a button and my term paper gets written for me? There's definitely something really, really missing.

And turns out, to enjoy the process in games, you need some challenge. So it's not just add a point; it's "now we need some challenge." We've gotta have a clear goal, obstacle. You've gotta be able to overcome that with practice, over time. You need to fail. Basketball is a fun game because why? Well, the hoop's this small, and it's way up there. It wouldn't be a fun game any other way.

And so we look at, in the literature, it's very similar to what Shiksha Mahai had already said with his model of flow, and I highly recommend checking out the model. We have added to it here a lot of other concepts from game design, which we will be doing in my play shop tomorrow.

But the important thing is the ideas that basically you can't – player skill over time, if it doesn't get more difficult, players will leave because they're bored. And then on the difficulty on the Y axis, if the game gets too difficult too quickly, then they're gonna leave 'cause they're too frustrated. That's the art of game design: balancing player

frustration and skill. And what you want, Shiksa Mahai says, is to be in that zone, that white cone in the middle.

We notice some other things in our research. Most importantly is that, in order to get one of the most important – the Holy Grail of game design is that feeling of winning, right? Which we call *fiero*, since there's no real good word in English. It's that personal triumph over adversity.

In order to get that, you have to frustrate the player so much, they've gotta fail so many times – failure is good in games, some failure – and they wanna throw that controller through the window. And at that moment, if they succeed, what happens? Well, they look like this. Right? Okay, "Yesssssss." You know, "I just got the boss monster"; "I just won the Grand Prix." Unfortunately, in the upper right here, she just actually got her character to move.

*[Audience laughter]*

So that was usability. So it can come out of usability as well. And so those are kinda the basic emotions.

So what does it mean for user experience design? Well, we've got – so it's easy to say, "Hey, let's add points." But be careful what you wish for. Any kinda point system, people will gang. They'll change their behavior to maximize their score.

So one of the ways that Twitter broke was by putting that big number underneath your name, and everyone plays the "follow the leader" kind of game, like, "Well, hey, I follow you; you follow me back. Our numbers go up." But then what happens to your RSS feed? You're kinda chasing what Mary Hodder and Kaliya Hamlin call your personal hype quotient, and that breaks another – that unbalances the game. They've added lists to kind of mitigate that, but it's still pretty broken. And so what is it you wanna think about? Do ideas encourage?

Another example showing some slightly different things is Mint. So Mint takes some other principles, in the sense it simplifies the world, and that's one of the things you have to do for a game. You have to simplify their choices, providing clear goals and to amplify feedback. Now, I don't know how many times bigger those bars are from an average bar chart, but that's like five or six times. I mean, it's pretty clear what this screen is about, and it's amplifying. It's like, "Woo-hoo, yes, you had a profitable quarter." And it's almost – in some instances, it's wider than it is tall.

And so that game or toy-like feeling comes from amplifying the feedback and really getting across something that's very important for humans, which is mastery. So hard fun is all about challenge and mastery. It's not about ease of use. It's all about overcoming obstacles. Now, hopefully these are obstacles in the work environment and not in the tool, like that poor player. But work essentially is hard fun. What makes work feel good, the good part about work, is not just slipping 'em off real easy. What feels good about

work is, like, yes, you went home and you actually did something. You feel accomplishment by having been frustrated, by having to apply your utmost efforts.

So that takes us on to another thing. So that's mastery. Let's talk a little bit about easy fun, which is all about going beyond the challenge. You can play basketball and not keep score. You can just – dribbling the ball feels fun. You can role-play the Harlem Globetrotters if you want. That's part of what makes basketball such a popular sport.

So in addition to challenge that we have here, as any racetrack designer knows, is that adding curves adds more fun. Now, it's not just because it makes it more challenging, the curves, but the curves also create novelty, exploration, this new space that you have to then navigate through, so it changes the task up. In fact, in *Grand Theft Auto*, what we found is that players on a mission from Point A to Point B then get offered other things, like, oh, plate-glass window, freeway exit ramp, parking meter, and like offers in improv theater, it's up to the player to decide whether to interact. And what happens is that these moments of interaction on the side, if they're easy fun, then enliven the player experience as a whole.

It's why I like to think of easy fun as sort of a combination between the Wii-mote and *Fantasy Island*, you know, aspirational fantasies, and one of my most fun games, which is bubble wrap.

[Audience laughter]

It's just fun to do, right? It's just fun. Like anyone who has a Mac here, if you scroll along that dock, woo-hoo, getting all of those little icons to bounce up and down, that's just fun. I could be completely happy and entertained for about five minutes. And actually, why don't I – no. I won't do that, no.

But that's what it's all about. It grabs attention, and it stimulates us in conjunction with hard fun, so it's slightly different.

I like to think of easy fun in another way, which is a Japanese garden. And it makes choices more interesting. They don't have a sidewalk in a Japanese garden, right? They've got stepping stones, and they're placed just far enough apart so that you have to bring your attention to the here and now, which is exactly what the interaction design of a Japanese garden is supposed to do. Stepping stones too far apart, you fall through; too close together, you get sidewalk and you'll just run right through the environment. So placing these stones creates more interesting choices.

How can we see that in games? Well, here he's playing *Splinter Cell*. Shot a hole in the fish tank. You can see the water coming out. Look at the curiosity on his face. You see it in the eyes and in the mouth. Watch what happens when the level of the water reaches the level of the bullet hole. Okay, you see that? I'll do that again. So, clearly enjoyment. So we've got a smile going. We definitely have the eyes opening and contracting. He

enjoyed that. That's not part of the mission. It isn't like, "Hey, go shoot a hole in the fish tank." It's just there, right? And he does it.

Lots of things. The pure joy of interaction, as I said before, really drives a lot of interaction. So whether it's Koi Pond on the iPhone, where you're feeding fish or just tapping the water, or shaking the controller for Urbanspoon, to make that – just the pure sense of going forward.

And our players tell us that we've got – in our game, we've got – it's just the idea of tilting. So there are no buttons in the game. All you do is you just tilt the device to play, to move the character, to control gravity and wind. And you wanna steer Flip towards – away from the green blight and then towards the, in this level, white dandelion tufts, so let's take a look at how that works.

[Video plays]

So there, it was just the sheer newness of that interaction is interesting to players.

I don't have time to go into a lot of detail here, but you can see it's sort of this novelty versus the expected. There's this spectrum. And that you're hopping from stepping stone to stepping stone in these unique experiences.

In terms of software, we've got the mystery egg in – how many people have played FarmVille? Yeah. Oh, really? Wait a minute. All right, so how many people have played FarmVille? Okay. Like five of you. No, maybe ten. And how many people have heard of FarmVille? How many people are on Facebook? Okay. What games are you playing, if any, on Facebook? All right. Ah, okay. Okay. FarmVille, you should check it out. It's what game designing is leaving behind, but we're going on.

But anyway, think about Google, the way that they've done their logo. This is easy fun. This increases curiosity, and if you are a search engine, what's the most important emotion that you need? I mean, there are two, really. But the most important one is curiosity. Right? 'Cause if you are curious as the user, as the researcher, and if Google can make you more curious, then you'll actually be able to more easily focus on going through that whole wall of links and reading all that text, because you're intensely – "I've gotta know what happened on *Lost* this weekend." You know, that kinda feeling. If you could engender that in a search engine, you've got a much more efficient tool.

They've got this "I'm Feeling Lucky" button. And the humor in here, a little bit more of what we call people fun, but that also engenders some great things; it refreshes the task as they go. And it creates imagination.

So easy fun inspires in relief, and people will balance the game. Like, if they get too frustrated in a racing sim or they get too frustrated in a matching game on *Diner Dash*, then they'll go do something fun just because. They'll drive the racetrack backwards.

They'll put all their Sims in the pool and pull out the ladders just to see what happens. Nobody here has done that, right? Nobody has tortured Sims?

That's the thing with our next thing. We're talking about serious fun. One of the classic mistakes – if you ever have to do an educational game or try and make your educational site more game-like, the classic mistake is to hand your player a nuclear reactor simulation and then don't let them do what? What would people really want to do – what do you want to do – what's the very first thing – if I did that to you, what would the very first thing you'd wanna do?

*[Inaudible audience responses]*

Yeah, core meltdown, right? It's like, "Oh, the instructor says no, no, we don't wanna teach 'em how to do core meltdown." It's like, it's a game. Simplify the world. Amplify the feedback. And suspend the consequences so that you can freely explore, and then that will actually – because it's a game, you actually learn more of that domain than you would ever be able to experience in real life.

Games are not just about badges. In fact, James Paul Gee talks about, if you can master a simulation, you master the content. And I predict that we will soon have simulations as a standard SAT format, in addition to multiple-choice and true-and-false and those kinds of essay questions.

Anyway, so let's move on to serious fun. So it's really – serious fun is this opportunity – it was really strange. We kept seeing this over and over again. It's this really strange thing about this opportunity to change how players think, feel, and behave. People at the time – and, again, this was in 2003, 2004 – were playing card games to work out. They're playing *Dance Dance Revolution* to lose weight. It was really odd.

What were they doing? Well, it was because games were – the excitement from games were enhancing an otherwise boring task. So it was getting them something that they already valued, accomplished, in a way that was much more enjoyable. And so that's what these serious fun mechanics are all about. It's their reward systems that create values before, during, and after play. It is not just giving a badge. You have to be very careful if you give badges for stuff. You can actually demotivate folks sometimes if the task is intrinsically motivating in and of itself.

But stepping back, what I'd like to think of – easy fun is the bubble wrap of game design; serious fun is like the Swiffer. Swiffer, of course, is designed by IDEO, one of my favorite product design companies, and you always see – we always see it, like, picking up bright confetti little object thingies, right? Not what I see at home, but we see that.

And for me – I don't know about you, but for me, this looks exactly like *Bejeweled*, the game of *Bejeweled*. Because why? Well, collect all you can. The goal is collect all you can, and enhance your progress, and give you that desire to aspire and acquire. There's a reason why there's a bit of revolution in home vacuuming equipment. They all have clear

canisters so you can see all of the little bugs and whatever getting sucked up. It enhances your sense of progress. It enhances your sense of work well done.

Jobs don't do this, right? Jobs really don't do this very well at all. It's often delayed feedback, and the goal's unclear, and we've got this – and if I get any feedback at all, it's three or four months later. And right now – but it's like, I wanna do the Swiffer. It's like, yeah, I'm getting my work done, and boy, it feels good.

Nobody here has ever done this, I bet. Nobody here has ever watched their hard drive defragment.

*[Audience laughter]*

That's serious fun. In fact, Apple is real genius. They've got all four keys in all of the stuff that they do. And by the way, best-selling games, as I said, have all the four keys. Other objects definitely do apply the keys as well.

And with Apple, you ever wonder about this? But I thought this was just a stroke of brilliance is, that's a *Bejeweled* board too. Right? Basically your mission on the Apple operating system is to collect as many brightly colored gemstones, by using their app store, as you can. There's a real delight to that. And that's all serious fun as well.

But before we leave serious fun, I think there's one more point that's really important to make, and that is, it's not just about the numbers. So it's not just my number going up or the number of badges. It's not just about money either. So work is not – and work is not about money either. Work, in human endeavor, really gets better if it's attached to what? If it's attached to something meaningful, right? If it has meaning, if it attaches to my values, if I can express my value or get some goal that I really care about.

And in our game, players are telling us that the – for *Tilt* – is that the environmental theme makes them feel better about their kids playing, the educational value of teaching about recycling or alternative energy or eating oil, that sort of thing. It sends a positive message to their kids, and that's part of the enjoyment. And then in the global game, all the *Tilt* points that you earn actually go up to a global scoreboard, and then, together, we kind of collaborate to push blight away from the real world, from the entire real world. And there's a real-world metagame that we'll be announcing soon.

So serious fun's graphs look a bit like this. The model looks like this. We have value creation and time. And what I do with my game design clients – and other clients as well, 'cause I've worked with Roxio and Cisco and Oracle, other companies to help them improve their user experiences – is that, well, what's happening at 10? What's the reward at 10? What's at 15? What do you want the person to accomplish at 30? At 60, if my company – if my client, in the download casual business, has not converted that player, like they wanna buy, that person's gone. They've lost that customer. So you better believe, at that 60-minute mark, they're paying attention to, 'cause that's – you've gotta have that player really involved. And then it's not just me, but it's me, my friends, my

community, my world, this whole spectrum of different layers of value and meaning that's important for people at play.

So serious fun can provide meaning and meaningful experiences, which brings us to our last thing, which is the kinds of interaction that players find the most meaningful, which is people fun. It's friendship, because as we all know – I'm sure everyone in the room would agree – is that games are just more fun if you invite friends.

Here's a mom and her son playing *Wii Boxing*. For her it's this great opportunity to work out a little parent-child aggression.

*[Audience laughter]*

But what's going on here is there's social bonding through that activity, that they're interacting in a way – and basically, people fun is the excuse to interact with your friends. It's what I like to call – we've gotten bubble wrap and Swiffer; now we're going to mango. People fun is all about mango, for me, and it would be something actually unique for you. And why mango? Well, if my sister says the word "mango" to me, I'm doing that on-the-floor-rolling-laughing thing. And I'm sure you've got someone that can do the exact same thing with a different word yourselves, right? And why is that? Well, because, well, you had to have been there, or it was a long story.

The mango to us is a social token. It's something symbolic in nature that increases in value through use. And as it gets passed between people, back and forth, more emotions build up on it, more excitement, the bonds. It's weaving a social fabric between the participants. My mother would love to know what the word "mango" means, but my sister and I are not telling, right? No, 'cause that's us. And so these things kept grouping in all kinds of fun things.

Objects can be social tokens. In our case, games were. In our game, one of the reasons people shared it 250,000 times was that a lot of it was over-the-shoulder play. It's a single-player game, but yet they were demo-ing it to have a discussion. And in fact, again, the brilliance of the Apple platform is that if I were to take my iPhone here and show you photos, what you would do is, well, you would take your finger and you would, you know, swipe, right? And then you would pinch and zoom, right? Like that. Well, now, if you were to do that same gesture on the back of my hand, we better be on a date or something.

So the social gestures – the gestures you use to interact with the operating system have a social emotion profile. So they baked social emotions into a social device through the types of things that they – the types of interactions that they chose to support on the platform. And that's why people tell us, "Petting my iPhone makes me happy." It's also why – a little bit why – there are so many people, plant, and pet games on Facebook. It's because the emotion profile around the interactions matches the context in which they're used.

BJ Fogg talked earlier about putting hot triggers in front of motivated people. Well, what makes something interesting or fit really well is if that interaction generates more of the emotion that I was there for in the first place. So if you think about Facebook – and a great example is the "like" button. I mean, I just "liked" your status. What does that mean, I "liked" your status? Well, actually, what it really means is we're primates, and I just picked a digital flea off of you just to say hi, and I like you, and then we reconnect in that very simple way, and then you can comment and go on from there. And that's the way you can express your *amici* or something.

*Ocarina's* an iPhone game, and you can – or a musical instrument you play on your iPhone. You blow into the iPhone, and you can play the flute. And then you can then look at – another view has a Google Earth-like view where you can spin the globe, and you can actually listen to people playing that same instrument around the world. And so that sense, that experience – this is experience design, folks. This is not badges; this is not points. It's very kinda game-like. And that experience then – players tell us it creates this sense of wonder and connection. Sonic Mule – Smule, who developed this app, they're brilliant.

Another example is Flipboard. How many people have been playing that on their iPads? Yeah? Playing with that. Listen to my language: playing with that. Yeah, well, it's a social media thing, and just like, wow, the way that the pages flip, that's easy fun. And then the content is serious – or it's people fun, 'cause these are all my Twitter streams, right? This is my Twitter and my Facebook, all coming up, and it's really cool and formatted magazine format, and it's animated.

I just wanna make one more point about the people fun is that it does not have to be about "people" people. It can be about pets. Tamagotchi's mechanics are very well established. This is *Tilt* in various – this is Flip, the main character for *Tilt*, and you can see Flip is just that character at iPhoneDevCamp. And then we see an intermediate version, and then now the version that's in the game that's shipping. And by creating something that you care and feed over time, that creates social emotions that can increase attachment to your game or your software.

And so we've talked a lot about experiences now, and I wanted to sort of wrap up with a couple of closing thoughts and then show you this video, which is all about people fun. So these are folks playing people – sorry, they're playing *Rayman*, a mini-game in *Rayman* on the Wii. And I'm not even including the image of the computer, or of the game, because really what's happening is the game designer was not designing the game. It's kinda like Shakespeare. Shakespeare designed the emotional space between characters; game designs design the emotional space between player and game.

Watch on the couch. This is what people fun looks like.

[Video plays]

So it's fun to move together, right? It's fun to dance.

*[Video continues playing]*

A little bit of trash talk. Surprise there.

*[Video continues playing]*

*Fiero.*

*[Video continues playing, ends]*

*[Audience laughter]*

And this laughter we're having now, that's a social emotion as well, right? And that's what creates – it breaks through something, a cognitive – you can be so in your head and so in that – then that emotion just *whoosh*, it takes you to another space, and it can actually increase the tension.

So people fun – there are more emotions in the people fun quadrant than the other four combined. Here are some of the emotion cycles or chains. You've got – player interaction creates amusement, creates social bonding. I talk about social bonding in terms of *amiero*, to have a nice, short word for it. You also have gratitude, generosity, and elevation.

But the main point is, like, interaction and emotion create what we call an emotion profile and that you can actually choose – if you remember the paintbrushes – by choosing, the types of choices you put in a user interface, it's not – in Facebook, it's not a – you know the Poke button? Brilliant. Brilliant, brilliant, because it's really one of the – it's a fixed word, but yet it has a lot of social-token emergent qualities to it, because you poke somebody in the ribs, which – are you just being friendly, or are you flirting with me? There's a lot of ambiguity around it. And then it's not – it could've been – you think about "wink," "handshake," "decapitate," "slap." That's an interaction design. It's just pushing a button, like "like," but by putting it in that context, dramatically changes the amount of social emotions that you feel during play.

Social emotions from people fun also do some other important things. We've done a lot of research on the viral distribution, the role in viral distribution. We'll talk a little bit about this in my play shop tomorrow. And there are also other places to get some of the stuff that I've spoken about. But then essentially is that you can actually design – by connecting these systems through game mechanics, through mechanics, through choices, you can actually intentionally design viral distribution of your application or of your game, because social bonds are important.

Teamwork requires people fun. The emotion that people feel when they get something to share is something that we can actually design in our games, and who doesn't wanna

spend more time with their friends? It's very enjoyable, right? Most of us would rather spend our time around the water cooler.

So in summarizing, I'd like you to think of games as motivating systems, not badge systems, not point systems. Look to game examples, because they innovate. And I've been talking about games for the past 18 years, and designing them. And they innovate faster. They had pie menus, they had voice control, way before consumer software had them. And then they've got more human factors to make a game good, a lot more human factors than just ease of use.

And they don't think of their players as users; they think of them as players. And that's really important. And not just any player, but "Hey, I'm playing *Diner Dash*; I'm a waitress. So that whole user interface is really designed to make me feel more waitress-y." Or Sly Cooper: "I'm gonna feel more like a thief." Or in *World of Warcraft*, I might wanna feel more like a mage or more like a sorcerer. And they do stuff in the UI to enhance that feeling. So if you can find a game allegory to what you've got, put that into your persona profile, you've got some really fun things.

As I mentioned, that interaction design, whether you do it or not, the interactions you design – your designs are speaking this emotional language whether you intend it to or not. You know you need to do fonts; you know you need to do art; you know you need talent in audio. You may not know that your interaction design is also sending an emotional message.

And then social emotions – that's what drives all of Web 2.0. So in fact, what we found is that the – with the four keys is that – we released it in 2004, and in 2005 I gave a talk, screaming at the top of my lungs, like "Game industry, wake up. You need to put video capture into all of your game software, so people can make customer-created videos that you then can host on your Web sites, and they'll share. This'll be huge. It'll be viral." And people are like, "Yeah, yeah, nice. Nice, Nicole." And that was the same month that a URL, YouTube.com, was registered. So it was a missed opportunity for many, many, many of my clients. They're catching up, though.

Anyway, so now we're talking about player experience design and wrapping it up. And so I'd like you to consider, on your next design project, how you can choose the appropriate interaction, the appropriate verbs, the appropriate actions to create the emotions that you want. Apple has got a lot of social emotions in their platform, a lot of curiosity, wonder, and surprise as you rotate to the accelerometer. We built that right into the game mechanic for *Tilt*. So just playing the game created some of the emotions that matched the platform. And it's that interaction that is what creates emotion.

And so I'd like you to go back to the beginning and think about that 2020. And what would those sorta things feel like? Could you pay attention to the UI like Velcro, in a sense, and color with any emotion that you choose, to match your brand or match the task at hand? And I'd like you to join me, speak with me afterwards or, you know, in the

Twitter-verse. And let's collaborate to fill out this map, because what we see is that I think we've got this opportunity to do something really special.

I think, in my vision of 2020, is I see everyone going to work with an expectation of play. Wouldn't that be a nice world? That's my vision. So thank you very much. I'd like to collaborate with you, and if you've got – I don't know if we've got time for questions. I think we might be right on time.

If you'd like posters, there is a top-secret URL here: [XEODesign.com/UXWeek](http://XEODesign.com/UXWeek). And you can download the PDF, and we'll make it available – it's up there now, and if you want – well, I've written book chapters in the following books, and there are white papers. You can follow me on Twitter. And there's my SlideShare account, and these slides will also be available.

So thanks very much. I don't know if we have time for questions, but you've been great. It's been wonderful being here.

*[End of Audio]*