PROFESSOR: All right, so today is the last of our guest lectures before we go into, what else? Sorry. Not the last day. This is Monday, right?

AUDIENCE: It's Monday.

PROFESSOR: I'm already feeling the crunch. So we've got-- this is the last week of guest lectures. Today, we've got Michael Carrier and Jenna Hostein talking to us about the business of Indie development. They are representatives from PD Game Collective. That happens-- they are a group of people who make games together over in Intrepid Labs? And that's over which [INAUDIBLE] building?

AUDIENCE: The American Fine Building.

PROFESSOR: The American Fine Building. They'll talk more about that. They often have open lunch days and things like that for students to come. So I'm sure they'll talk a little bit about that as well. They will also be available after the guest lecture. If you want them to play your game and get some feedback on your game if your game is ready to get more feedback, they can do that. It's again entirely optional. If you have a build-- hopefully you do-- I'll allow you to play briefly and get some feedback from them. That's it. So I'm going to hand the stage over to them.

JENNA HOSTEIN: Is my audio working? We're good? All right. Hello. My name is Jenna Hostein. I'm the founder of Little World Interactive, and I'm a part of the Indie Game Collective, as Rick said. We're about six or seven blocks north, so we'd love to see you guys either in the evenings, or we do Friday lunch get-togethers. Michael can fill you in on that. He is more familiar with the details than I am.

But I am here to talk to you today about the business of Indie development. If you're an Indie developer, you can't get away from business. When I first started, I-- I am a designer by trade and a developer by necessity, and a business person dragged kicking and screaming into it. It was really something I was interested in. It remains something that I'm not super passionate

about, but it's absolutely crucial to have any level of success. So I'm going to talk to you a little bit about what the past couple years have been like.

So first, let's talk about the realities of time as an Indie developer. When I worked at a larger studio, I used to daydream about what it would be like to work as an Indie developer. In those dreams, it was me by myself sitting at my desk just working, and that, to me, was like this beautiful, glorious manna from heaven. I just wanted to sit and work on my game. So this was, naively, my expectation going into Indie game development-- that this was going to my life. I actually found out, that was not the truth.

So there are events all of the time in the game world. There's PAX east, PAX south, PAX prime, PAX Australia. GEC, Indie K, Games for Change. I could probably list five or ten more events off the top of my head. It's absolutely crucial that you attend these both as an attendee just to network and to exhibit your game.

For example, PAX prime this year, it took probably two, three, maybe even four weeks full time prepping for that, attending that, and then coming down from that and tying up all the loose ends. So do not underestimate the amount of time that it takes to actually attend a lot of these events.

Marketing. Another thing that is really not my favorite, but I think a lot of Indie developers have a tendency to make their game their beautiful precious baby, and then they throw it over the fence and they say, am I a millionaire yet? And that's just not how it works. It's a constant ongoing effort to make people aware of your game, to make people care at all about your game. Because guess what? You're one of thousands and thousands of developers who are doing exactly the same thing. So this has to be a constant ongoing effort to rise above the noise.

Communication internal. So I discovered very quickly that I am terrible at art, I am terrible at sound, I am terrible at marketing. So I brought in other people to do these things. And when you work with other people, you have to talk to those other people, so that takes time.

Communication external. There is a huge Indie game dev community, and if you're not taking advantage of those folks and really learning as much as you can from them, then you are doomed to fail. I saw somebody recently who has been at Indie for about a year and a half, and he was doing this-- where he was sitting in his house very, very insulated and he had

created a game that didn't look wildly interesting and clearly had not gotten input from almost anybody. He was working on his own engine and it looked like something we could have built in Unity in probably a couple of weeks. So that, to me, was clearly a failure of just talking to other Indies and learning from them what they're doing and their successes and their failures.

QA and deployment. Learning how to do QA and learning how to deploy was another huge hurdle for me, and this just takes time. I have released very, very broken builds before, and you don't want to do that. So QA is a necessity.

So this chart, to me, is really interesting, because if you look at how squashed that bottom bar has gotten. I spend less than half of my time actually making the game. And that's why I got into this in the first place-- I just wanted to make my own games. So this is the reality of the situation. This is not a bad thing. This is just how it has to be to have really any level of success.

So when I first-- I developed The Counting Kingdom-- sorry, I totally forgot to introduce myself. I made an educational game for kids called the Counting Kingdom. Just released for iOS recently, also on Steam. When I first budgeted out how long I thought that would take, it was about six months. It ended up taking about a year. And if you take into consideration this chart, I was right on, because given I was only spending about half my time working on the game, it took twice as long as I thought it was going to make. So now, whenever I try to estimate how long something will take, I take my gut check and then I double it, and that's usually pretty accurate.

OK. So let's talk about working with other folks. So I discovered very, very quickly, I'm not particularly good at art. I'm not particularly good at sound. So I needed to bring in other people to compensate in these areas that I was failing. So I work with six people very, very part time. Luigi does art, Will does PR, Sam does animation, Jonas does sound effects. Brendan does music and Emma does community management. And all of these people were not just random people. At no point did I put out something into the world saying, I'm looking for a community manager-- get in touch. I would never do that. That sounds like a lot of work and just a terrible way to actually find somebody.

So both Luigi and Will are folks that I met through the local games community. Luigi did the art for Girls Like Robots, and I basically stalked him and tracked him down. I was like, whoever did this, I need them to make my game. Fortunately, he was a local guys, and so I got to meet

him, talk to him and discover that he was a great for the team.

Both Sam and Jonas were folks that were recommended by people I trust. Sam was an intern that I brought into a local university and Jonas was somebody that had sent in a great portfolio piece to another company. They were not able to hire him, but they basically put the word out saying, this audio guy looks amazing. If anybody is looking for an audio person, you should snap him up. So that's exactly what I did.

Then Brendan and Emma are people that I previously worked with. So the lesson to take away here is, you have to be networking. All of these folks were either people that I knew directly or people that knew somebody that I knew. As an Indie developer, I have no time. We've discussed this at length. I literally have no time. I am working more than full time, and so I cannot micromanage somebody, I cannot be on somebody's ass to make sure they're getting their work done. And so, when I bring somebody into the team, it has to be somebody that I trust to not only do work, but to do amazing work and to be able to do that independently.

So, for me, that means working with folks that I already know, that I already trust, and with folks that are highly recommended to me by people that I trust. And nobody else. So if you're interested in working with an Indie company, don't sit around waiting for them to put out job requests. You need to be actively trying to meet these folks. Network.

So I want to talk a little bit in detail about what it means for me to hire somebody. This is how I do it-- it's not necessarily how everybody does it. When I bring somebody in, I have them sign a work for hire contract. That basically just means that they do work, I pay them, and my company owns the work that they do.

I then create separate schedules, and that's a tiny one page document that says, reference all that other stuff in the contract. Here is what needs to be done by the contractor. It needs to be done by this date, and here's what they're getting paid. So it's a very, very simple document.

You can do the payment in a couple of different ways. So when I first worked with Luigi, who's our artist, we worked by bundles. So I would say, I need this list of art assets. When do you think you can get them to me, and what would be a reasonable price? And we would negotiate both of those last two things. It was usually three or four weeks, and we would put that up in the schedule and then he would go off and do that work.

Right now we've switched to hourly, just because it made sense towards the end of the

project, because I would be like, oh, I need this one particular tiny little thing that I completely forgot about, and that didn't make sense to do entire bundle for like $20 worth of work. So we switched to hourly.

It's also common to do revenue share. That could be the entirety of the payment, or that can be on top of hourly payment. Really depends on who you're working with and what make sense for you.

So this is just an example-- oh my gosh, sorry. This set up automatically.

Oops, there we go. OK. So this is an example of a bundle that I did with Luigi. You can see it just lists in detail all of the tiny little things that I needed at that point. So we ended up doing four or five big bundles and then swapped to hourly. This was about halfway through the project, so you can see some things are on the first strap, like the world map. Some things are getting a lot more detailed, like the level backgrounds. But this is it. A schedule is not super complicated. It's just a list of what needs to be done, when it needs to be done by, and how a person's getting paid for it.

The last thing I want to talk about is the long tail. We have this idea, I think, in Indie development that you're launch day needs to be your big day. Especially in mobile, you see these graphs where it's like, launch day the rest of the time. Those graphs are super scary, because it means if you're not making a huge amount of money on your launch day, you have absolutely no income. I think this is 100% the wrong way to think about it.

When I launched The Counting Kingdom on Steam, it sold 35 copies on launch day. 35 copies. I didn't think that was possible for a Steam game to sell that few copies on launch day. So that blew my mind, and I was kind of like, OK, I need to really rethink what I'm doing here.

And since then, it's sold well. It's sold steadily. I've sold a lot more than 35 copies since then. But I've had to really flip my thinking about where the money is being made. So the point here is, this is not a business plan. Bullet point two has to be a lot of different things and it has to be over a large span of time.

So for The Counting Kingdom, we started on Steam and the Humble Store. We got into a Humble Weekly bundle, which was absolutely phenomenal, and so far, has been where the biggest chunk of our money has come from. Just launched on iOS, and I'm looking towards

the future. There's a lot of different things I could do. I'm considering porting to Android, I'm considering trying to get into schools. I'm also talking with other companies about potentially licensing The Counting Kingdom for various opportunities.

This has to be ongoing. There's the work of making the game, and then there's the work of making money from the game, and those are two separate things. That kind of sucks, but it takes that much work to actually make money from something that you've already poured your heart and soul into. But that's just the reality of the business of making games. So this is frustrating, but that's just something that, again, is a reality of being any developer. It's something you have to be aware of.

So that is all I have for you. And Michael, come on down.

MICHAEL CARRIER: So my name is Michael Carrier. I'm the founder of Zap Dot, Inc. I also am one of the co-leaders of Boston Indies and the founder of the Indie Game Collective. It's a, as Rick mentioned, a small group of studios in the Cambridge area that work together, and we do a lot of things to try to help ensure that everybody is doing some awesome work and that our products are coming out really pretty.

Some of the projects that I've worked on-- so I started off at Harmonics and I worked on a bunch of titles there. From there, I did an apprenticeship with an MIT alum, [INAUDIBLE] on the game Fallen Frontier after he left Bungee. I worked with the BBC and a company out in west coast called Pipeworks for Dancing With The Stars free to play online web game.

I worked with some local Indies, Alchemy Labs on Jack Lumber, and Dejobaan Studios in a game called Drop That Beat Like An Ugly Baby. Another contract gig for me was, the bottom left, it's called Culture Shock, which was a game that taught people who are being deployed to the Middle East cultural awareness. This is really a cool game for a group of neuroscientists to try to prove that games can help people recover from concussions effectively and efficiently. And my two current projects, [INAUDIBLE], which is some contract work and Pleasant Dreams, which is a digital reboot of a physical table top game.

Out of these-- one second-- out of these, the top four were employment, and then Dancing With The Stars, Culture Shock, [INAUDIBLE] and this neurologist game were contract work.

So what I'd like to do is give everybody a little bit of context for the information that we'll be talking about today. There is a differentiation between AAA and Indie. I would prefer not to use

that terminology. I want to talk about big company versus small company. Main reason being, with the tools that are out there today, AAA and Indie used to be a description of quality or subject matter, and I really think those lines are becoming blurred. So talking about largest to small company really can encompass the type of work that you will be doing at those small companies or big companies. Either way, the direction that you take is going to be really challenging for one reason or another.

So if you work at a larger company, it's really important for you to have a vast amount of domain knowledge. It's going to be challenging, because you're not only competing with local talent, but global talent. There are people from all over the world that want to work at these companies, and these are some of the larger companies that do hire and have hired in the Boston area.

But if you know the story behind some of these companies, there is a lot of overturn as well. You end up having people that come and go and are laid off from project to project just because of the state of the industry being more of a project-based industry that a long-term employment type of industry. So not only are you competing with people all over the world, but you're also competing with really bright people who have had years and years of experience at companies like these.

Smaller companies are slightly different. You have smaller teams, you have smaller budgets, and you have to do more with less. Typically, what you do is you find people doing multiple jobs to serve a lot of roles and share the load as much as they can. With both of these, both small and big companies, the hours are long. People don't always respect you for your work, and unfortunately, the pay isn't always great. Typically, you will make a fraction of the salary that you'd make with the same skill set outside the industry. But you know what? That doesn't faze me. I love the challenge.

Games are a really crazy field. Video games haven't been around in the public for 50 years, and it's an incredible medium already. You want to think about this-- the printing press was released or invented or became into mass use in 1450. It's 564 years later, and now we have global information networks and we're complaining about these e ink displays, at how bad they are or good they are at displaying information to us. The medium constantly changes on how that is distributed. Just imagine where games can go when we are so young in this medium.

So I'm really here to talk to you today about contracting. It has served as my company's

primary method of revenue over the past four years. So there are some really great benefits of it. You get to work on a ton of projects. You meet a lot of people, and you learn a lot about different things. If you're going to go back and think about the projects that I've worked on, I got to work on a free to play property with a really big company who had a huge marketing budget, and it was really well-known name-- Dancing With The Stars. A lot of people know that TV show, or that property. In terms of brand recognition, it's great.

I got to work on a game with some neurologists and try to help show that games have positive impact in the world, and that there are hopefully ways, if the study does come through positively, that we can help people recover from concussions more effectively.

I got to work on a game with the army. Despite what you may think about our involvement, if we can help people learn how to work with each other better, I think that's a really awesome thing to be a part of. Now I'm getting to a point where people are approaching me to consult them for the experience and knowledge that I've gained over the course of the past four to six years that I've been in the industry so far.

So one thing to keep in mind, is that the great thing about consulting and contracting is that there is a ton of work out there. There are plenty of people with ideas and money, but they don't necessarily have the skill or experience to be able to bring that to fruition. Or their ideas were a bit too large, and they need some more people to be able to make those ideas come to life. Sometimes, they just decided they want to bring someone in to help them out with the project that they're working on.

I would also argue that contracting, once you get into the rhythm of it, is a very stable way to make a long-term living in this industry. From what I've been doing by contracting, I'm expecting and anticipating the project to project work that the industry typically creates. With the network that I've been able to create for myself, I actually feel very stable that I will be able to find something that someone will be able to recommend me for whenever a project ends if I decide to keep contracting.

Ultimately, though, my goal is not to do contracting forever. The reason why I created Zap Dot was because I wanted to make and release my own games. When I started off, it was important for me to start generating some revenue for the company so that I could hire people who were worth the-- to bring people because they were worth it. I wanted to be able to pay them. So after the past four or five years, I've been able to gain enough capital for the

company where Zap Dot will actually start working on its own titles.

So I figured I would talk a little bit about the contract life cycle. Very much like Jenna said, events are super, super important. So you'll go to industry events or you'll go to local meetups, and there are a ton of options, especially just in the Boston area alone. And you network and you get to meet people. The best advice that I can offer you when you're networking is, to not network for yourself, but network for others. Find ways to make introductions between different people. Find ways to get jobs for other people.

The way that I've been able to get such an awesome network that I have right now is by getting other people jobs. In doing so, everybody comes-- a lot of people will come to me now for advice or when they have a project that needs to be done. So I become a holder of information in terms of the projects that are available, which, when my company wants to pick one of those, I have, essentially, the pick of the litter for it. Also, it's really good to continually help people also find stability in the industry.

To illustrate that, the first job I got was because I had a conversation in a floral shop when I was buying some flowers for my girlfriend. The second job was based of a recommendation, and the third job was also based on a recommendation. Another job was checking the Boston Indies email list. And the most recent job, someone approached me about doing the work because they had heard that I deliver on time and my work is pretty high quality.

So let's say you do find someone. You find someone and you want to do work with them, or they want work being done. So what you do is, you do this really weird dance with the client and you talk to them for a bit about what kind of work they want to do and what kind of project they want to work on, why they want to involve you in it, and why you should be involved in their project. You either become really scared about the expectations that they have or the money that they have to be able to spend, or you'll fall in love with them, or there'll be some in-between where this is a good calculated decision for you or your company, and it makes sense to do it.

From there, you take those expectations and you put them down to paper. Contracts are really, really important. Never do any work or have anybody do any work for you unless you have them sign some sort of contract. Essentially, what these contracts you do is, they should manage expectations for both you and the person doing work. What happens when something goes wrong on either end?

Be very careful with things like non-disclosure agreements or non-competes. I prefer to have all non-competes written out of contracts that I have signed. I've heard of other people asking for multiples of their time because the customer wanted the non-compete to stick.

One other really important thing to remember, especially when you're doing contracting is, you have the opportunity to fire a client as much as they have the opportunity to fire you. If people start going off contract and they start requesting things that they didn't have and they're not following the rules that you've established between your relationship, then understand that you do have the right to get out of it if it goes sour.

So you've signed the contract. Now you just need to make the game. Then after you make the game, you get paid. Jenna mentioned a bunch of different types of payment. You can do hourly rates-- I've done that. You can do milestone payments where you agree, typically, on two to four weeks of work. You deliver that work, and as long as it is of acceptable quality, the client will accept it and then you the amount of money that you've worked on.

Or you can do a full fee for a project. I've done all three. I would definitely caution against doing full fee for projects, just because-- especially if you're a perfectionist or the client starts trying to add more things-- scope can creep up over time and you-- well, typically for a full project fee, unless you're very, very good about your time management, you'll end up doing more work than what you charged for.

Sometimes you'll find out that you need help. Well, the cycle kind of starts again. You've gone to these events that you people. You do a little dance with them to make sure that they kind of fit the situation for them. If you find someone that you want to be able to work with, you write up a contract.

You set up expectations for the work that they will be coming on to help you with. And now, as an employer of some sort, you have to worry about managing two people. Not only are you managing yourself and the work that you are delivering to a client, you're making sure that your contractor or employee is doing the same thing, that the client's happy. Depending on how many people you add, it can take a lot of your time.

Over the past couple of projects, I have hired help or outsourced some work for the projects that I've done. I've been able to hire about five to six people-- not all at once, and not all for the same thing. But some of the work that I've had people come in for has branched from a couple hours to a monthly milestones that I've paid people to work on.

One really important thing is that, with contracting, especially if you're running your own company, there are a lot of other responsibilities that you have. There are taxes that you need to worry about paying. Stuff that normally would be done if you were an employee is not your responsibility. There are definitely a lot of different laws, especially in Massachusetts, about hiring people. You need to be very careful that you are treating your contractors like contractors and not employees. Otherwise, you should be providing those employees benefits.

And then that's also the same thing, to make sure that the people that are hiring you are treating you like an employee or expecting you to act like an employee. So make sure that you pay attention to the work that you're doing and really round yourself out on the rules and regulations around work.

That's it. So I wanted to open the floor for Jenna and I to let you jump in and talk about any questions.

[APPLAUSE]

MICHAEL CARRIER:	Yes?
AUDIENCE:	Yeah. So do you have any advice for marketing new games? Because I think that's a thing that a lot of [INAUDIBLE] how do you promote your product and where do you do it?
JENNA HOSTEIN:	So I've been doing a lot of ongoing social media. We have a Little World Interactive Twitter account and Facebook page. A lot of it depends very much on the type of game you're making. The best approach to it is a slow drip type of thing. You don't get a week away from launch and go, OK, time to market this.

One thing that I've seen work very successfully is, we have somebody else working in the IGC who's creating a first person dodge ball game, and it's just wacky and fun. So he's had huge success on Reddit and with Live Streamer. So he's an early access, but he's already been very, very successful because he's been able to tap into those communities. It's a lot of, what companies can you tap into? How do you reach those folks? Then going to as many events as you can afford slash have time to.

In the past year, I've exhibited at probably a dozen different events-- some really big, some

really small. But that has been crucial to meeting players in person and also to meeting the journalists that attend those events as well. So definitely approach it as a very ongoing got to put in a little bit of effort every week type thing.

MICHAEL CARRIER: Yeah. Marketing should be a role on itself on your project. So very many people will leave it towards the end, like Jenna mentioned in her talk, or not do it all and just kind of expect people to flock to your game after you've released it.

The other thing is, also as Jenna mentioned in her talk, is that marketing is something that needs to start before your project has launched and continue after it has launched. The more you can kind of interweave it into your game and the entire development process, the better it will be, the more people will know about. The objective is just to get the most people know about your title as possible.

JENNA HOSTEIN: And to add one last thing to that-- the way that I try to approach social media is to give people something that they're excited to share. So if you're just like, the game's still on the store-- nobody's going to care about that tweet or that Facebook post. But we do a lot of cute little cartoons of the characters from the game, share a lot of reviews, a lot of testimonials from parents and teachers.

The NASA online presence is phenomenal. If you want to see how to do social media well, follow the NASA Twitter feed. It's seriously astonishingly good. They just did something the other day where they have a new upcoming mission called Orion, I think. And they did the ABCs of Orion. So they did 26 tweets-- one for each letter-- and each tweet had this beautiful graphic image of like, A for-- I don't remember, I didn't look it at all of them. But it was very, very clever. I ended up re-tweeting the letters, S-P-A-C-E, just because that made me feel clever. But they got me to re-tweet five of their tweets. That's a win for them. So little things like that, you have to think about, what content can you make that other people are going to be really excited to share with their networks?

Yes?

AUDIENCE: What's the street off of [INAUDIBLE] and Massachusetts right now? I know that there was some stuff going to state legislature about whether that's actually enforceable.

MICHAEL CARRIER: Sure. I've heard about that. I don't think it's completely unenforceable yet. I don't think that that's passed to make non-competes unenforceable.

AUDIENCE: So there's debate?

MICHAEL CARRIER: Yeah.

JENNA HOSTEIN: Yeah, that's a really good point, though. You have to look very carefully at any contracts that you sign. A lot of companies will put wording in there-- well, studios will put wording in there that they own anything you make regardless of whether you make it at work or at home. So especially if you're someone who likes working on side projects, that can be very dangerous. So just something to be aware of.

MICHAEL CARRIER: Especially ideas that you've come up with during working on their project. There can be a large-- the more vague they are, the more dangerous it is to you.

AUDIENCE: We have another question.

AUDIENCE: Have either of you worked with either state grants or small business grants-- organizations that basically give money for help for new companies? What's the experience like working some projects if you have?

JENNA HOSTEIN: I have not yet. That's something I'm actively looking into for the next game. The thing that's holding me back is, it looks like a lot of work in a subject area I don't know. I don't know how to write a grant, so that's something I would have to learn for a shot at money. So that's what's had we not pursue that so far.

I'm going to be looking into education-specific grants, which I think I would just have a better shot at, because it's a more narrow field. But-- not yet, but maybe.

MICHAEL CARRIER: The neuroscientist game that I worked on was funded in part, I think, by a grant of the National Institute of Health-- NIH.

AUDIENCE: I got you.

JENNA HOSTEIN: Yeah, and I've heard of a few Indies who are working with institutions who have gotten grant money. But I don't know of too many Indies who have gotten grant money on their own in the United States. So other countries like Canada and Australia-- though, I think, Australia-- maybe not anymore-- how government-funded grants for the arts, so they include games in that. But we do not, unfortunately. I would love some government money.

AUDIENCE: How common is it for studios to be acquired, and is that something they target?

MICHAEL CARRIER: So I would say, it's uncommon at a smaller level. Definitely, the way that you're going to make money as a studio is not from an exit strategy of being purchased by a larger company. It's more along the lines of the revenue that you'll be making from either your contracts or the profits from your game.

That being said, some companies have been purchased. I know one of the other subcontractors I worked with Dancing With The Stars was purchased by a larger company. I know that Amazon has purchased a few game companies when they were launching the Kindle to try to bring games in for their platform.

So it's not impossible, but it's definitely not an exit strategy that most people would start a studio with the expectation of having.

JENNA HOSTEIN: Yeah, and there's definitely a group of Indie studios who are generally between 6 to 12 people and they have an actual CEO who can go out and raise money. Those are Indie in the sense that they're small and self-owned and independently publishing, but it's kind of a different class of Indie, because they can be raising potentially millions of dollars to fund their games. So those are the types of companies that would be most likely to be purchased.

Little Worlds Interactive is just me and my games, and so if somebody were to purchase my company, they would just be hiring me, basically, and like, purchasing my games. So that's probably not something that's going to happen, though it's not unheard of entirely.

MICHAEL CARRIER: And I guess a tangential approach that you could have-- that is, actually taking your games and licensing them out for other properties. Yes?

AUDIENCE: How long were you guys in the industry before starting to do your own thing?

JENNA HOSTEIN: So I was in the industry for-- it depends on what you count. So, grad school for two years and working for four years, and then I've been an Indie for two.

MICHAEL CARRIER: I worked at Harmonics for just under two years before I started doing consulting. The Culture Shock game was my first project out of it.

JENNA HOSTEIN: A lot of people-- just to add onto that and then look at you up there-- a lot of people go straight

from undergrad to Indie, and that's a totally valid approach. But there is also so much to be learned in a studio. Even if that is not your ideal environment-- it certainly wasn't for me-- but I regularly use things that I learned in my time working at a studio. So I wouldn't necessarily recommend just going directly Indie straight from undergrad.

MICHAEL CARRIER: And this is part of a different talk, but-- I didn't go into that. But it's a bad idea, just because there are a lot of mistakes that you'll make on your own that you could have learned from a larger company who's already made those mistakes and can teach you better ways. Not that they'll have all the right answers, but-- and it's not to say that you won't be successful if you were to do it right out of school. It's just much harder to hit.

AUDIENCE: I was just wondering, Jenna-- what did you work on before you became an Indie? What were you doing, or what was grad school and then after that experience?

JENNA HOSTEIN: So after undergrad, I worked at a local startup called Hangout Industries and we were making one of the original 3D virtual worlds. So it was meant to be a social chill place for teen girls. It crashed and burned hard. Most of the lessons I learned at that company were how not to do the things we were trying to do, which is valuable. Which is a very valuable lesson.

So then I went to Indiana University and got my master's degree in game design, and then came back here and worked at Stomp Games, which was formerly Tencent Boston. We did Robot Rising-- and that was a diablo-esque game with robots on Facebook. So I've kind of bounced all over the place. I've made mobile titles, I've made Facebook titles. I had an internship at Turbines where I've worked on MMOs. And like I was saying before, that experience really has just given me a breadth of knowledge that I've been able to apply to Indies.

AUDIENCE: So a number of the other people we brought into class were talking a little bit about the internships that they had [INAUDIBLE] larger companies. Can you talk a little bit about-- so you mentioned you used an intern for your process, Jenna. I forget if you mentioned [INAUDIBLE].

MICHAEL CARRIER: I have not used interns yet, but it's something that I am very excited about.

AUDIENCE: So can you talk a little bit about how it works for your small studio and what the experiences might be for being an intern at one of you studios compared to a larger studio?

JENNA HOSTEIN: Sure. So the intern that I worked with was Sam. He was an animator, and he went to school at

a local animation school, I don't remember what it was called-- and I knew one of the teachers there. As part of their graduate requirements-- I think they called it a co-op-- they just needed to put in a certain number of hours with a local studio. The expectation was that it was unpaid, because they were basically getting course credit for it.

So for me, it was a risk-free situation. Like, basically, I could get somebody to do art for me for free, but they were getting something out of it too, so I didn't have to feel too horribly guilty about not paying them. And it worked out phenomenally. So one of the big differences with working with an Indie versus a large studio is that, I basically said to him, I need animation in my game. If you could do that, please, that would be great.

So he did all of the animation in The Counting Kingdom, first as an internship, and then as a paid contractor down the road. So he got a massive amount of responsibility. The only door art direction I gave him was, like, make it cute, but also scary a little bit, but not too scary. So he had just a huge amount of creative control.

The downside to that was, we all worked remotely, and so I saw him maybe once every couple of weeks. But we stayed in touch to make sure that he knew what was going on, I was going on. So at a larger studio, he would have more face-to-face experience, but be working on a much smaller slice of the pie.

Given that Indie budgets are zero, basically, I would not be able to bring in a paid internship intern. As much as I would like to, it's just not a reality. If I'm paying somebody money, I have to know that they are going to be able to produce incredibly high quality work. So unless you're very, very cheap and you already have an astonishingly good portfolio, it's not something I can afford.

MICHAEL CARRIER: I would say one of the major reasons why we haven't brought in-- why Zap Dot hasn't brought in any interns right now is for the same reason. I would want to try to pay something, and I've not been able to be in a position where I could bring someone in to give them a specific set of tasks to be able to work, or to have a project that is ready to do research and development.

I think one thing that is great for interns that I'm very interested in is actually having them do prototypes to test ideas that the company has for future plans and to get a good feel for that. Because I think it could encompass lot of things that are great for interns-- being able to have a project, being able to deliver on things, and then also being able to have something that may

have some progress going forward in a project that is released.

JENNA HOSTEIN: That being said, a lot of times, we think about internships as kind of an all or nothing type thing. But a lot of us could use somebody a couple of hours a week to help out with things here or there. So if you genuinely are looking for the experience-- and again, I hate not paying people-- but if you do just want some experience working with an Indie studio and you're willing to give just a couple hours a week, come to Boston Indies. Comes to Boston Unity Group where we're all there. Come talk about the projects you're interested in and where you might be interested in helping.

MICHAEL CARRIER: And those things can turn into paid work as well, as Jenna's intern did.

PROFESSOR: Any last questions? Three or four.

AUDIENCE: So both of you are located at the IGC, but the impression I'm getting is that not all the people you work with are physically in the IGC [INAUDIBLE]. Can we talk about how you balance that? And I guess [INAUDIBLE] the whole communications part of it, but what does that work flow look like with some of your people right next to you and some of those people on Skype?

JENNA HOSTEIN: Go ahead.

MICHAEL CARRIER: Want me to go for that one?

JENNA HOSTEIN: Go ahead.

MICHAEL CARRIER: Many of the projects that I've done have been remote work. When I was doing Dancing With The Stars, that was a bunch of people. So New Hampshire, Oregon and Florida. Jack Lumber was Manitoba, Canada. Then my apartment, and then Alex's apartment as well, before we had the opportunity to work together.

Typically what you need when you're working remotely is, you need a couple of things that are set in stone, essentially. You need a schedule, you need deadlines that people actually make, and you need to make sure that you have the people that are working on those projects be very, very good at time management in the sense that they know they have work to do. They don't necessarily need to have co-workers working around them.

So what you find is, you find a lot of tools being reused. So Google Docs for shared collaboration, Trello for task management, and then Skype for group chats, I think. Or Google-- we've done Google Hangouts as well for different projects. But essentially, having something that allows the team to communicate with each other and knowing what the expectations are throughout the project.

Especially when the contracting work is remote. Like, I'm going to do the work because I want to get paid. I guess it's just a matter of making sure you have really good work ethic and a schedule that you stick to or update as things change.

JENNA HOSTEIN: Yeah, it definitely varies from person to person. But having the right tools to make your life easier is crucial. So I'm on Skype all the time, and I also use BitTorrent Sync, I think is what it's called-- where basically, I have a shared folder with my contractors. Any time they update a file on their computer, it'll be updated on my computer. So it's just a very, very easy way make sure we have the most recently updated files, and don't have to keep renaming them, like, final-- final two-- final, really final. It just keeps all nice and clear.

So having the right tools-- just as a few examples, because that'll probably be easier talk about with Luigi, who is the artist-- we would sit down and talk either in person or on Skype before every new big major task. That made sure that we were both on the right page. We both had a similar thing in our heads, and any design requirements, I was able to specify. He was able to ask questions about some of the things I would forget about. So making sure you have those regular face-to-face check-ins every time you're starting something new is crucial.

Emma, who is my social media guru, works four hours a week and she basically keeps our Twitter and Facebook pages updated. We check in regularly, if there are any sort of campaigns that I want to kick off. But part of the reason I brought her on board is because every time I would sit down with a Twitter account, I'd be like, I have no idea what I'm supposed to say. Like, still working on the game. And so her job is to come up with creative ways to be like, just a reminder, the game is still out there and you should purchase it! In a way, it sounds like something people should be excited about.

So her job really is to work a little bit more independently and come up with that stuff on her own, but then there are some times, like, I totally want to steal this NASA ABCs thing-- and so I'm going to talk to her about it and plan that out and put that together. So she does a lot of independent work, but then any major projects, we check in for that.

MICHAEL CARRIER:	Not steal-- appropriate.
JENNA HOSTEIN:	Borrow. Borrow.
PROFESSOR:	Thank you so much for your time.
JENNA HOSTEIN:	All right. Thank you.
	[APPLAUSE]
PROFESSOR:	You can go ahead and keep the microphone on, just in case. So we've got a five minute break. Come back down here and sign in if you haven't signed in for class yet. They're available to play your games if you are ready for that sort of thing. So if you are, find them, bring them to your computer, and have them play.
MICHAEL CARRIER:	We'll leave a bunch of our business cards up here. If you want to send a portfolio, a resume, just get some feedback, please feel free. I'll answer any email that comes my way.
PROFESSOR:	And I'm going to email this out to them, I haven't done it yet, but there's a party coming up, right?
MICHAEL CARRIER:	Yes.
PROFESSOR:	Can you mention that?
MICHAEL CARRIER:	Yeah. The Indie Game Collective-- there's actually two parties coming up.
PROFESSOR:	Mention both.
MICHAEL CARRIER:	The Indie Game Collective is having a party at the Aeronaut Brewery in Somerville. It's in between Porter and Union. It is on December 11, starts at 5:30, goes until 11:30. It's Thursday, so you'll probably have to leave a little early so you can get to class early on Friday. But the-- ah, no one laughed, even politely.
AUDIENCE:	I think that's after the last day of class.
MICHAEL	Oh, OK. Cool. So the collective is doing a bunch of art and interactive installations. It's games

CARRIER: that are not our own games, but they're just fun things that we wanted to make for the sake of art, not necessarily making money.

Bit Fest Boston will also have 20 old school arcade cabinets there. We will have a funk band and a food truck that has gluten-free, vegan, and non-alcoholic options as well.

On the Monday following, which I think is December 15th, Boston Indies is having their holiday festivus where people will be just playing games. It'll be some local Indies who'll be demoing some games that they've made, but we'll also just be playing really fun games like JS Joust or Hokra. Jenna did an Artemis game last year. So who knows what type of table top or digital games will be there? But it'll be a lot of fun too.

And that's going to be-- that is in the new Bocoup office. Go to bostonindies.com and join the community in terms of finding out more information about that. I'll be sending it out shortly.

PROFESSOR: Thanks. So take five minutes. 2:05, 2:10 we're going to take that thing away. All right?

[CHATTER]