SMU Science and Technology Law Review

Volume 15 | Number 2

Article 5

January 2012

Social Gaming Legal Issues' Impact on Creative, Development, and Business Success

Richard Hilleman Joseph Olin Tom Mustaine Carolyn Hoecker Luedtke

Recommended Citation

Richard Hilleman et al., Social Gaming Legal Issues' Impact on Creative, Development, and Business Success, 15 SMU Sci. & TECH. L. Rev. 157 (2012)

This Article is brought to you for free and open access by the Law Journals at SMU Scholar. It has been accepted for inclusion in SMU Science and Technology Law Review by an authorized administrator of SMU Scholar. For more information, please visit http://digitalrepository.smu.edu.

Social Gaming Legal Issues' Impact on Creative, Development, and Business Success

Moderator: Richard Hilleman Panelists: Joseph Olin Tom Mustaine Carolyn Hoecker Luedtke

Mr. Hilleman: Social gaming has had a great impact on the overall landscape of gaming. Roughly 25 million customers made up the majority of the consol and PC business in 1990. Today, over 1.6 billion people play either mobile, social, PC, or consol games. This increase in customers, and the changing expectations of the growing customer base, has led to changes in the social gaming world that have several legal implications that we will discuss today.

Today we have Tom Mustaine, one of the leading designers in the firstperson shooter space. He has also been an innovator in figuring out how to use first-person shooters with other gaming forms. We also have Joseph Olin, past president of the Academy of Interactive Arts and Sciences. Currently, he is working with Chris Swain, from the University of Southern California, to bring university-seeded products to market. Finally, we have Carolyn Luedtke, an attorney representing major players in the gaming industry.

To the panel: What are some of the ways you have seen social gaming change and what are the new areas of emphasis?

Mr. Mustaine: I just recently transitioned over to the social gaming space. This last year I worked extensively with Facebook and Mobile IOS to try to bridge the gap between the two. There is an opportunity there that I find interesting. People who play games on their phones or Facebook spend just as much time as the hardcore gamers who play on Play Station 3 or Xbox. These people are very socially connected and, with these games, their privacy is sometimes an issue. They accept certain conditions or games onto their Facebook pages that could put their privacy at risk. This allows developers to do interesting things, but it puts the gamers at risk when they accept and allow different software onto their networks.

Mr. Olin: The market is huge. What was once a small industry has grown immensely and with growth comes several different things to worry about. Companies can no longer have three to five people working for them and hope that a game will become popular. Now, you have to treat every game as a business product and focus more on the business-side of gaming to be successful. Also, as soon as a gaming company starts, they need to immediately get a lawyer. This area of law is developing, and there are several legal issues I ran into this past 8 months while working with two start-up companies.

Ms. Luedtke: I have prepared a power point to discuss some of the issues gaming companies need to be aware of. In the last two years, litigation among social gaming companies has skyrocketed. Many of the social gaming clients I represent do not have in-house legal departments and, if they do, they are usually focused on corporate issues, not litigation issues. No doubt, this industry has become increasingly litigious. For example, Zynga has sued several of my clients. These cases arise quickly and often unexpectedly. Companies suing other companies are looking to shut down a game or an entire company. Often smaller companies without an in-house legal department or an infrastructure like Microsoft or Apple find these situations difficult and do not know what to do.

One of my clients I represented this past year was Vostu, a large South American gaming company.¹ The way Vostu found out Zynga was suing it was through an article in TechCrunch entitled "WAR! Zynga Sues the Hell Out Of Brazilian Clone Vostu."² Imagine you are a gaming start-up with no knowledge of the law and all your company is trying to do is create popular games. Suddenly, you look on the internet to discover you have been sued by another company and that the other company has obtained an injunction to shut you down within forty-eight hours. Now you only have two days to find legal counsel and try to save your company. This is a common occurrence in the gaming world right now.

Basically, small tech and gaming companies need to invest in a lawyer as soon as they can afford one. They need the advice. Also, gaming companies need to be aware of what other companies are doing and make sure they are not being sued, as well as take protective measures while they can.

Another different thing about social gaming and the social world right now, is that the world is very mobile. People often change jobs and move from company to company. Much of this mobility implicates intellectual property issues and trades secret issues, which are things that have been coming up a lot in the social gaming space.

This past year I had Playdom as a client. Eleven employees left Zynga to work for Playdom and allegedly took Zynga's ideas and documents with them.³ It is common for employees to keep information on flash drives or in their clouds on their computers. They do not think about these documents

^{1.} Zynga, Inc. v. Vostu USA, Inc., No. 11–CV–02959–EJD, 2011 WL 3516164 (N.D. Cal. Aug. 11, 2011).

^{2.} Michael Arrington, TechCrunch "WAR! Zynga Sues the Hell Out of Brazilian Clone Vostu" http://techcrunch.com/2011/06/16/war-zynga-sues-the-hell-out-of-brazilian-clone-vostu/ (June 16, 2011).

^{3.} Complaint at 9. Zynga GME Network, Inc. v. Playdom, Inc., No. 109CV151723, 2009 WL 3026165 (Cal. Super. Ct. Sept. 9, 2009).

when they leave one job for another, posing possible risks to the next company for which they go and work. By consulting a lawyer and speaking with the people a social gaming company hires, companies can prevent this from happening and make sure that new employees do not accidentally bring trade secret or intellectual property information from their former employers. In my case, Zynga obtained an injunction against Playdom and in two days, Playdom had to take a forensic image of every employee's computer in their company. The companies ultimately litigated over whether avatar customization is a trade secret.

The social gaming industry is a deal-heavy industry, with acquisitions are happening almost every day in the social gaming industry. Due to the large amount of deals in the social gaming world, companies need to be careful with what they say and talk about in meetings regarding new deals. For example, right now Zynga is in litigation with SocialApps.⁴ SocialApps invented the game *My Farm.*⁵ Leading the suit is Thomas Girardi, a plaintiff's lawyer in California, who claims all of *Farmville's* code was stolen from SocialApps.⁶ SocialApps shared some of their code from *My Farm* in order to get Zynga to purchase them and now SocialApps is claiming Zynga stole that code and used it in their game *Farmville.*⁷

So before companies have deal meetings, they need to decide whether or not they will share certain information with the company looking to acquire them. A non-disclosure agreement should be in place. Also, if a company is a larger company such as Zynga, they need to decide how much they want to learn in order to avoid law suits like the one with SocialApps.

Mr. Mustaine: These kinds of lawsuits are new and they are something for which we have had to implement training. We now have to train our employees on what they can and cannot do. Texas rules and lawsuits do not appear as strict as the California rules, but as more gaming business occurs in Texas, I can see this becoming a larger problem here. In addition, Texas companies have started hiring California employees and have already had to start dealing with California employment agreements. Especially with acquisitions, we have to tell all our employees what they are not able to talk about.

Ms. Luedtke: A final issue I would like to speak about is copyrights. An issue with copyrights and social gaming is how much is original out in the social gaming space.⁸ Something important is the *Scenes à Faire* Doc-

6. SocialApps, 2012 WL 381216 at *2.

7. Id., Farmville, www.farmville.com (last visited Apr. 1, 2012).

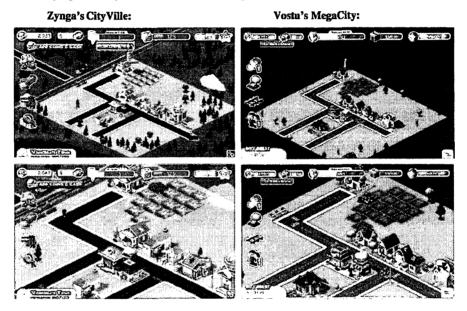
^{4.} Socialapps, LLC v. Zynga, Inc., No. 4:11-CV-04910 YGR, 2012 WL 381216 (N.D. Cal. Feb. 12, 2012).

^{5.} My Farm, www.my-farm.org (last visited Apr. 1, 2012).

^{8.} Carolyn Hoecker Luedtke, Social Gaming Legal Issues' Impact on Creative, Development, and Business Success, International Summit on the Law and Business of Video Games, 2012.

trine.⁹ For example, a farm game will have to have a barn and animals regardless of who creates it, and there are only so many ways to depict a barn or a cow. There are some things that are simply inherent in a particular type of game.

In my Vostu case from earlier this year, an issue was the similarity between Zynga's *City Ville* game look and Vostu's *Mega City* game look.¹⁰ Zynga also sued Vostu for copyright infringement for farming games, restaurant management games, pet care games, and poker games.¹¹ Zynga filled its complaint with pictures comparing the two companies' games. Below on the left is Zynga's *City Ville* and on the right is Vostu's *Mega City*.



In my response to this complaint, I gave examples of other city games, like *Sim City*, to show how similar they all looked to each other.¹² If someone is going to have a restaurant for example, of course there will be waiters, tables, and food, regardless of which company's restaurant game a person chooses to play. This is a popular issue right now in social gaming. The question is, "At what point should there be copyright infringement?" How much has one

- 10. Zynga, Inc. v. Vostu USA, Inc., 2011 WL 3516164 at *1 (Aug. 11, 2011), City Ville www.cityville.com (last visited Apr. 1, 2012), Mega City (Vostu 2011).
- 11. Vostu USA, Inc., 2011 WL 3516164 at *1.
- 12. Sim City, www.simcity.com (last visited April 1, 2011).

^{9.} The Scenes à Faire Doctrine is the idea that certain games will have to have similar scenes. For example, a castle game will have to have a castle, a farm game will have to have a barn and animals, and a poker game will have to have cards and chips. See Generally Rebecca Tushnet, Worth A Thousand Words: The Images of Copyright, 125 HARV. L. REV. 683, 731 (2012).

company copied another company's look and feel? Compare that with the fact that every poker game needs a dealer, most dealers will look alike, and a poker game will need cards and likely have a green table, regardless of whose game it is.

Mr. Hilleman: So there are a couple of interesting risks in the acquisitions world of social gaming. The most significant risks are those of the acquired and those of the acquirer. Starting with the risks of the acquired, suddenly a company must go through the process of integrating themselves into another company that may be incorporated in a different state or operates under some different rules. Oftentimes, a company will go from being a privately run, individually driven, social networking game to becoming part of a large public company. Suddenly, the company must be careful as to what it says. Consequently, companies have a hard time figuring out what they are allowed to say.

To the Panel: What are some of the other things you have seen?

Mr. Mustaine: Many of the issues that we have seen are related to the intellectual property and the so-called "secret sauce." We probably spent at least a month having rounds of discussions associated with the intellectual property and secret sauce because of the litigious nature of what is going on in California.

Mr. Hilleman: I am going to ask you some leading questions so that you may describe what some of that secret sauce is. Ms. Luedtke talked about the case of source code, which is one clear thing in my mind that is borderline humorous because most of the client's side source code of a social networking game is available if you know how to use the right-click on an the average browser. Much of the information is available on the client side, but the secret sauce is on the server side. The secret sauce is a collection of things: the data you collect, how you collect that data, how you integrate that data, how you analyze that data, and how you turn that into outcomes. The aforementioned things define the value of your social gaming space.

So how did you figure out how to express this information to your new suitor in a way that you did not give all of it away at the same time?

Mr. Mustaine: There were portions of this information that we were able to give away because we are in a unique situation in that we originated completely separate. We decided last year to jump into Facebook without really knowing much about working in that space at all. In fact, many of developers had done nothing but 3D shooting games and unity based games. Therefore, we got all of them in Flash and made a play for Facebook. We learned a lot very quickly about the issues affecting developers in this area. The learning curve was sharp, but our programmers generally move around frequently between different technologies, so the switch to Flash was not as big of a challenge as it might appear.

One of the big challenges is the technology. For example, if you go way back and look at Quake¹³ versus Unreal¹⁴, those two games were very similar. The game play was almost identical and very derivative.

Mr. Hilleman: In fact, there were people who built Unreal levels in Quake and Quake levels in Unreal. So it was possible to have moments where the screen shots are identical.

Mr. Mustaine: There were levels that were identical, but because there was not a lot of derivative work in that period, you knew that Epic had created their own technology and all their own art. You knew they had done everything from scratch. As an industry, you knew it. In contrast, when you all start from Flash, that is not the case because Flash is so common. Anyone can download Flash and start making games. There are three or four ways to build your back-in solutions that you can acquire off the shelf. As a start up, you would go right to Amazon, Softlayer, or something similar, then start working with an analytics company like Contagion. Alternatively, you could try and build your own. As a result, there is an enormous amount of technology parity with everyone using the same stuff.

For example, when we have a discussion with our team about the things they learned from working with a previous publisher, which is where it becomes an issue. At that point, we have to have discussions with people about the information in the secret sauce. It is more about what a programmer can sit down and write from scratch, than about what technology they are using off of the shelf. It presents an interesting kind of challenge. We have definitely been doing a lot of education with our team on how to capitalize on that.

Another issue is working with the new studio. They have their own set of rules. Thankfully, in our situation, there was not too much crossover. We only had a few areas where we knew we were going to have to be very careful. We also had many areas where we knew we were totally in the clear. We were very fortunate in that respect.

Mr. Olin: The whole problem with the technology is very acute. The enterprises I have dealt with over the last year are student-started entities. They came directly out of University of Southern California. They are two student projects based on student-developed algorithms under patent protection. University of Southern California ultimately took a small equity stake and put up some labor dollars with the condition that the students involved in the creation would be a part of the successful enterprise. The biggest challenge is that there is a difference between coming from the world of commercial driven or interactive entertainment, and coming from the world of student development. For example, one of our brilliant young engineers has won every Game Jam competition and knows how to create coding solutions

^{13.} Quake, http://www.quakelive.com/#!home (last visited April 7, 2012).

^{14.} Unreal Tournament, http://www.unrealtournament.com/us/main.html? (last visited April 7, 2012).

very quickly; however, that has nothing to do with building code that will be tested and used by tens of thousands of people concurrently. There is a real mental gap in getting a team to think about building for others as opposed to building for their own solutions. I walked in to this environment. In addition, there was the fact that the initial capital was about gone. So we also had to worry about how quickly we could raise money. Everyone wants to believe that the world of Facebook or social games is just lined with money, but it is about what you can show, and what is playable.

Part of my regimen was to bring in business practices and techniques that developers have always had in terms of establishing goals, accountability, and setting hard measurable benchmarks. This was so the team could figure out if they were making progress. At the same time, we tried to freeze the fast-following that occurs when programmers see something else in another game. To a certain extent, there is a different mindset in working on a core game. It must move forward. Then everyone wants to add more iterations based on the feature they just saw from someone else's game. You just want to say, "stop."

Ms. Luedtke: That situation creates such a risk. The lawyer gets so nervous because that means you are probably not involving a lawyer in all those iterations and you find yourself with someone declaring war on you.

Mr. Hilleman: An interesting point is that one of the transitions that is occurring in this area is figuring out what makes a great thick-client programmer. Traditionally, it has been a guy who is able to go completely out on an ledge, beyond what he knows how to do, and to figure out how to operate out there. He is taking enormous risks. When he gets those decisions wrong, all that happens is that the machine crashes and he has to press reboot—No harm done. The problem now is that when you take that same mentality to build a system that has to run twenty-four hours a day, seven days a week, 365 days a year, it is a nightmare. Those types of programmers are not the types who necessarily understand how to build systems with that kind of a notion. Generally, for the type who is used to walking out to the very edge of a ledge, security is not the priority. In these new systems, security is the priority. That is one of the key transitions that people are going through. There is a different set of responsibilities when software is a service, and not a product, that you have to meet the users' expectations.

I want to talk a little bit about what it is like to live as an acquirer. Ms. Luedtke described the case where somebody had to show their secret sauce in some way. It is a challenge in our business to go through that process because the people that you want to look at the code are probably the same people you would like to invent it. The minute you put someone in the position of doing that kind of evaluation, you have to figure out a way to insulate him from that type of activity in his future. Some of those insulations are 6.5 miles of air space, and some are a sheet of paper. The challenge is how to deal with that. Often, I am the best person I know in the streaming gaming space. Three years ago, I think I was one of two people in the world who had seen every single one of those technologies in person. That meant I was

probably the worst person in the world to start a streaming gaming company because I knew too much. That meant that our strategy for being in that space is to be a licensor. We created a type of intellectual basis that made it impossible for us to make our own gaming company.

The other strategy when dealing with this evaluation problem is to use an outside expert. We also employ that strategy. We employee people who are not employees of Electronic Arts to create an opinion in order to insulate us from direct contact with that technology. I do not think that option is used enough for a couple of reasons. One of them is that it costs money. A bigger problem is that you do not know who to get to do the evaluation for you. I am lucky that I can call up someone of Mr. Mustaine's abilities, a person who is a friend, but with whom I have no active business relationship. I can call and ask him to do an evaluation and ask if we should do it or not. He will tell me yes or no, and that is all I need to know. He will write a nice report that I can give to my boss. I get to the same place that I would have gotten if I had done the evaluation. It is very hard for everyone to have that kind of trust in somebody. These are decisions you need to make clearly.

I would like to make one point about the social gaming business. It is a business first, and a game second; they are built on Oracle databases. There are no other games built on an oracle database. At the end of the day, it is a business. So if you do not build around your business, around your commerce, around the way you are going to get paid, around the responsibilities that come with that payment, and around the privacy concerns, it does not matter how good your game is, you will not make money. This means you have to design around those things first. You have to design around all those business responsibilities. That is really the big change. When Mr. Mustaine started building games at the beginning of his career, he just built the game. He got around to the business later. Individuals would get six or seven months into a game development process before even considering how they were going to get paid. You cannot do that in social gaming. You will produce no value during that time.

Mr. Mustaine: I absolutely back that up. When we started moving into Facebook from the development standpoint, completely on our own, we said we were going to bootstrap ourselves and just do it. A large majority of this process was our team getting up to speed, but the issues you bring up are also good ones. We had not dealt with large scalability before. Back then, we were the little guy with a twenty-person studio. We were running on our own cash. The little guy in Dallas does not have access to all the resources and money that the larger players have. My business partner, Mark, and I took control of the business part at full speed ahead. We tried to tackle these issues early on. We hired a couple of engineers not tied to our old space, but which more into the social space and had those types of expertise.

Mr. Hilleman: I think that in the space of social gaming, if you are building the business first, you need a lawyer as part of your design team. So much of social gaming is about designing the line as close to the legal lines, and where other people are, as possible. The precision of that line is proba-

bly your margin. If one out of two hundred customers pays you, and you lose one of those customers, then that means only one out of four hundred customers pays you now. That is a catastrophic loss. You have to drive close to the line to make the business work. In order to drive close to the line, you must know where the line is. People in our business are not what I would call careful legal folks. If you are going to get into that business, you should have help—someone with a bright flashlight who knows where the line is.

Ms. Luedtke: Many of my social gaming clients are trying to hire lawyers, and they are actually having trouble. They are looking for lawyers who know the history of farming games, bubble drop games, and other games like those—lawyers who can sit down and be part of the green lighting process. Ideally, I set it up for clients to be part of the green lighting process when ideas are thrown out. After that, I set up a few gates along the way where they have to clear a lawyer to make sure they do not have a problem. It is better to solve that problem early instead of right before the game launches. Companies have difficulty in finding lawyers who know social gaming, who actually know the industry, and can be valuable partners on that game development team. Having someone who comes in and only knows copyright law is not that helpful. They need someone who really knows this industry, the games in the industry, and the players in the industry. I think there is a real opportunity there for people. There are many companies out there that are going to need those types of in-house lawyers who are really hard to find.

Mr. Hilleman: I would add one other thing. If you are a lawyer who wants to be in this space, figure out how to get a look at a Facebook contract, an IOS contract, and a Google contract, especially a marketplace-related one because that is pretty much at the core of everything they do. In every one of those cases, they define the legal landscape largely. When we figure out what we are doing, we lay those kinds of things on top of each other, and figure out what the open spaces are that we are free to operate in, or the business conditions upon which we can follow up; it is a key thing on which we spend a lot of time.

Next, I want to talk a little bit about IP. I think there are a couple of interesting things. I am actually old enough to have been around when the Broderbund case was litigated.¹⁵ I remember how defining that was for our business. That was the last lawsuit that our business heard about for twenty years. The video game business has been remarkably void of, what I would refer to as, intellectual property litigation. In general, patents have not mattered. There have been some, but there have only been a handful that has had an impact. Almost all of them were on the music side, which was an area full of other kinds of interesting copyright problems. One of the things we are having to adjust, within Electronic Arts as a company and the industry as a whole, is that social gaming really is a part of the telecommunications

^{15.} Broderbund Software, Inc. v. Unison World, Inc., 648 F.Supp. 1127 (N.D.Cal. 1986).

industry. The rules that apply in that area look a lot more like the telecommunication rules than like those in the gaming business. We are not litigious in the gaming industry, but unfortunately, the telecommunication business is very litigious. What we are discovering is that we have to learn new tricks. Sometimes we do feel like we are bringing a knife to a bazooka fight. It also means we are not used to looking where we are going in the same way.

That has brought up the issue of patents and the way patents have affected our space. It has dramatically changed and we increasingly have to figure out what patents are relevant. We consistently find ourselves in the prior art business. I think I spend 10% of my time getting asked if I remember a game that did this or that before 1985. It turns out we are doing that all the time. It is one of those things you have to be prepared to have the historical context, as Ms. Luedtke was describing, to give you the ability to go into courts in those circumstances and call ridiculous what is ridiculous. Those of us who lived in Silicon Valley always thought that Apple suing Microsoft about Windows and Apple OS was silly because they both stole it from Xerox anyway. So that conversation Ms. Luedtke was having about Playdom and Zynga is laughable because they stole it from me first.

From my perspective, these circumstances have really changed. In the past, with those kinds of things we would roll our eyes, go make a better version, and beat them in the marketplace. That is not the rule in telecom. Telecom believes in preserving their advantage—legally if they can—and so they try.

I would like to talk a little about how we survive working in the space of the telecoms. What are the kinds of preparatory processes that can help us in that space? Have you learned any?

Mr. Olin: To tread lightly.

Mr. Hilleman: Be afraid. Be very afraid.

Mr. Olin: It is absolutely about being afraid. It is like knowing that you are going into a jungle naked with no food and no water.

Mr. Hilleman: I call it a minefield.

Mr. Olin: It is a minefield, and I think that as much as you can learn and try to do reconnaissance, you can survive a little bit longer. But I feel that at any given instant you can be smacked and swatted away.

A parallel to that in the music-based space that I work in is that our game, *Cred.fm*, is all based around sharing music. It is not music that the company has any particular rights to, and it is not necessarily music that our customers own or have the rights to, although in some cases they have rights or licenses. So I find that we are always on the edge.

I am just waiting for an email or to see in TechCrunch¹⁶ that we are about to be sued. Because we are university related and backed, we have these filters of lawyers who are leading with their chins. They are doing the right thing, but they are not intellectual property attorneys. They are not

^{16.} TechCrunch, http://techcrunch.com.

social game attorneys. They are not music attorneys, which would be the most effective, because music attorneys know how the pirates are robbing from each other like the Commonwealth in the 16th and 17th Centuries.

So I mindfully go along and ask, "Who has thick walls right now?" The number one place for music on the Web is YouTube.¹⁷ The reason it has become the *de facto* choice for other service providers like *Cred.fm* is that YouTube has a really tall, thick curtain, called Google. They pay some minimal rights fees, much lower than anything Spotify is on the hook for right now as the popular music place. So, we hide behind them. However, at any given moment in time, Google can change, and YouTube will change their application-programming interface (API), our access points and what we will have to do to have access to that music.

Because *Cred.fm* is a sustainable business, I shop this around to acquirers and investors. They say, "Yeah, but what happens if they change tomorrow? If I don't have music, I don't have much of a game." So that is a fundamental issue of dealing with telecoms and the telecom mentality: "We want to own it all, and right now we're so busy growing that we can't figure out how to protect it all, so we're going to allow you to take our crumbs."

Mr. Hilleman: So strategy number one is to hide in the weeds, which means to be so small that they do not see you. This works well until you make some money. But it also means that if you are going to hide in the weeds, you are like any other creature—you had better be able to move, too. The most important characteristic that Mr. Olin is describing is, in spite of all the preparation their lawyers have done, it is probably their nimbleness in reacting, and their ability to invoke the relationships that they have, that are going to be key to their success. What are some of the other processes that you have seen work?

Ms. Luedtke: One strategy that I think is good to employ in the world of worrying about patents is to go on the offensive. Something we see many big companies do—but it works well for small companies too—is to get your own patents. Hire a patent prosecutor, get all your designers in a room to do an idea generation session with the patent prosecutor, and get some patent applications on file. Then if somebody comes after you with a patent application—assuming that it is an operating entity and not a troll—you can say, "Oh, but you actually are in violation of my patents too." You have that almost mutually assured destruction, which is what we see has already happened in the more established tech community.

I think we are going to see many things happening in the patent area. We know Zynga has filed a ton of patents. So, right now most of the patent litigation in this phase is trolls—non-practicing entities that own patents. Frankly, they are rather silly. But I think in the next ten years, that is going

Edward James Bass, How YouTube Became the Place to Go for Music on the Web, The Next Web, January 22, 2011, http://thenextweb.com/media/2011/01/ 22/how-youtube-became-the-go-to-place-for-music-on-the-web/; citing Nielsen Music, Digital Music Consumption and Digital Music Access 4 (2011).

to be a big transition in the social gaming space, so I think the best way to protect yourself—little guy, medium-sized guy, big guy—is to file your own patent applications. Get yourself out there in the game so that you have something to put down on the table against somebody else.

Mr. Hilleman: I will try my best to describe the strategy I am selling at Electronic Arts. Our vision is that it is a minefield, and that some of the mines are extraordinarily well marked. Apple marks theirs very well. In fact, Apple and Samsung argue about the ones they mark very well together. Some of them are not marked, and those are scary: the ones that you do not know are there and you build your entire product line on it. It does not even have to be a troll; it can just be a ten-year-old patent that is buried in LodgeNet's asset base, as an example. If you watch how patents are written, sometimes you will see odd things that I call a notch in the patent, where it tends to write itself around something. That is a danger sign. If you see a patent that they did not obviously cleave, or that they worked around something, somewhere out there is something else that they are afraid of. They have written their way around it.

What I have described at Electronic Arts is that we need to develop a really good map of the land mines. We need to know where things are as best we can, and then we need to build bridges over the places of which we are unsure. Those bridges are built out of our own patents.

The final thing is that you are going to have partners. There are going to be patents that you do not own that you need to get your jobs done. Ms. Luedtke is right; the most valuable thing in that space are patents of your own to trade. You do not want to be paying back and forth; you want to be trading access to intellectual property.

Companies like Electronic Arts are increasingly thinking about being in these patent portfolios, and the reason is that they are just large enough to be worth it. You have to decide which ones you are in; some of them are ironic. For instance there are some that we have considered being in that Zynga is already in. The irony of that, of course, is that means that we cannot sue each other. So it would be interesting if we joined one of those to see whether they stayed.

I think you are going to see us employ a portfolio of those strategies together to manage the risks and the opportunities. For us, the greatest point is that you can no longer depend on the good will of your competitors. They are not going to behave that way in this space. You have to protect your own real estate, or nobody else will.

I want to talk about the use of litigation offensively, defensively, and as a source of business development. What I have noticed about this space, which has not been true in the video game space before, is generally if there was a lawsuit filed in the video game space before, people actually cared about how it came out. The two parties in the suit actually wanted to know what the answer was. The point of the suit was a genuine disagreement between two companies about what this point of law meant to the two of them. I do not think that is what this type of litigation is about. Increasingly, this is the other tactic that seems to come from telecom—the "Shoot the gun first, and ask the questions later."

I think that this is new to us in the business, and the hardest thing for us is not to overreact. So you have to be ready legally to do things. You have to be ready to deal with the fact that this is essentially a public relations activity, as much as it is a litigation activity. That means that it is probably as important that you have a public relations response as a litigious response to this activity. I think the most underestimated thing I have seen is that the small companies go deal with the legal issues, but fail to deal with the public relations issues.

Mr. Olin: I think that is the challenge. You have ranchers, and we are homesteaders.

Mr. Mustaine: You and I are in the same boat. You people are concerned about patents. As a small bootstrap developer even discussing the word "patents," if I call my attorney and say, "I'm thinking about patents," the bill just shoots through the roof. As a small developer, I rather draw the line in the sand early on. If I were planning to start a company in this space tomorrow, I would need to have a partner that is in the legal space, and I would have to give equity to that partner. Or I could just go the route of the independent developer and say, "I'm just going to do it and see what happens."

Live in the weeds as long as possible, or do not live in the weeds and just step on everybody. Be super vocal about it, which is what many of these developers do. They wait for somebody to wrap protection around them later on if they are doing very well, or they just disappear into the sunset if they do not do very well.

From the very beginning, you have to make those kinds of decisions. Without an angel investor, or an investment from a third party, or a mountain of cash in the background, it is difficult to come in the beginning and say, "We're going to have our game design meetings in my garage, and let's bring our attorney buddy in." It is difficult. With that said, we are going to have to solve that problem going forward if it is going to continue down this path. If these kinds of things had come up at my company prior to its acquisition, I would be running around with my head on fire.

Mr. Olin: I think the primary challenge is in looking at creating new, independent properties. Entertainment properties are the things that you now have to navigate. There are terms of service you have to create for your own game. There is your privacy policy and the issue of who actually owns the transaction within a Facebook-connected universe. Is it Facebook? They say they are your agent, but at other times, they say, "No, they already had existing Facebook credits, so they're not really your customer; they're mine."

Mr. Hilleman: In that context, there are several things that have changed in our industry: who is playing, where are they playing, and how do they pay for it? How they pay for it is maybe the most interesting part today.

We learned something very early on in *Godfather*. We built an in-game transaction where the very first time you were pinned down in a firefight

without a gun, a guy would come up and offer to sell you a gun for a dollar. What percentage of people do you think bought that? Sixty percent of people who had Xbox live, and had credits, bought it. So, what do we learn from that? It is good to do the transaction in the game, especially at the right time. That has led us to recognize that taking people out of the game to execute one of those transactions is unacceptable and deadly friction that we cannot do.

That has driven the commerce into the game, but that has also created new legal issues. For instance, if I am on Facebook, and I am using Facebook credits, who is the merchant of record? In fact, it turns out that depending on what country I am in, it might completely change.

Secondly, if I do that transaction with a different cash device, like PayPal, for instance, who currently owns that merchant of record and who has the currency responsibility? This stuff is a mess. We spend a tremendous amount of our time trying to track that.

Finally, we will get down to the last thing. There is a certain cognitive dissonance from Amazon, and from Google to a lesser extent, where, because they do not want to deal with the local tax issues, they pretend that they cannot do things. The problem for me is that I have a retail packaged goods presence in a lot of these places, and I do not get to evade local taxes. So when Google will not tell me where they sold stuff, I have a real problem because I basically have to guess.

So, this is our future. On the retail side, suddenly we stumble into businesses that we have never been in before with responsibilities that we have never taken before.

Ms. Luedtke: I think that is correct. Then, the privacy issues come along with having all that monetization information in addition to personal information. You have people's credit card numbers, their PayPal links, and all that personal information. What do you do with it? What if somebody hacks in and steals it?

Mr. Hilleman: We lived through the hacker wars last March. There were instances where people should have gotten credit cards, and they did not. It was not because they could not; it was because they did not. In many cases, it was because they got distracted, oddly enough. Some proportion of what went on last spring was good, old-fashioned "kids trying to get unprotected PC executables," meaning that they were doing the same things they have been doing since I have been in the business: trying to steal software. In many cases, they went in one door when the credit cards went in the next door.

We are just lucky that did not happen this year. What you are going to see as a result is that people like Mr. Mustaine are going to say, "I never want those credit cards. I do not want to see them. I do not want to know about them. I want nothing to do with that." Maybe that will help defend you from the retail error of record circumstances.

Mr. Mustaine: Honestly, that issue came up on part of our due diligence. As a developer, I shipped a couple of games on iOS. I selected "worldwide," because on Apple it is a radio dialogue. I thought, "Okay, yeah, I'll put this out to the world."

Then when it came to the question of what territories I operate in, I told them that it was the United States. Then they said, "Oh, wait." Then, I had to list every single country, all the territories associated with Google, associated with Apple, associated with everything I have ever shipped this title to. That created a lot of paperwork associated with our little, tiny game.

Mr. Hilleman: Actually, in that particular case, your paperwork pile was probably longer than your source code.

Mr. Mustaine: Absolutely, it was an interesting revelation. An unexpected problem would arise, and the solution was to give it to lawyers and write a bigger check.

Mr. Olin: To a certain extent, I think part of it is that within Facebook, I feel like I am a mall merchant. I am one of those individuals in a kiosk. I am in for a cheap price. I am paying \$3500 for a weekend, and I am hoping that it is going to be a good weekend. And if I build it up at any given point in time, Facebook, the landlord, can basically change my rent. I do not get to control as much as I really think I need to, and that is just the dynamic. We know that going in, but knowing going in and operating in it is different. There is a pain threshold. All of a sudden you start looking at your application and your service model, and you really have to go back and ask, "What service am I going to be able to offer to a user or player competitively, so I can still make enough money to do all the things to protect myself and to provide them some value." It is tough. It is a better game than the games that retailers are selling for \$60.

Mr. Mustaine: That is an interesting topic, too. We are really standing on the shoulders of Facebook and on the shoulders of Google and the shoulders of other platforms, which is interesting because they have a great API. They let you jump in with a small shop. With a small shop mentality, one of the big issues we face compared to Zynga or somebody larger like Electronic Arts, is when Facebook decides to say arbitrarily, "Let's change the API so this happens instead of that." About three or four hours later, our analytics tell us that something is wrong. We have no idea what is wrong or if it is broken. I do not have a red line to Facebook to ask, "Hey, what did you change?" We submit a ticket that is a hidden URL that you have to find once and hope you save it somewhere and wait a week for it to come back. So I literally have to go out and find what the problem is by stumbling on it through the analytics, or one of the big boys tells us, "Oh, by the way, that happened."

Mr. Hilleman: Next, we will discuss "commerce providers." These are different partners. We have had interesting relationships with our retailers in the past. Sometimes, they have been fun and other times, they have been painful. Nevertheless, this has really been quite different. The relationship that we had with Toys R Us or with EB, for instance, was as if it was our customer together. The vast majority of players in this new commercial space have a very proprietary relationship with their customers. They want to have lots of lives and they do not want to share any of them. Thus, the issue for us is: How do we work with a partner who is so devoted to his or her own existence really at the expense of everybody else? It is our job to be constantly in the education business for them about what the opportunities are.

The good news is that every one of these people knows that game content is the reason that they are where they are today. Compare that with twenty years ago. Steve Jobs was never happy about having games on his platforms, although his customers would buy the games, and we would do quite well in the business. He was just not interested. Those things are changing. The people who are on IOS know where their bread is buttered. If you do not think that Facebook knows where its revenue-base comes from, you need to pay attention more carefully because it is very clear on it. The good news is they are paying attention now and know what we really are doing for them. It has not changed its behavior very much. However, it means that we are part of the conversation. It also means that if we have leadership ideas and innovations that can change its space, Facebook listens now and does not do not blow us off. So, the key is to make sure that when you have those conversations, you are managing them as a relationship point of access, which is the upside for us.

We have been managing a platform agnostic relationship between three platform providers for twenty years, which is like having three sisters as girlfriends. It is a tremendous amount of work. We understand that it is about making each of those partners feel special and feel that they have the necessary things to meet their strategy, but without excluding that from the other people involved. I am hoping that the kind of sophistication that we have had from our relationships in the past, we can continue to have in the future, especially if we are helping them see the future that could help them. So, as a social gamer, when you walk through the door at Facebook, Google, or IOS shop, you offer them a glimpse of the future that they are looking for. That is the asset you have.

Another interesting aspect of the gaming business is that a big chunk of social gaming space has been built around the creation and distribution of virtual goods. I think that we are unwittingly walking into a space where we are going to walk between who owns what property. For example, if you sell virtual goods in your store, how long do I get to have those goods? Some parts of the world have solved this in a different way. In the Korean gaming constructs, you generally get possessions that wear. This means that you will buy a piece of clothing on MaplesStorey, and seven days later it is rags. This affects a couple of things simultaneously. First, this builds churn for the business, which is a good thing. Second, it clearly creates a sunset for your ownership of that item, which does a couple of things at the same time. One, it manages your expectation of how long you own it by design. Two, it frees up data space for me, that I do not have to carry a bunch of dead stuff around on my database to manage your relationship. That is not what has been happening in U.S. so far. Ms. Luedtke, have you seen any of this happen?

Ms. Luedtke: I actually have not seen that play out in litigation yet. But, we have definitely anticipated it. It comes up a lot when I talk to clients who are going to sunset a game. It's hard for me to do that. These games are not going to be around forever. You are going to sunset a game because it is no longer making money for you and it is not worth the time maintaining it. So what do you do with all the virtual goods people have purchased?

Mr. Hilleman: And by the way, it is your worst security bomb though. Usually, the older the game you run, the older the server, and the more it is your problem. It is the door that people come to knock and the door that people break into. So, you have this double-edged sword, where there exists a collection of customers who have an expectation of continued service but there really are not enough of them to pay the bills. So the problem for us is how do you manage those two relationships?

Ms. Luedtke: I had this come up in the Vostu situations, where they were trying to shut us down in Brazil. We went into the Brazilian courts and actually used a consumer protection argument to say do not shut these games down, that there are 35 million users playing these games, many of whom have spent real world money to buy things for their cities, farms, and pets. We argued that if you shut this game down, they are going to lose their hard-earned money. I think it was a compelling argument. However, I think it is just a matter of time before there is some sort of consumer class action. For example, if Electronic Arts or Disney sunsets a game, the customers would want their virtual goods back.

Mr. Hilleman: Or it could just be a service outage. All that needs to happen is a service outage before the client database is written to the central database, and you will lose those transactions.

Mr. Mustaine: That has happened. 99.9999% of the time, everything is fine for Amazon. But there's the 0.0001% of time that you are out for three hours, and everything you have done is toast. As a game designer, I would advise you to think about sunsetting in the fundamental way that you sell things to people. There are ways where you can sell things on a permanent basis, recognizing responsibilities that come with that. Otherwise, there is no particular good reason to do that. In fact, it is probably bad for your business model. Therefore, you can manage legal exposure and make your business better, by simply making a different game design decision in that particular case.

Next, we will discuss gaming in the world. Metagaming is the notion that the game is everywhere you are. The original core of our business was very brand-aligned. If somebody owned a Playstation 3, they would never buy a Nintendo DS, unless they were in the business. But a vast majority of guys were Sony, Nintendo or Xbox. There was no crossing of lines. The new audience, which is ten or twenty times as large as that old audience, does not care. They are willing to cross the lines. They do not think about the world that way at all. They want the game to run on the device in their hand at any moment in time, anywhere. When that is true, their notions of metagaming have to cross all of those places.

The other thing is that once you get to this audience, you are no longer competing for their money, but you are competing for their time. If you let them wander off your game to some other device, you will not get them back, and you certainly won't get them back the same way that you wanted. Hence, metagaming is a very important tool for getting that accomplished. The challenge for us is that metagaming means piercing the walls of all of the walled gardens out there and making all the selfish giants happy about it at the same time. Our strategy is to try to provide so much value outside the castle that they open the door for us. They do it because they make their customers happy at the same time. However, that is going to be an interesting question over the next several years. How do you integrate an audience that very much reflects what I would call the Google-end view of the world, which means everything is open, with the most predominant commercial models today, which are increasingly closed? And some, for example, both Microsoft and Apple, are trying to close formerly open markets. This conflict is going out there between the fundamental tendencies of their customers and the commercial tendencies of the masters of that intellectual property. We are going to be the grease in that wheel. We will have to figure out how to solve those problems between those platform owners and those commercial guys.

Mr. Olin: I think you have described a strategy that works for Electronic Arts as an ongoing business of mass entertainment. For those of us who are just aspiring game makers, who want to be creators, and have an audience and a business, we cannot necessarily compete in the same way.

Mr. Mustaine: Sometimes the early pioneers will get into initiatives that you guys may not get into, which is a double-edged sword. It gets us ahead of the curve, but it also makes us the pioneer of the errors. Another problem is where a user expectation of this platform is not met because of some feature that Apple has, that does not exist on this platform in any way, shape, or form. We are blamed for the missing feature.

Mr. Olin: What happens is that we would like to think that we are bunch of reasonably smart people on the team, strategically very much aligned with the ubiquity of our application, and that it should, and could, live any place. The reality is that they do not have the resources to do it all. So, I have to take a stand and figure out where am I going to get the highest return and balance that against what the investors' expectations are in terms of our traction points for future investments. Everyone says that you need to be on an iDevice. Accordingly, the analysis is, here are the costs, trade-offs, and marketing costs, hard cash as well as soft, and here is where you are going to be.

Mr. Hilleman: I think it is the client's decision. You can build a metagame that runs only on the web. That is one approach that defines the fidelity and immersiveness of some of your choices. However, those distinctions are increasingly closing. We have seen some impressive work that we have gotten out of HML web GL. So maybe the other closure on this is that

the web continues to be open, and that might be the one door they always keep open.

Mr. Mustaine: There is a fundamental decision to be made. When using a console platform, you may want to put your database on a user access account behind secured closed walls.

Audience Member: Do you think games such as *Sky Room* will ever have a social networking Facebook-type platform?

Mr. Hilleman: Do we think that we will see high quality AAA immersive games ever merged on Facebook?

Mr. Mustaine: Right now, some cool stuff is happening in Flash that makes games free, and that is a step in a direction. A hardcore developer, who is working on a war game and who just does not care about things like Facebook, is approached by somebody and told that he or she should have a Facebook button that does a sharing of some type. They get a little bit of a taste of how eight million people hit share in this game, making it a huge game. Suddenly, you are pulling pieces over from each area. I think we will see distilled versions of games on places like Facebook. I could see the *Call of Duty* game appearing on Facebook, which is going to engage people even more in that space.

Mr. Olin: Just because you can get *Lord of the Rings* on the TV set in the bedroom at your home does not mean that you are going to say that it is the same quality of experience of being in the theatre. At various times, you will want to consume various things. Considering the ubiquity of time and session, and the fact that on smaller screens, smaller footprints on our mobile lives, it is the frequency of entertainment options of instantaneous reward, as opposed to deep and immersive.

Mr. Hilleman: It is granularity times frequency—it is a question of how big the pieces are that you eat, and how often you play them. For Facebook, those tend to be 90-120 seconds bytes, 25-30 times a day. For the average mobile applications, there are 90-second gameplays about 20 times a day.

Mr. Olin: One thing we learned about music games is that music does not work in 90 seconds.

Now, tracts are 350 seconds, or 420 seconds, and that changes the dynamic of what we are trying to do. But when people are playing games, they may have to stop playing 20 seconds into the song.

Audience Member: How useful is a design patent for game elements or devices?

Ms. Luedtke: I think that is a good question. I think it cannot hurt to start to get patents. On the other hand, I also think it is a question of how much they will be able to be used. Knockoffs are happening. Apple, for example, is increasingly trying to enforce its design patents. At this point, it cannot hurt to do it, but we will see.

Mr. Hilleman: I own seventeen thousand video games. That is a huge amount of prior art. One issue is that you are either going to end up with a narrow application within the patent space, or you are going to get obliterated later on by prior art. The question is simply going to be how successful companies like mine are in finding and applying prior art to keep those spaces open, because that is pretty much our only alternative in that case. But, I think patents are worth filing for defensive reasons alone. I think that is what Ms. Luedtke is saying. My concern is that I think virtually everything in the gaming space has been done fifty times.

Audience Member: In other jurisdictions, for example South Africa, design patents are much easier to enforce than copyrights, because with copyrights you must show proof of originality and proof of origin. So purely from a litigation point of view, do you find design patents to be helpful or irrelevant?

Ms. Luedtke: It depends on the situation—I think it depends on your game. I do see people out there enforcing design patents more and more now.¹⁸ Obviously, there is the cost problem. It is true that when you call up the patent prosecutors, it costs money. But because this industry is so fluid, and we do not know how it is going to play out, I would err on the side of getting design patents and trying to use them.

Ms. Nguyen: Let me chime in for a second. I have done litigation on design patents and the prior art issues. I spent six months and had the question go out to industry to gather prior art. It is a costly process as well. So the litigation for design patents does not mean that it is cheaper—it is time cumbersome.

Mr. Hilleman: Clearly, there are companies like Apple that believe in them. When I play sports, I do the things that are necessary to win. If my competitor is going to behave in a particular way, I have to either mitigate that, have a defense against it, or play that game. To some extent, you operate in this competitive context. You have to do what is necessary, and this is a good example of that.

Audience Member: I have a question for you about small businesses and startup companies: Why is it not a good strategy to start the company and ignore the legal issues? To get a patent, it costs tens of thousands of dollars and a lot of management. Instead, you could make the game, make money, be sued, shut the company down, and start over again. Considering that a lot of these small games that they are making on these platforms are costing one hundred to two hundred thousand dollars to make—you are spending fifty thousand dollars just to get a patent, and then you have to litigate it if you are really thinking about using it.

Mr. Mustaine: You could end up in real trouble in this situation, so early on we try just to fly under the radar; this weeds strategy works very well. Until you get to a point where you have something of significant value, do everything in your power to align the dominoes such that when you are ready to put that out, they are going to fall in an order that at least gives you some protection. If they do not, then you are in trouble. If they do, then your

^{18.} See e.g., Christopher Carani, Apple v. Samsung: Intelligence on Apple's U.S. Design Patent Offensive, 82 PTCJ 906 (2011).

buying partner, your friends, or whomever you are collaborating with is going to end up owning that risk instead of you. I think that is important, so you definitely have to think of it. The indie developer strategy of, "Let's just do it again, and start over," is not a good strategy generally.

Mr. Olin: Well, certainly not if you have these things called investors. They have a completely different perspective. They know that they are in a risky position-they are doing startups. They come in and, unless it is your mom and dad, or real angel money, investors have their eyes open. They see what they want to see, but their eyes are still open. If you know in the back of your head as the guy is trying to put something together that you are at risk because you are about to take Zynga's latest game, and you have already put the front end code on your server, then you are going to get yourself into trouble. I think that most of us who want to try to do something new were motivated because we think that we are clever. We think this music thing that we are working on has a lot of merit to it-time and our audience will tell whether we were right or wrong and there will either be a better reward or not. What I tend to do is borrow from very talented attorneys as far as terms of services, our users, our rights-we get guidance from our USC attorneys because they are the deepest of deep pockets in terms of a minority stake in our enterprise. Importantly, Facebook and Zynga also offer some guidance in terms of what their approaches are. You take all of that in, close your eyes, and go forward, because that is why you are here. And you look at the consequences at a given moment in time. I can tell you that if any of the three major labels named us in a suit, we would be done, stopped within about 0.2 seconds of it being on Tech Crunch, because USC has just basically said they have no stomach for that.

Mr. Hilleman: There are two reasons to start a company: one reason is because you like the company, and you want the company to be successful; the other reason is to get found. That strategy that the audience member who asked the question described is a great strategy if you are an independent talent without financing that wants other people to find him or her. When a big guy steps you on when you have a clever idea, all of their competitors pay attention and come calling at your door.

Mr. Mustaine: In essence, if you are litigating you are doing something right.

Mr. Hilleman: Exactly. It means it is worth it.

Audience Member: Ms. Luedtke, I am sure your services are not cheap, as most attorneys are not, and patents are not always the way to go. However, having an attorney at least look over things is very helpful. So, it is worth it to jump on the backs of those companies, and then try to tailor the guidance with your company, and then use the services of somebody like Ms. Luedtke to just look over your final work and make sure that you are at least getting some sort of protection.

Ms. Luedtke: One resource out there right now that I am increasingly seeing smaller companies use is contract-based general counsels. There are services from which you could get a contract-based lawyer at an affordable

price. Many of these lawyers, frankly, are women who have decided they cannot do the big law firm thing and do this instead in order to manage a balanced life. These great people are really skilled and talented. You can get them to be a contract-based general counsel that will get to know your company at a much lower rate than a law firm's rates, and it is probably less expensive than hiring them full-time.

Audience Member: If you can find a contract-based attorney active in this particular space, you get all of that great work that they are doing with all of those other companies.

Ms. Luedtke: Exactly.

Mr. Hilleman: The network effect.

Audience Member: I have a hypothetical: One of the things that would be attractive about having a small social company is that you could bootstrap with several guys and keep your overhead down while making one hundred grand a month, and everybody is happy. When you start dragging in lawyers and all kinds of massive protections, the overhead burden gets so great that you cannot keep the lights on. So what advice would you give guys who were generously inspired by Zynga?

Mr. Hilleman: My advice is that, if you are not in a position to defend yourself, you must innovate. That is the unfortunate fact. In that case, what you have to do is employ what I was describing before, which is now their calling card—that is the best option they have.

I own a piece of a small guitar company called Alembic, which is a tiny northern California company famous for making John Paul Jones's bass, John Entwhistle's bass, John McFee's bass-apparently, if your name is John, you buy our bass. These are very high end, nine thousand dollar instruments. We could not purchase Alembic.com, but we could acquire Bass.com. Since we were best known for making basses, we purchased Bass.com. After we had owned it for about five years, we got a note from the Bass Shoe Company telling us to vacate our existing site and that, if not, they were going to sue us. Alembic is not a big company; however, the Bass Shoe Company is a scary thing. But, I remembered from Trivial Pursuit that the oldest two trademarks in the world are the Bass Ale Diamond and the Heineken Red Star.¹⁹ In addition, there is an argument about which one is older. What that meant was that I needed to go find a bigger bully. We called up the Bass Sail Company and said, "Would you like B-a-s-s.com? If you get us Alembic.com, we will give it to you." So, we made that deal and the best part is the Bass Shoe guy got nothing.

^{19.} The Bass red triangle, which the speaker misidentifies as a diamond, is in fact the United Kingdom's first registered trademark. Intercontinental Hotel Group, http://www.ihgplc.com/index.asp?pageid=326 (last visited Apr. 17, 2012).