Summary Report:
Building Equitable and Sustainable Game Development Education
Workshop by The First Three Years research team at The Games Institute, University of Waterloo
October 23, 2023

Introduction & Overview

- The First Three Years team provided background information on the study, the reason we embarked on this research, and our recruiting process. We reviewed our three overarching study objectives:
    - Gain insight into what happens in the first 3 years of employment for people entering the game industry (systemic barriers, supportive factors, etc)
    - Understand challenges graduates face in the transition from school to work, with an emphasis on those faced by marginalized populations
    - Assess postsecondary programs' claims that they prepare students for success in the game industry
- We reviewed demographic and experience-related data on the participants enrolled in the study; our preliminary numbers (which are based on the 173 undergraduates in the study) are available in our slide deck.

Discussion

We divided into six breakout groups for further discussion of key themes that have arisen in the research so far. Each group engaged with two of the topics below. The breakout group themes were:

1. Networking & Industry Connections
2. Mirroring Industry Practices
3. Labour Issues in Curriculum
4. Extra-curricular Expectations
5. Experiences of Discrimination
6. Program Promises

This was followed by a full-group discussion which included some broader questions about recommendations for change (see bottom of document).

Networking & Industry Connections

This topic addressed the recurring challenges around networking and industry connections, as exemplified by the two quotes below. Many participants felt that their programs advertised the strength of their connection to industry and promoted networking events, but for many students, these did not lead to tangible connections to folks in industry. Other students indicated that although networking opportunities were sometimes made available, no one ever taught them *how* to network - they didn't really know what that would look like in practice.

Quotes from research participants:
“A good chunk of us don't have the connections that we're maybe hoping for to feel comfortable finding internships or positions by the end of university.”

“Yeah. It's about as ideal as that whole situation could have gone, because I felt like I just kind of stumbled into the workplace. I don't know. It's one of the things that you have to attribute to some degree of luck, because I know many people who are very talented and having trouble finding jobs. I was in all the right spots at the right time.”

Comments from discussion:

- These issues are highly location dependent - students at schools in some areas will have very different experiences of networking depending on how close their school is (geographically or in terms of relationship) to studios
    - Programs in geographically isolated areas (like islands) struggle to build an ‘incubator’ model, but host things like award ceremonies with industry juries as a means to bridge the gap
    - Some regions have lots of indie to offer but no AAA connections
- Some schools employ a highly entrepreneurial focus to encourage their students to start their own companies; this might lead to more learning about the logistics of networking than in programs that are oriented towards working in a pre-established studio
- An issue related to soft power (of faculty), ability to make and sustain connections
    - One participant noted that they often leveraged their personal networks to bring in friends to represent the industry, which are not sustainable, and the educators’ own connections may be limited especially if they’re not from industry
- Some programs lack built-in connections, students need to be extremely proactive to connect to industry. One participant noted their efforts to build partnerships in a major game hub city were hindered by reticence of game companies to build long-term relationships with academic researchers & lab partnerships
    - Another participant noted the challenges of connecting to industry, and highlighted a campus incubator as a way to bring in alumni and industry as speakers.
    - One institution was investigating whether a faculty member could get a teaching release to spend time as an industry liaison for the program
    - Industry partnerships are usually more transactional than organic, and may be on a one-off basis. Sustaining these relationships requires a ‘champion’ to be on the ball
- A participant noted that events like ‘networking over beers’ excluded many who feel uncomfortable/at risk in those spaces, people who are comfortable participating in such events might not be from as diverse backgrounds as those who don’t attend
- International programs tend to draw people from many different backgrounds but they’re not always favored in game communities

- Use of events like Alumni days to build direct connections
- Students may learn to pitch in their programs, but this sometimes comes into conflict with academic evaluations, and is costly. It may help students decide where to work, but the program doesn't have data to support this
- Some participants had shifted to more remote teaching even prior to the pandemic, which has allowed them to continue to have professionals teach remotely as much as possible, which they felt increased students' employability
    - But some alumni/industry professionals have had to cancel talks due to incidents at their companies receiving press coverage; some censorship by companies of freedom of employees to speak.
- A participant from Europe noted that in their country's vocational training schools, there is a strong connection to industry that feeds into the job pipeline, but there are many more universities that do not all have those connections
- Note on the need for more mentors and teachers that aren't male, to help foster different types of connections and mentorships, some disciplines are further in this regard than others.
- One program previously had a course for building a portfolio website that was eliminated; student websites were hurting their chances at being hired, they didn't know how to brand themselves
- Use of scaffolded portfolio courses, with one portfolio needed to get into the course, then an exit portfolio which they add to over coursework. Networking training was built into that process

Mirroring Industry Practices

Many game design programs set themselves up with an intention of creating a 'realistic' studio design experience, particularly if they offered a capstone or similar larger-scale game design experience in the final year of the program. This often included things like using Agile, encouraging teams of students to set up internal mini-studio structures, and setting expectations for a very fast-paced development cycle concluding in a polished product. This was an area that students were very split on - some were grateful to get what they saw as a realistic view of what game development is really like, and felt that it prepared them well to enter industry, or as we see in the first quote, that it led students who couldn't handle that pace of work to drop out of the program. Others felt that it had a negative impact on their mental health and well-being, and that it could lead to burnout.

Quotes from research participants:

"Well, I think most students are kind of prepared for a heavy, heavy workload. Because if you can't, if you can't deal with it in the first year, first term, you drop out. That's the highest dropout rate is the first term of first year, because a lot of people just can't deal with it."

"There's almost a tendency as part of the culture to get students to overwork, to sort of burn students out before they have a chance to actually get a job and enter the industry. Professional conditions are not dissimilar, but at the same time, at least you're making money. Here, you're

paying money to essentially do the same."

Comments from discussion:

- Participants were all interested in the question of how the university sells expectations to students, and how this informs the design of programs around a presumed Triple A studio career, one that is seen as the only route for those who love to make games. One of our tasks as educators is to provide a reality check but also inspiration for alternative positions and how this isn't a failure, how they can also be stepping stones too. Everyone was very enthusiastic about using lo-fi tech like Twine, in both game studies and game production, to challenge expectations and foster new imaginaries around design.
- There was also a lot of enthusiasm for teaching students about unionization and alternative working practices like co-ops, which is where this work was cited as useful for reaching students: https://gameartsinternational.network/if-you-dont-like-the-game-change-the-rules/
- But there was also the sense that one-off courses about exploitation and exclusion were not sufficient, we need to integrate the conversation into all courses e.g. the importance of moral support to mitigate against burnout in courses about the design process. Curriculum in games programs needs to connect students and their lives to what happens in the industry concretely - talking about mental health can be productive for this. Also integrating programs with local groups and nonprofits focused on advocacy was seen as a good practice so as not to model the competitive environment of games in the course - this is seen as a major problem with how games are currently framed: "can you hack it?"; "if you didn't make it, you didn't want it enough", a framing where the individual is a failure, not the system itself.
- Participants noted that students right now seem committed to a 'corporate identity', which leads to the question of 'how can we foster a different subjectivity in games?' and move away from the discourses about doing it because of a 'passion for games'. Participants identified a few 'stealth' modes of pushing back against this perspective: Rapid iteration is one practice, another is collaborations with other programs eg. critical theory courses
- One educator uses role-play to talk about industry, in a range of classes, and we talked about how the new generation of students may be more amenable to notions that "the job won't love you back" e.g. maybe some Marxist thought embedded in the degree, the idea that you can make games outside the machine!
- Some noted the 'false promise' of working hard when the rewards aren't really available
- "Melt" described the expected dropout of a lot of students, particularly in the first year of their program
- Crunch was discussed as a potential byproduct of passion, and some wondered if it should be up to students to prevent crunch themselves (eg. by project structure)
- **Capstone-specific ideas:**
    - Some institutions have explicit scoping that limits to 3 hrs/week per credit to constrain project size
    - Capstones could employ industry mentorship in the project, helps build connection and helps students scope, approach realistically
    - Some programs use a 'junior capstone' as a means of laddering up to the major capstone project

- ‘Vertical studios’ used as a means to build community in the program and pass it on, giving upperclassmen a stake in the projects of the capstones

Labour Issues in Curriculum

We asked our participants if, and how, their programs talked about contemporary labour issues in games, and got a lot of different answers. In some programs, topics like working conditions, negotiating for yourself, unionization, and discrimination in the workplace were only addressed indirectly. In other programs, they might be tackled head on, or mentioned as something that happens but not really presented alongside solutions. Almost always, students were talking about things they heard in the news amongst themselves - almost every student we spoke to was familiar with the lawsuits filed against Blizzard Activision, for example, but many mostly knew about it in the context of discussions with their peers.

Quotes from research participants:

“I feel like the university has only ever actually talked about crunch specifically happening at a workplace. And they've really not offered a solution. They've just said, brace yourself for it. You don't really get to negotiate on your contract, and there’s no crunch until you've gotten a few years of experience on your belt. They gave us a few sort of fleeting little pieces of advice on how you can try and see if your company that you're applying to might be guilty of putting employees to crunch. So maybe you can try to avoid applying to them. But other than that, there hasn't really been any talk of it whatsoever.”

“Our professor was telling us at the time that you're gonna get screwed no matter what. But it's just, how are you going to take advantage of that opportunity.”

Comments from discussion:

- One participant described how their institution adjusted the awards ceremonies to reduce competitive approaches, instead celebrating games in any state of completion at the end of the year. Reduces the focus on ‘end project’ and encourages more collaboration between students/teams
- Some programs discussed crunch, framing it in terms of how it works differently in different disciplines, and situating its relationship to diversity. We noted the problematic of the “courtesy warning”: ‘just so you know, this is what it will be like, but we’re not changing it’ approach
- Some programs put labour issues front and center, with students taking mandatory classes on social justice and leadership, and ethics in games; the program is always set in this orientation
- Implementation of game jam models that are collaborative rather than competitive, with limitations on crunch-style development
- An emphasis in program design on planning and project design to avoid crunch, the use of milestones and scoping to keep it down
- Group projects with reflective elements, that treat student experiences as useful data
- Use of practical tools like activity theory, pomodoro methods, etc., to manage workloads

- Guest speakers can be a good way to bring a realistic preview to students because professors who have been away from the industry for a time, or never worked in industry, are not equipped to speak to this. However, guest speakers are also limited by what their company's allow them to say and they can feel vulnerable too.
- Some felt that the labour issue could be or should be framed more philosophically, "Does it have to be this way" as a challenge to the message of inevitability that seems common. However, many felt that there is not much a professor can do on the change front and there is a hesitancy to advocate to students to "be the change" because that is risky.
- Some wanted more research and data, noted that the game industry is not entirely unique in the long hours culture or even with discrimination, and asked for information about how other industries handle it or have made progress
- Discussion about whether it is better to have one course focused on topics like this (i.e., Engineering programs have an ethics course) or whether topics should be integrated across the curriculum and appear in all classes; concern that many students 'tune out'

Extra-curricular Expectations

A really interesting thing we heard from many of our participants was that their programs, prospective employers, and/or peers were telling them that the projects they were doing for their programs were not the things that were going to get them a job. There was a strong emphasis on the need to work on your own game projects on the side, participating in game jams, and adding additional things to the portfolio. Paired with this was a common perception that employers were not interested in looking at 'school projects' on a portfolio. There was also a recurring trend of students in different disciplines rating the usefulness of student projects for creating portfolio pieces - artists, for example, felt that they never really got assets in a class game project up to a high enough level of polish to include in a portfolio, whereas programming students would be more comfortable showcasing the final product. This presents obvious equity issues, where students who need to work during school are less likely to be able to spend time on portfolio-supporting projects outside their school workload.

Quotes from research participants:

"Some universal tips I think would just be don't bother over dedicating yourself to the end of your program. Basically everything in your program probably won't matter, and the degree itself is just a title. What actually matters is the skills you have and if you don't have those skills, you won't get a job. So if you can be working on those skills, those are the most important. Your classwork comes second, and your degree and your classwork is not what's going to get you jobs. It's going to be the skills you have."

"One of the big things I think preventing me from actually buffing up my resume or doing personal projects has been me getting a retail job just to help pay the bills around my house."

Comments from discussion:

- One participant shared that in terms of finding a job, 20% of your 'value' comes from school and the rest from work experience - if you have 0% experience you are very disadvantaged, but it is not normative for schools to say that (they prop up their program)

Experiences of Discrimination

Discrimination came up along two axes in the interviews: on the one hand was experiences of discrimination inside academic programs. Here, we had very mixed reports - some people loved their programs and felt that it was a very supportive space, where they hadn't really experienced any discrimination on the basis of their identities. But other folks did describe programs where harassment occurred, where gender minorities and racialized folks tended to be spoken over, and in these cases there was a big range in how effective the programs and instructors were in intervening. And the other side was if and how the program talked about discrimination in the workplace. Another really interesting trend was how white cisgender men talked about discrimination in games - some people approached it from an allyship perspective, saying it was important to learn about it and how they could help support other people, but there was also a subset of students that basically said, 'well, it doesn't affect me, so I'm not too worried about it'. We also heard that instructors who were white men also sometimes seemed uncomfortable talking about discrimination and tended to skirt around the topic.

Quotes from research participants:

"There's a lot wrong, and it's pretty concerning. As a woman and a woman of color, I'm a little nervous. I won't lie. I'm a little nervous about going into the industry, that's we're still having problems like this, and not being heard by HR. Maybe one of the reasons why indie is worthwhile is because you're in a smaller knit company. So you have to face everyone in the end, instead of like, this mysterious corporate head in AAA. I've definitely experienced it, but I've been very supported by my peers. And I feel like I'm a very respected student in the school. But that doesn't mean I haven't had my handful of situations where my experience and knowledge wasn't trusted because I was a woman or a woman of color. But a lot of those situations, I felt like I got the support I needed in the end, like when I expressed my concerns to my teammates."

"We didn't get as much into the discrimination side of it. I am a white guy. I don't really know how else to word that. Obviously, that shit shouldn't be anywhere near anything. But I'm also not going to deal with it for the most part."

Comments from discussion:

- It's important to talk about exclusion but also important is <u>how</u> it's talked about. Participants noted the need to give concrete, actionable paths to take, to give students a sense of agency
- People noted the growing trend of hiring based on EDI (equity, diversity, and inclusion) criteria
- Having a more diverse student body part of how programs engage with this
- Having a greater diversity of faculty not just in terms of demographics, but also philosophy, approaches to problem solving, etc., a means of increasing the range of

perspectives (and options) available to students
- Having faculty who are experienced with issues of identity and representation in the industry to help facilitate these conversations

Program Promises

In general in games programs, there is a tendency to promote things like high post-graduation employment rates, the high-profile companies that graduates have gotten jobs with, the industry experience of faculty, the promise of internships, and the general suggestion of a career in the 'lucrative and fast-growing game industry'. A recurring theme in a minority of game programs was a sense among students that the program had promised them outcomes that it wasn't necessarily delivering on. These might be part of the recruiting package presented for the program, such as in the first quote where a program website states that 50% of students would have work in the first year, and the other half within three years. We heard from a lot of students that they chose their program specifically because of the program's close connection to a particular company or industry hub, and they were frustrated when that connection didn't prove to be as close as they expected.

Quotes from research participants:

"It's definitely on their website where I think they guaranteed at least half of us would have work in the first year. The other half of us would probably get work within the next, like maybe three years. So I was like, "Okay, it's a 50/50. If I don't make it in that first 50, I'll definitely be in the other 50." So I'm like, "Okay, well, I guess I'm in the other 50." But that number has definitely been greatly skewed as far as I've heard. I've heard peers in school talk that the website numbers were definitely boosted higher than they should have been. So I'm not surprised."

"I don't think it wasn't a very accurate picture. I think I would attribute that to the lack of experience within the faculty because a lot of the people who are teaching are people who, to be honest, haven't really worked extensively in games. We don't have anyone in staff who's an ex Rockstar dev. It's just people who either do not really have a lot of games experience or who have dabbled in it a little and have seen a little bit of success, but nothing really remarkable. And I think that ends up kind of just culturing this very inaccurate representation of what games actually are. They don't show us where the industry bar is, you have to figure that out yourself and realize that what we're doing is not industry tier stuff."

Comments from discussion:
- Some participants noted that building and maintaining connections with folks currently in the game industry was a way to keep programs timely and relevant
- Some programs are using anecdotal tracking to see where their students end up; the university sometimes promises it will dedicate resources but it isn't a reliable source. Many programs rely on student/alumni Discord servers to have a sense of where grads end up

- The student mindset has become very pragmatic and oriented towards coming out with a job, some programs are designed to target this approach (eg. co-op model). May be beneficial to be very explicit about what 'kind' of industry your program is oriented towards
- Discussion about entrepreneurship-emphasis programs and the benefits/challenges of same; one participant indicated their program had moved these to the earlier part of the program so students were more supported throughout and had the mindset early.
    - Related use of entrepreneurship-focused mentorship as a way to improve post-grad outcomes
- Importance of adjusting the promises of the program to match what is actually happening in it, and same for skills development
- Recognition that a co-op or internship is not enough on its own - emphasis on the need to build a learning and reflection culture around these practical experiences - build scaffolding into which to place the practical experience: students can debrief their experiences collectively, share reports to their class and instructor, engage in pre and post exit interviews or surveys about their experiences, engage in thinking about how their experiences connect (or don't) with the curriculum taught
- Instructors felt that there was not a lot of time to deliver a realistic job preview of every job/job area in a potential studio - there are a lot of careers and students will only get exposed to the most common types (job and studio)
- In order to deliver on the jobs promise, at the graduate level there was an identified need for space and time to network with other researchers, instructors and alumni; people got jobs through research networks so these can be important as well as practical industry experience; desire for physical spaces to connect people (3rd spaces)
    - Note that the GI is this at Waterloo
    - Note that Toronto and GTA college programs have very strong events and connections - in the college sector there is more collaboration with industry where the industry has invested in the design of the programs (i.e., Ubisoft and Sherdian) whereas universities hold themselves more separate and are decentralized
    - Note that smaller schools and more rural schools with more mixed demographics suffer most from not having a game industry hub nearby

Recommendations for Change

We provided some guiding questions for recommendations, as follows:

1. Thinking of your own institution, if they have a game program or were launching one, what recommendations might you make?
    - “For new programs, I suggest to determine what resources you have and what type of student you can really support creating and don't spread yourself too thin (don't try to be all things to all people).”
    - “We ran a game jam last week, in which all Game classes were suspended for a week, and students were expected to spend ONLY the… Credit hour (i.e. 9 hours per game class) on the jam”
    - “We don't give awards from our Jams, as we have students collaborate between groups instead of compete. We also shut the Jams down at a reasonable hour and tell people to rest.”

2. How can programs center improving equity and access for marginalized students?
    - Diversity in all respects – have various backgrounds and perspectives among faculty.
    - For equity, it's a lifelong commitment to making a space where diverse voices belong and feel comfortable to be themselves. While full time faculty diversity can be slow to change, contingent faculty can change more frequently to bring in greater diversity.
    - A question of whether it’s really serving equity to increase the ‘pipeline’ so that even more people end up in the meatgrinder of the industry
    - Unionization was raised as a means to make the environment between for everyone. Explicitly teaching students about unionization as a broader commitment to equity
    - Changing the ethos that “you only make it if you want it enough”, which conditions students to be treated poorly as the norm

3. What question would you want to ask your graduates a year after they finish your program?
    - “I ask my graduates what class (or other thing we do) was most helpful for them, and what class (or other thing) was missing”
    - Are you still making games?
    - Ongoing feedback processes with students all the time

General Comments

- Schools in locations far from a ‘gaming industry hub’ had unique challenges around geography. They also noted differences in demographics and disciplines - where computer science students are not particularly concerned about finding employment because their skills are transferable to many industries.

- We noted a trend that how a game program functions tends to be related to its origin story; the way that a game program is set up in the institution, and what factors lead to its creation, can be a big determinant in its orientation towards industry, different disciplines, etc.

If you have questions about The First Three Years or would like to follow up on an aspect of this workshop or our work in general, you can visit our website https://first3yearsproject.com/ or email us at fty@ualberta.ca.