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Implementing Lean Marketing Systems

Learning thru Gamification

Guest was Dr. Karl Kapp

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Implementing Lean Marketing Systems

Karl M. Kapp, Ed.D., CFPIM, CIRM, is a consultant, scholar, and expert on the convergence of learning, technology and business operations. His background teaching e-learning classes, knowledge of adult learning theory and experience training CEOs and front line staff provides him with a unique perspective on organizational learning. His experience with technology companies and high-tech initiatives provides him with insights into the future of technology. He shares those insights and perspectives through writing, consulting and coaching with clients in the field of e-learning.

As a professor of instructional technology, Dr. Kapp was instrumental in forming Bloomsburg's on-line E-Learning Developer's Certificate, which provides on-line education to instructional designers who want to transition to developing on-line instruction. He is also the lead instructor in Bloomsburg's Learning Management Systems (LMS) administrator certificate program. He also has taught over a half-a-dozen online learning courses to students all over the world.

As Assistant Director of Bloomsburg University's internationally acclaimed Institute for Interactive Technologies (IIT), Dr. Kapp helps government, corporate and non-profit organizations leverage learning technologies to positively impact employee productivity and organizational profitability through the effective use of e-learning. Dr. Kapp is committed to helping organizations develop a strategic, enterprisewide approach to organizational e-learning. He believes that the effective convergence of learning and technology are the keys to increased productivity and profitability. For further information, visit his web-site at www.karlkapp.com.

Transcription of Podcast

Joe Dager: Welcome, everyone. This is Joe Dager, the host of the Business 911 podcast.

With me today is Karl Kapp, he is the professor of instructional technology at Bloomsburg University in Pennsylvania. He teaches a variety of courses to include game design, and how to design learning courses and environments.

Additionally, as the assistant director of Bloomsburg's acclaimed Institute for Interactive Technology, Dr. Kapp helps government, corporate, and non-profit organizations leverage learning technologies for employee productivity and organizational profitability.

In his spare time, he has authored, or co-authored four books on the convergence of learning and technology, with his latest being "The Gamification of Learning and Instruction."

I'd like to welcome you, Dr. Kapp, and, unless you need to clean up the intro, can I start out with asking you should I be skeptical of gamification as just another buzzword or is it here to stay?

Karl Kapp: Joe, that's a good question. I think it's healthy to be skeptical. I was skeptical about the term. I am still a bit skeptical about how some people use the term. I like to use the term gamification to mean taking what's engaging about games and adding them to instruction or adding them to systems.

I think a lot of times people think gamification and they say, oh, we'll just add a badge or we'll just add a couple points, or we'll add a reward. That's gamification. To me, that's taking the least exciting element of a game, the points or reward and saying, yeah; that's the most important. Let's put that on everything.

So, skepticism is good. Look at gamification when you talk to people about adding meaning, about purpose, about mastery, feedback, the things in a story, the things in games/challenge that excite us, not the things on the peripheral.

So, yeah, I think it makes a lot of sense to be a bit skeptical about the term gamification.

On the other hand, I'll also say, let's not throw the baby out with the bathwater. There are some elements of gamification that people are doing that are tapping into only extrinsic motivation and are trying to manipulate people.

But there are also a number of elements of gamification that I think help promote motivation in an authentic way, engage people, help promote learning and promote problem-solving.

I really think that gamification, viewed correctly, is really powerful. Smart consumers should look at gamification with a little of trepidation, but then understand, OK; this is what it's really used for. Then, over here is what it's not used for.

It's interesting; some of the pundits have said that they have already moved beyond gamification. They've gone to gamefulness and things like that, but I really think that the term is here to stay,

Gardner's bought into the term. It has a lot of traction with Bunchball and some of the other companies doing gamification. I think it really does have a lot of merit and value when applied properly.

Joe: Could you just briefly explain your book a little? Being a professor, I didn't take it as a textbook-type book and I want to make sure other people do not. Can you just explain what the purpose of the book was?

Karl: Sure. I've written a book called, "Gadgets, Games and Gizmos for Learning" and just got done coauthoring a book with Tony O'Driscoll. Every book that I'm writing keeps getting longer and longer and several people said, "Karl, people don't want to read a long book!"

So, one of my goals was actually to write a short book. I think I've pretty much succeeded, but the idea behind the book was to give people a sense of what is this term "gamification" and how does it apply to learning and instruction?

The first chapter I naturally, like most books, defined gamification. The next few chapters I looked at the elements of games that are engaging.

I looked at something called the "curve of interest" which is how you track somebody being interested in a game. I took a look at levels of games, goals of games, rules of games, levels of games, those types of things.

Then I did a couple of chapters about the research around games. I looked at meta-analysis, which are studies of studies. There are many studies that show games are effective for learning. Games do impact motivation; they do impact our sense of confidence.

I looked at that; then a lot of people have been saying it's not really the game itself; it's the elements of the game. It's an avatar or the concept of chance or the concept of prosocialization in gaming. So what I did, I looked at individual research articles about individual elements of games and said, "What makes an avatar effective? Why is an avatar good?"

Then I looked at examples. The one thing is there are lots of different types of games. Tic-tac-toe is a game, but so is Halo 3. They're not the same game. They're completely different, and we want to use different games for different instruction. If I wanted to teach declarative knowledge or memorization, I'd use one type

of game. If I want to teach problem-solving or thinking on your feet, I would use a different type of game.

So I have a chapter matching games to content. Then I have a chapter about designing a game. What do you need? What do you need to do there?

Then I have a number of chapters from people in the field contributing. Lucas Blair, who did a great piece on a reward structure, Alicia Sanchez did a piece on games used to the Defense Acquisition University. My son, Nathan, wrote a chapter. He's grown up playing games so what's his perspective? The cool thing about that chapter is a lot of what he said, without reading the rest of the book, matched back to the research, so it kind of validated the research.

Then just a chapter on encouraging people to play games. I think the best way to learn about gamification is to play games and to understand what makes them fun, what makes them engaging, and what elements can be applied then to the typical workflow. So that's kind of a 30,000-foot view of the book.

Joe: I want to compliment you on it because there were certain portions of the book that I thought, "Oh, I know this," or, "I'm going to know that." But you took a different slant on it, areas that I thought I knew.

It also introduced to me some concepts I never really read about in the other books.

Karl: Oh great, thanks, Joe.

Joe: I thought it was an excellent book, and I've read a lot on gamification so far. I think it's a great read. You can pick it up from the introductory standpoint, but if you have been in the field, you're going to learn some things from it, too.

Karl: My thought was if you're an instructional designer you probably don't know a lot about games and developing games. You can pick it and learn about games. But if you're a game person, you can pick it up and learn a little bit about instructional design and matching.

I really try to bridge the gap between hardcore game developers and the hardcore instructional designers and say, look, there's a middle ground here that we really need to talk about. The book was really talking about that middle ground and helping each side understand what the other side thinks about and what's important to the other side.

That was my goal, so I'm glad you enjoyed it, and I'm glad I was able to bridge that gap a little.

Joe: Now, many of my listeners and myself have been running simulations and board games as trainers for a long time. Do we need to be upgrading our skills? I mean, have you converted any of these old simulations, let's say, to present-day gamification methods?

Karl: Yeah, two things about that. One, gamification doesn't always necessarily have to mean technology. Technology certainly enables it to happen, so creating it like a just-in-time board game, for example, is a great example of gamification.

Creating a simulation to teach a buyer how to buy a product or how to place a product, I think that's an element of gamification.

What is really happening now is that a lot of times we felt those were good ways to go, and we thought they worked well, but now we have some empirical evidence that shows that gamification actually does drive engagement.

To be on the front end of what's happening and understanding how that works, we really need to upgrade our skills.

We also need to understand there are a lot of people out there that do not like gamification. In fact, there's visceral response is negative to the term gamification.

I think one game designer famously wrote a blog post, Gamification is BS. Nobody should do gamification; I can't believe anybody's doing that. I think what he missed was the fact that it really translates into engagement.

A lot of training and development folks have been creating engagement, but now the engagement is going to a different level. For example, we're completing a workflow on order entry or on the shop floor, or you're trying to get people to enter their hours.

Are there engagement techniques that you can use to help these people focus on what they already should be doing? Are there ways to help them see the value of what they're doing in a different perspective, framing it differently?

I think there is a need to upgrade the skills and think about how gamification is. Some of the things we've done before, some of the new things that we're doing, and also new combinations of what we're doing, which really makes this a very powerful tool for encouraging learners to be involved, engaged and activated.

What I like most about it, is the thought process. Game developers go through such a different thought process than people designing instruction. If we get instructional designers to go through that thought process, I think they can make some really powerful instructional elements and interactions. That's the concept behind the book.

Joe: I think that's interesting you bring this up this early in the conversation because designing a game; it's different than your typical software package. I have a lot of software people, in Lean IT, and Kanban, people that listen to the podcast, but what are

some of the differences? The nuances of let's say, gaming something up versus developing typical software.

Karl: One of the most interesting things I think about games is that they start with a context, which is typically a story. A lot of times when you are creating software, you're not starting with a context. You're just starting with specifications. Use cases try to get at this, but they don't always get programmed from there.

I would tell software designers "Imagine the story of an order-entry clerk, working with a client to try to get just the right product configured. How does that happen? What kind of obstacles would you encounter? What kind of things would you do to streamline that process?

What kind of things would you give feedback to the client to know that the configuration is coming along the way that they want it to?" Maybe it would be visual feedback, maybe it would be a text message to them. Maybe it would be sending them the schematics as their talking in real time.

The first thing I say to designers of software is, "Think of the context in which this is going to be used and how does that context work with what is happening to both the person using the software, and the person on the receiving end? Second is, look at the aesthetics or the interfaces of games."

One of the things in software interface has been a mantra, for as long as I can remember, is a consistent interface. We want everybody to have a consistent interface from screen to screen, have consistent information. Everybody needs the same.

If you look at a game like World of Warcraft, my interface is not the same as somebody else's. First of all, I'm in a completely different role. So, I see different things related to my role.

Then, I have different health, different magic, and different items in my inventory. So, my interface looks a little bit different from other people's interfaces, sometimes radically different.

Think about how does the interface of the software that you are developing support the role of the person interacting. What kind of information would they want? What kind of information would they need?

Then, get to the feedback element or the feedback loop. One of the things that are great about a game is that you always, always know where you are and what you are doing. I know that I have three lives left, or I know that I have two squares until I pass go and collect $200. I always know where I am in the game space, sometimes in a software space.

I have worked with ERP offer companies for years. I don't always know where I am. Is the order half-way done? Is it a third of the way done? Is this product configured? Is the shop order almost done?

Think about giving feedback to the person using the system in visual and dynamic ways that are esthetically pleasing.

One of the things I think that people overlook, especially in software, is the esthetics. They say its function does what it needs to do, but people, to be engaged, to be interested, to want to put information into a system need to be drawn to it, even if it's their everyday job.

I work with people every day that say; the guys on the shop floor keep putting in the wrong numbers on the computer screen. I'll go and look at the computer screen, and it's the most convoluted, heavily stacked computer screen I've ever seen.

I'm like; I would get lost putting the information in here. We need to clean this up. We need to make this esthetically more pleasing.

We need to make this simpler. We need to understand the process and the flow and what happens.

All of those elements that come from games can really influence the design of the software. I always tell my students, if software designers built software correctly, we'd all be out of a job because it'd be so easy to use. So, think ease of use.

A game, for example, we don't need a huge tutorial. We do the first level, which is really easy. We understand that. Then, we can move to the next level, and it builds on that.

So, for example, one of the elements from games that can go into the software is a progressive display of interactivity.

So, for example, when you first use a piece of software, say Microsoft Word, maybe you see bolding, maybe you see underlining, but you don't see all the other toolbars because it's too confusing.

Then, once you get comfortable at a certain level, maybe it's so many hours, maybe it's so many tasks, and then things should be revealed to you over time to help you be more efficient and more effective.

But often with software, somebody needed this, and somebody needed that, and we throw it all in there, and we don't progressive display the interface. It confuses people, and it turns them off to the software.

Those are just a few ideas from gamification that we can add to software development and design.

Joe Dager: I think they were great ideas, because I see so many times where someone will take software, and they'll put it out there, and they'll give them all the tutorials and the YouTube videos to watch and expect them to apply it. If they just only left them to do what they are capable of doing for a while until they

became proficient, and then moved on, just as a game, they would create that value in the use of the product, which we all know is...

Repeat customers come from the use of the product. It doesn't come from the new feature and benefits because they've been using the product.

Karl: Right, exactly. I actually think, in some cases, you should do it where after a ceremony; you unlock pieces of the software. "You've done something well in order entry; you did the credits check correctly five times in a row, and you understand this, now you can do the rapid checking." It will make them more efficient in the long run, and make them more engaged in the product. Yeah, I absolutely agree with that.

Joe: One of the things you talked about in the book is how games can be used to solve problems. I understand a little of gaming from the training purposes, but how could it be used for problem-solving?

Karl: Yeah, that's a really good question. There are a couple of really interesting examples, and I think that they can be applied to a lot of different things. One is the United States Military actually created a multiplayer game to address the issue of Somali pirates.

They said, "Look, we have limited resources in terms of trying to solve this Somali pirate issue. There are so many people in the military, and they have lots of different tasks and jobs. Why don't we crowdsource this? Why don't we let people become pirates? Why don't we let other people become defenders of merchant ships, and let's see the interplay and the ideas that they come up with?"

They actually put these people in a game environment, but with a real-life problem, and they're looking at real-life reactions to the

problem to see how they would solve that problem, to see how they would work through that problem. There are certain parameters, so, for example, you can't set off a nuclear bomb because that's an inappropriate response.

They give them the same tools that the pirates would have, the same tools that the merchants would have, and say, "OK, let's try to solve this problem." I look at it from a manufacturing idea. Think of a design problem. How do you design for manufacture ability?

Well, you can get a couple ideas from the engineers and maybe some ideas from the folks on the shop floor, but imagine putting them all together, playing a role, and seeing who would come up with the best idea, and who could steal one idea from another, and then morph that idea.

Another way that games have been used for problem-solving, there's a game called Foldit, and that has to do with folding protein. Humans can find and fold proteins more efficiently than computers so far, but it's really kind of a tedious task. You've got to figure out where the things go, and this one can't be attached to this one, and this one can only be attached in certain arrays, and, etc., and what they've actually done is they've gamified it.

They've added points, and they've added incentives, and leader boards, and so people that fold these proteins...

Now, it occurs in the context of a really broad social story, which is; you are actually moving human knowledge forward, which is in itself a very intrinsically motivating activity.

So many people have actually folded proteins in a way that they've come up with vaccines for the HIV virus. These people working on these are working on real problems, solving them, being incentivized through game type elements.

The other interesting thing, I think, about problem solving with games is, back in the 1970s, I think it was, there was a board game put out by BP called Oil Baron, or Oil Tycoon, or something. One of the cards in the game was massive oil rig explosion. Oil leaks into the gulf. Lose a million dollars or something like that. What games allow you to do, from a problem-solving perspective...

Obviously, the executives never played that game, because they said, oh, we never thought this would happen, but the idea is that this allows you to think outside of the box. When you're playing in a game environment, you can think through scenarios that you'd think might be unthinkable.

Another example is 9/11, flying a plane into a building. Rogue war games had actually come up with that kind of scenario, but the higher brass said, oh, that would never happen. Many people came out after 9/11 thinking, oh, flying a plane into a building was unthinkable until today. It wasn't unthinkable, other people had thought about it. In a game environment, you can think through things that are taboo, or you really shouldn't think through, or, which are kind of crazy but actually could happen, and that helps you solve real-world problems.

I'm dealing with a health care company, and they're saying, look. The health care industry is changing. We're going to change from treating people who get sick to trying to prevent people from getting sick.

That's a whole different paradigm from the stakeholders, to the pharmaceutical companies, etc., and they want to develop a game to allow people to think differently and solve, how do we prevent illnesses versus how do we treat illness?

Solve problems related to that, so games really give you the space to think freely, and when we put rules, and objectives, and certain challenges in front of people in the game context, we can

really let their mind run free, and then we can harvest those ideas and implement them into our existing systems.

Joe: I want to jump back a little.

Karl: Oh, sure.

Joe: Do all instructional games need to be entertaining?

Karl: Actually, the research shows, no; they don't. In fact, research shows that when people rank a game as not being "fun," but look at the learning that occurred, the people still are learning from games that they think are not "fun."

Really, those are kind of game simulations. For example, if you think about it yourself, sometimes you'd be in a situation that is very challenging, that taxes what you know, but at the end you're successful. But at the time, it might have not had been that much fun. The experience might not have been that enjoyable.

One of the mistakes I think a lot of people make when they think of games for instruction; the very first thing they think of is it has to be fun.

But to me, if you think about a game, all a game is a high level of interactivity. So the first thing I think you need to think about if you're thinking about game education is interactivity. What interactivity do I want the learner to do? Sometimes if you look at people play a game like I've seen them play Kanban games or Just-in-time games, people are sweating. Some people are getting upset.

They're getting mad because their inventory's piling up. They start to get frustrated, and then when you introduce the concepts of 'Don't build up extra inventory. Wait until you get the pool signal' etc., and they see how these concepts work, and they get through that frustration, that actually sets of a light bulb, and

they say, "Ah, I get it now. That's what the Kanban process is all about."

I think games typically involve emotion, but I think frustration is an emotion that can be used. Now you don't want somebody to get so frustrated that they flip the game board up and run out of the room, but a bit of frustration actually helps us codify the knowledge and the learning.

Joe: I've tossed a Monopoly board or two up a couple of times in my earlier life; I can remember!

Karl: I've taken down a number of Stratego pieces in anger myself.

Joe: The other thing I've noticed about games, most games are played repetitively, and we seldom do that with many simulations. Is that a mistake?

Karl: That is a mistake. One of the most well documented, instructional tools is repetition and spaced practice, which means you do a little bit now, you take a break, you do a little bit later, you take a break, you do a little bit later.

That's the best way that you can learn anything. And think about it, the opposite of that is college, right? So we all crammed for exams in college. We got through that exam and two days later we're, like 'I have no idea what that subject is about.

I got an A on the test, but I don't remember any of it'. But if you learn a little over time, you actually retain the knowledge more effectively, you have deeper understanding, and you're able to apply it more effectively.

I think all training is like this; we understand that to learn a language, and we practice and we do all that stuff, and to learn math problems it takes years, and we do our multiplication.

But to do something complex like customer service or statistical process control, we send people to one class, we say that's it, you know it, good luck! And we send them off.

No, we need to come back to do it over again, so playing simulations over again can be very helpful and playing them from the different perspective.

So, if you're playing maybe a game one time as the operations manager, play it the next time as the sales manager and see if you make different decisions. Play it once as the customer and see if you make different decisions.

So, one of the things I really think is important is to use the simulation over and over again. Research shows that the best use of the simulation is to do some setup, talk about some of the concepts that are involved in the simulation. Let people go through this simulation and then do a debriefing of the simulations, so they understand what they just went through, what the ramifications were, and to solidify the learning process.

Learning comes through a lot of times reflection. When you are in the middle of a simulation, you're getting frustrated, or you're having fun, or you're confused or whatever the emotion might be. You're not being very reflective about your learning. A lot of it is not being openly cognitively processed. Then when you are done, when the events over...

Sometimes you just want to get out of there. You want to leave. It's done. But when the events are over, looking back on it is the best opportunity for learning. So, a lot of times, we should play a game that somebody gets certain learning out of that game or simulation. A little while later, have them play again and see if they get new learning out of the game or simulation.

Most of the times, they will discover new things by playing it differently or by playing even with different people than they did

the first time they played it. So, I think repetition is a very valuable tool in terms of helping to solidify the learning through games and simulations, and through gamification.

Joe: Now, many of us are familiar with the concept of game mastery and the motivation that he talks about what motivates, what doesn't? Is this processes the same thought processes used in gaming?

Karl: Some of them are, and some of them aren't. A lot of people that do not like gamification hold up Dan Pink as the anti-gamification person, I'm not sure he totally assumes that role but what happens is people say, "Oh, one of the things that games have are points."

People seem to like to get a lot of points. So let's take this process and let's just add points to it. Then people would be engaged with the points. That's extrinsic motivation. That's motivating you outside of your internal drive.

Reward points for airlines are gamification at its, most basic level. Another example that's used all the time is Nike Plus. So, Nike Plus is this sensor you put in your shoe. You run; you hook it back to your computer, and it shows you how far you ran, how fast you ran. You can move up from different levels.

You can set milestones for yourself. It's held up as a pure gamification example using points and reward structures for gamifying health or exercise.

I did that; I was really excited about it. After about a month, though, I got bored with it. I'm like, you know, I don't really care that I'm moving up to the next level. I don't really care about how many miles I've run. Whatever, I'm still running; I'm just not as motivated to track it.

The extrinsic motivation of seeing my points, and levels, and rewards just didn't do it for me, but I found another application called Zombies, Run!

Zombies, Run! Does the same kind of thing, except it puts me into the context of a story? I am runner number five. I am in a post-apocalyptic world that is inhabited by zombies, because, apparently, post-apocalyptic worlds always have zombies, and when I go out for a run, I'm going out not on a run; I'm going on a mission.

I'm going out to collect medical supplies, or ammunition, or something like that. I'm much more motivated to do that because it's in the context of what I'm doing.

The elements of games that will intrinsically or internally motivate us, the reason why people play Halo, or World of Warcraft, or those types of games over and over again is not because of the points that they're getting, it's because they have a sense of mastery.

They're mastering content, or they're mastering a world, or they're mastering other players. They get constant and continual feedback about what they're doing right or what they're doing wrong.

They can make changes and view the feedback and see what happens, so they're getting immediate corrective feedback as they're going along. They're also getting a sense of a challenge, something that they have to overcome, something that they need to do.

All of those things are drivers that Dan Pink talks about in his book, and those are the things I believe that make games engaging, and why people play games.

The other part of gamification where we're tracking, how many times you click on something and giving you points for it, or giving you a badge for logging in, or something like that, is merely taking the end results of games, the peripheral, interesting things about games, and making those the center of gamification, and that doesn't work.

If we take what really drives people intrinsically to do a good job... People like games because they're in total control. In real life, rarely are we in total control. People like to be in control.

That's an element of a game that people like. People like to learn things and overcome challenges. That's an element of games that people like. People like to be able to figure things out. That's an element of puzzle games that people like.

All of those elements, I think, are the elements of games that we should use for gamification. We can still have rewards, and points, and those kinds of things, but those aren't the drivers.

As Dan Pink points out, those are not the drivers that make people do things. What make people do the things are the other elements, the sense of overcoming a challenge, of mastery, of autonomy.

Those are the elements; I think, that really make software products, or learning environments, interesting and engaging.

Joe: There are parts of games that are heavily structured, though?

Karl: Absolutely. I think, like anything, there has to be a balance. Especially, if you take a novice learner, for example. Novice learners tend not to know what they're supposed to learn, or where they're supposed to go, or what they're supposed to do, so they need a lot of controls.

That's the other interesting thing about games. You can create a game where the first few levels have lots of controls, and then as the player gets better, you can give them less control.

Novice learners need lots of controls. They need the system to control them. As you become more intermediate, or an expert, you have a broader range of knowledge, so you can start to do things.

It goes back to what we talked about before, which is, computer systems should have lots of control in the beginning, not let the learner, or the user does anything that they want. When they become better or more comfortable, then you can expand the universe of what they're able to do.

A lot of times in the first level of a game, or the first few rounds of a game, it's very controlled. The learner can't go off in crazy directions. Then, as the game progresses, you can let the learner go off in different directions, a little more open, a little more free, than how you would do it otherwise.

Joe: From a Lean standpoint, a certain amount of standard work is good, right?

Karl: Right. Exactly.

Joe: One of the other things that jump out at me in the conversation are that you talk about uncertainty is a response that we want, that's a challenge to someone. Should we try to create more uncertainty in the workplace?

Karl: I think what we want to try to do is, we want to prepare people for that uncertainty.

Here's how we do it nowadays: To prepare people for uncertainty, we come up with every possible scenario that we think could ever happen, and we create a SOP. We have standard operating procedures for everything you can possibly think of, and then if

somebody does something that we didn't like or didn't approve of, and then we create a new SOP.

We're never going to create a SOP for everything. That's an impossible task. What we really need to do is prepare people to deal with uncertainty, and prepare them to work through uncertainty, and be comfortable with it, to make decisions in the face of uncertainty, to be able to think back to what they do know. Then act upon that element in the event of an uncertain situation.

I really think we shouldn't add more uncertainty into the workplace or the workflow, but we should certainly create pre-learning so that people are prepared for uncertainty. A game is a good way to help people think about uncertainty, and work through uncertainty in a very safe environment.

What a game does allow you to make mistakes without career limiting results. So, I can play a game and say, "Well, what if the oil did spill? What would be the result?" Whereas, I can never spill the oil in real life just to see what happens.

So, what a game does is prepare us to think divergently, which is really important when we are dealing with problems and uncertainty in a fast-paced environment where we're not always going to have all the answers. We're not always going to have all of the information. It's going to be a fluid situation, but we have got to do something. We can't just let it happen to us. We need to be proactive. I think games can teach us to be proactive.

Joe: Am I way off base thinking that I can program what I know about an organization and simulate a sales call or an opportunity and see what type of response may come back?

Karl: I don't think off base at all. Many simulations are based on what happens in a corporation. Anybody who does that is going

to boil down the real situation. One of the things I talk about in the book is games are abstractions of reality.

You have a model for your sales process; you create an abstract model of that sales process; you can create a game. You can give somebody's points for getting past the first gatekeeper. You can motivate them to get past the second gatekeeper. You can motivate them on how long it takes them to do a sale. You can add that into the game.

You can definitely take elements of an organization and condense them down into a game and teach people some valuable lessons about how the organization should be run, what's happening within the organization, and very importantly, trade-offs.

Great story -- a while back, there was this paper company. There was a sales contest. The sales contest was who can sell the most paper. One salesperson came back, and they had sold 14 truckloads of paper, which is seven times more than they had ever sold before.

What happened was the company almost went bankrupt because it's a big sale; it's a huge discount, number one. Number two, they stopped running all the smaller highly profitable jobs so that they could get these seven truckloads created. It caused all kinds of uproar and havoc.

If people in that company had understood the trade-offs between high profit and smaller run items versus the lower profit larger items, the incentive for the sales team versus the incentive for the manufacturing team, if they understand that in a game type environment where that could happen with no loss of income, no overtime, no angry customer in real life, just in the game environment, people could take those lessons and apply them to the real world.

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Studies have shown that things that we learn from games are applied in the real world. We can take learning from a game situation and apply it to the actual physical real world. Having done that, companies would get into fewer problems. Playing these games where you have to make decisions and trade-offs and where you can't put all of your resources in one basket are really great ways, especially for upper management to think about the parameters under which they have to run the company and what influences things like profitability, customer satisfaction, and those types of things.

Joe: I always think of the George Carlin thing, and I forget how the joke went and everything, but some of us have to get up in the morning and put on our pants and go to work.

Can gaming really fit into the corporate world? Do we have time to play these games? Do we have time to construct them? Really, there have got to be some tradeoffs. It sounds great in this virtual world, so to say, but can we do it?

Karl: That's a really good question. I always come back with; can we afford not to do it? Here's why. So much of our training is simply done, so we can check it off.

Did you do the compliance training? Yeah. Do you understand it? No, not really. But, we're covered from a liability standpoint because our person went through this training, and they've done it.

I worked with a company one time. Their compliance training was a module, and it lasted 13 minutes. So, once a year, they got training for 13 minutes. In one week of watching commercials, they saw more commercials in a week than they did in an entire year of training.

One of the issues is organizations feel like, well; we don't need to train, or we'll just do the minimum amount of training, and

people will understand it. What's happening in the world is learning at a certain level has become a commodity.

People know how to, not everybody does it; people could know how to apply Lean across any organization because the knowledge is out that conceptual knowledge, that procedural knowledge.

What's missing now is the problem-solving knowledge, the trade-off knowledge, the ability to deal with uncertainty, the ability to use fewer resources to get more advantage.

If we throw people into work all the time, and we don't give them the change to think divergently, we don't train them to look at certain things or certain variables. We don't give them that chance in a safe environment like a game or a training class. Then, when they are confronted with real issues, they are going to have problems.

One of the things that I always say look at every life and death training situation, the military, and flight simulators. I spent some time in a nuclear plant. They have an exact replica of the control room for their training, down to the point where they pipe in the exact same air compressor sounds into that room as in the actual nuclear control room.

Every life and death situation, we provide high-fidelity simulations and games because we know, when push comes to shove, that's the best way for someone to learn and train.

Yet, for everything else, we assume that a bulleted list, a SOP, somebody lecturing to us is going to give us the knowledge and information that we need to do our job the most effectively as possible. I postulate no, that can't happen. We know what makes really good training. We know in life and death situations what the training should look like.

We choose to ignore that for resources, or for whatever reason, for everything else, and I think games and gamification can allow some of that realism, some of that fidelity, into our other training, our non-life and death training. Now, I'm not an advocate that, "Oh; work has to be a game, and every time we go to training; it has to be fun, and we have to have points." I'm not saying that at all.

I'm saying take a look at some of our strategic things, like thinking about Lean, for example, and how do you change a mindset, and adding game elements to that, so people understand the heavy stuff, and can get the critical stuff, and make that make sense. I'm not an advocate, for example...

If I see one more Jeopardy game added to a compliance training course, I may run off screaming. Really, what we need to do is, that should be a scenario, and the person should be confronted with a gray area, and then they need to figure out what to do in terms of compliance. We need to apply the right games in the right situations.

If we just apply games to everything, then it is frivolous, and it is a waste of time, but if we think of critical, strategic things we need to do, I think adding some game elements to that makes perfect sense.

Joe: Can gamers fit into the corporate world?

Karl: Wow, that's a good question. Can gamers fit into the corporate world? There're a couple of answers: One is, they kind of have to, or else they're not going to work in the corporate world, but two is, I'd like to see the corporate world more influenced by gamers. The other thing to think about, games are talked about a lot in the corporate world.

"We've got to get our game face on for this presentation," or, "The client's playing a game with us," or, "We're going to try the

game the system," "We're not at the top of our game." I think the game is in corporate a lot. I think we don't like to admit it. We still like to think "game" is a four-letter word, so we're not going to say four-letter words, but I think there is room in corporations for gamers, and I think gamers are going to add...

I'm a Gen X, and I deal with a lot of baby boomers and et cetera, and I think we've put up with poor software; we've put up with poor interfaces; we've put up with poor instruction, because we didn't know any better. The gamers coming along know great interfaces, they know great interactivity; they know what makes how they learn, so I think they're going to push game elements into the corporation more than we've ever had before.

I actually think that's going to be a really good thing, and especially in software design. It's going to take our traditional ERP software, which is as dry as dry can be, which is not very intuitive, which doesn't give us real-time information that we can act upon easily, and it's going to make all of that possible.

Is there room for gamers? I think so. I think I'd like to see, personally; gamers take over a little bit more and make corporations a little bit more engaging, interactive, and exciting.

Joe: You have to play games to understand gamification; that's what you said.

Karl: Yes.

Joe: What's your favorite?

Karl: Let me give you a number of different games. One of the games that I think is fascinating and really struck my imagination early on was a game called "You Don't Know Jack" by a company called Jellyvision.

I remember at the university, when I first got a job there, when we discovered the game "You Don't Know Jack," we were so

excited about it, because it was basically a blank screen, and it was a trivia game.

It was really weird juxtapositions, like, "The Brady Bunch" and birds, and they'd ask you a question about, "Which is the favorite bird of 'The Brady Bunch'?" I mean really weird kind of questions. Now they just released a Facebook version of it.

The fascinating thing about that game was that the announcer on the game was speaking to me. He spoke to you as if you were there.

For example, you were supposed to hit a key to enter an answer. If you didn't hit the key right away, the MC would say, "Carl, hey, what are you waiting for? Go ahead and hit a key. Hurry up. We don't have all day."

It was very aware of you as interacting with that game, and it still does that. "You Don't Know Jack" is a great game to play.

One of the games I like also is "Civilization." Sid Meier's "Civilization" is just so fascinating in terms of balancing resources. There are several different ways you can win the game. You can win it through culture. You can win it through the military. You can win it through financial might. I like the idea that it gives me different ways to do that in Civilization.

I do occasionally play some first-person shooters. "Call of Duty" is a game that I play, I have to admit. I do, from time to time, like shooting my opponents. I'm a big fan of James Bond, so I play a number of James Bond games on the PlayStation 3.

The Wii's a lot of fun; we do some Wii games as a family. My wife is a --I know this is an older game now, but she's like a Rock Band rock star. She just plays the heck out of those guitars.

I'll play Angry Birds. I'll play Monkey Gems, that's currently a game I like playing. Temple Run is a game on the iPhone that I like playing. World of Warcraft...

So I try to play a variety of different types of games, and work very hard not to get pulled into one game, because part of, I think, what I need to do in my role is look at many different games, and play many different types of games.

I like board games. I like Stratego is one of my favorite board games. Risk is one of my favorite board games. Card games, I think as we play games, they can inform us at so many different levels, and we need to play different types of games.

Both games that are a video-game based as well as --Spore is a great game -- as well as not video-game based, so we can kind of understand them from different levels not just from one perspective.

Joe: What's coming up for you and give me your contact information?

Karl: I did a blog book tour, which was really exciting. I stopped at 25 different blogs and each of those blogs, left a little review or a message or a story about gamification.

So you can see that my blog is called Kapp Notes, K-A-P-P Notes, the URL is out of control, so just Google "Kapp Notes" and you'll find my blog, and it has information about the blog book tour.

I have an article coming out in the June, this issue of the Training and Development magazine, ASCD's training, and development magazine, called "Games, Gamification, and the Quest for Interactive Learning."

That was a fun article to write; where I talk about what's the difference between serious games and gamification and then how do we use those elements in our training and instruction.

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On July 24, I am going to be working with ASTD on their seminar, webinar series, so there will be a free webinar available at 2:00 pm on July 24. If you go to ASTD's website, ASTD.org, you can see that information.

I have a Facebook page for the book, and every stop on the blog book tour is on that Facebook page. Facebook, just search on gamification, and you'll see my Facebook page. Stop by leave a comment. That'd be great.

I'll be at a number of conferences in August. Oh, my Twitter, @kKapp is my Twitter account so you can follow me on Twitter and follow my Tweets, which will link back to my blog, which will link to the Facebook page, which will link to some other things that I am doing as well.

I am currently involved with a project funded by the National Science Foundation where we are creating a game to teach middle school kids engineering concepts. Really fun game, it's a game where the students go through a bunch of knowledge and skill-building activities.

At the end, there is a group activity. This is online as well as face-to-face that they have to do. We are using some really interesting tools and techniques to do that. You are a survival master, and you have to try to survive in the Alaskan wilderness by learning about thermal dynamics, about heat flow, and the conductivity of materials.

That has been a really fascinating project that I have worked on.

If you are interested in gamification, what I have really tried to do in the book was just try to lay out at different levels what it is, what it is used for, lots of examples, I think, just read about it, understand what gamification is, and then apply it to what you are doing.

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When you immerse yourself in the concept and topic, then you'll have a really good-and play some games-then you will have a really good understanding of how to apply it in a work setting.

Joe: I think that's excellent advice. I would like to thank you very much. I thoroughly enjoyed it. This pod cast will be available on the Business 911 iTunes store, and also Business 911 blogsite. So thanks again, Karl.

Karl: Thanks, Joe.

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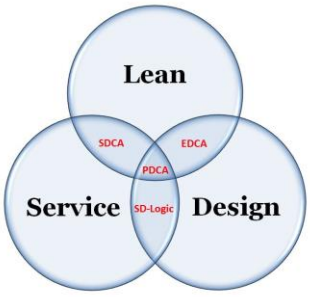

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Joe Dager is president of Business901, a firm specializing in bringing the continuous improvement process to the sales and marketing arena. He takes his process thinking of over thirty years in marketing within a wide variety of industries and applies it through Lean Marketing and Lean Service Design.

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