The Industry
A Changing Industry

• The game industry is rapidly changing
  • AAA studios are contracting/cutting back
  • MOBA and mobile studios have plateaued
  • Battle Royale is still seeing some growth

• It is harder for Indie Games to break out
  • Indie sales peaked around 2014 or so
  • Now supply has far out-stripped demand

• Focus: Understanding the trade-offs here
Market by Platform

2018 GLOBAL GAMES MARKET
PER DEVICE & SEGMENT WITH YEAR-ON-YEAR GROWTH RATES

MOBILE
$70.3Bn
+25.5% YoY

TABLET GAMES
$13.9Bn
+13.1% YoY

(SMART)PHONE GAMES
$56.4Bn
+29.0% YoY

PC
$32.9Bn
+1.6% YoY

BROWSER PC GAMES
$4.3Bn
-13.9% YoY

BOXED/DOWNLOADED PC GAMES
$28.6Bn
+4.5% YoY

CONSOLE
$34.6Bn
+4.1% YoY

2018 TOTAL
$137.9Bn
+13.3% YoY

Source: ©Newzoo | April 2018 Quarterly Update | Global Games Market Report
newzoo.com/globalgamesreport
Market by Platform

2012-2021 GLOBAL GAMES MARKET
REVENUES PER SEGMENT 2012-2021 WITH COMPOUND ANNUAL GROWTH RATES

Mobile Games  PC Games  Console Games

CAGR 2012-2021
TOTAL +11.0%

MOBILE +26.8%

PC +11.0%

CONSOLE +11.0%

Source: ©Newzoo | April 2018 Quarterly Update | Global Games Market Report
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Market by Region

2018 GLOBAL GAMES MARKET
PER REGION WITH YEAR-ON-YEAR GROWTH RATES

EUROPE, MIDDLE-EAST & AFRICA
$28.7Bn
+8.8% YoY
21%

LATIN AMERICA
$5.0Bn
+13.5% YoY
4%

NORTH AMERICA
$32.7Bn
+10.0% YoY
23%

CHINA TOTAL
$37.9Bn
52%

ASIA-PACIFIC
$71.4Bn
+16.8% YoY

2018 TOTAL
$137.9Bn
+13.3% YoY

Source: ©Newzoo | April 2018 Quarterly Update | Global Games Market Report
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**Classic Industry Roles**

- **Developers** make the games
  - Core studio of salaried people
  - Hire freelancers as deadlines approach

- **Publishers** distribute the games
  - Get the games into the retail chain
  - Advertise the game to customers
  - **Give developers advances to pay salaries**

- **Console Developers** make game platforms
  - Publishers license to publish games for platform
  - In AAA space, limits profit on a $60 game to $30
Talk Outline

- **Types of Developers**
  - How they publish; how they are funded
  - Limited to North America

- **Breaking in to the Industry**
  - Some sobering facts
  - How to prepare yourself

- **Going it Alone**
  - The modern start-up culture
  - Important indie resources
First Party Developers

- Make **hardware platforms**
- In-house studio for platform
- Help drive the platform
- Often make “launch” titles
First Party Developers

- **Nintendo**: Mario
- **Sony**: God of War
- **Microsoft**: Halo
  - Microsoft strategy changes
3rd Party Developer-Publishers

- Large public corporations
- Many development studios
- Multiplatform development
- Many concurrent projects

**Advantage**: deep pockets
- Constantly shipping titles
- Current titles bring revenue
- Use to fund new projects
- Can support *large* teams
3rd Party Developer-Publishers

- Activision-Blizzard
  - Modern Warfare, WoW
- EA
  - Madden, Battlefield
- Ubisoft
  - Assassin’s Creed
- Take-Two
  - Grand Theft Auto
Independent Developers

- Mainly work on other IP
- Lots of ports/some licenses
- “Developers-for-Hire”
- Building cash for own IP

- Often work in parallel
- X days/week on contract
- Y days/week on own IP
- But keep finances *separate*!

- Some financed startups
- But not really anymore
Independent Developers

- **Moon Studios**
  - Ori and the Blind Forest

- **Playdead**
  - Limbo, Inside

- **Capybara Games**
  - Below, Super Brothers

- **Finji**
  - Night in the Woods
Established Independent Developers

- Work with major publishers
  - Both first and third party
  - Often get acquired by them

- Or publish non-traditionally
  - Digital Distribution (Steam)
  - Or served online (MOBAs)

- Few concurrent projects
  - Publishers control money
  - A game away from closing

- Hardcore credibility
Established Independent Developers

- **Bethesda**
  - Fallout 3, Skyrim

- **Bungie**
  - Halo, Destiny

- **Respawn**
  - Titanfall

- **Riot**
  - League of Legends
Mobile Developer/Publishers

- Make games very rapidly
- Smaller games
- Smaller teams (<10)
- Short development cycles
- But sometimes take longer
  - Identify IP as a major hit
  - Use other titles to fund it
  - **Example:** EA/Popcap
- Much consolidation in recent years
Mobile Developer/Publishers

- **Supercell**
  - Clash of Clans

- **Pocket Gems**
  - War Dragons, Episode

- **Niantic Labs**
  - Pokemon GO

- **Fireproof Games**
  - The Room Series

- **Also EA, Ubisoft**
“Indie” Developers & Guys at Computers

- Original Properties
  - Everything is your own IP
  - Often unusual gameplay
  - Similar to this course

- Very informal cultures
  - Entirely digital distribution
  - Get credibility at festivals

- Paycheck not guaranteed
  - Don’t quit your day job
  - Kickstarter?
“Indie” Developers & Guys at Computers

- Jonathon Blow
  - Braid, Witness

- ThatGameCompany
  - Fl0w, Flower

- Team Meat
  - Super Meat Boy

- Spiderweb Software
  - Avernum, Avadon

- Many iOS Developers
“Indie” Developers & Guys at Computers

- Jonathon Blow
  - Braid, Witness
- ThatGameCompany

Essentially “Start-Ups”

- Super Meat Boy
- Spiderweb Software
  - Avernum, Avadon
- Many iOS Developers
Hybrid Game Developers

- Mixes traditional and digital
- Digital board game
- Digital add-ons
- Sometimes AR features

- Extension of mobile market
- Typically mobile/tablet
- Needs to be in obtrusive

- Overlooked but growing!
- Often not part of job search
- Need mobile experience
Hybrid Game Developers

- Fantasy Flight Games
  - Mansions of Madness
  - XCOM: The Board Game
  - KeyForged

- Wizards of the Coast
  - D&D Beyond
  - Magic Arena

- JackBox Games
  - Quiplash
  - Fibbage
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Some Reality Checks

- Do you *really* want to get into the industry?
  - Salaries are MUCH lower than industrial average
  - Crunch time = lots of unpaid overtime
  - AAA space is still shrinking (because of costs)
- Average “life span” of developer is 5 years
  - After that, promoted up or out
  - Says something about stress in industry
- Might be happier at Google, Facebook, etc.
Some Reality Checks

- Do you *really* want to get into the industry?
  - Salaries are **MUCH** lower than industrial average
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  - Says something about stress in industry

- More likely a *job* than a *career*

- Might be happier at Google, Facebook, etc.
On the Other Hand

- Some people love all this
  - Creative process > money
  - Would work hard anyway

- Top developers do well
  - Build up lots of experience
  - Leave to found own studio
  - High profile kickstarters

- But you must have passion
  - Too much competition now
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- Too much competition now

On the Other Hand

Until you get middle aged
More Reality Checks

• As with many jobs, intern experience is key
  • Work on a title between junior & senior year

• But internships are cutting back
  • EA used to be great at training ... and collapsed in 2008
  • Zynga hired their recruiting staff … and then collapsed
  • Riot picked up the internship slack … and then over-hired

• It is an incredibly competitive landscape
  • Lots of game programs with cheap talent
  • Application has to have a hook to get noticed
More Reality Checks

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- But internships are cutting back
  - EA used to be great
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- Epic is the current company dujour

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Internships: Established Studios

- Search early in year with recruiting team
  - Application process is usually very competitive
  - Check the company website regularly
  - Starts **online** with later **site interview**

- The goal is to teach and train students
  - Structured learning environment to ease you in
  - Hopes you come on for full-time after graduation
  - In the past, would offer job at end of internship
Internships: Indep. AAA Studios

- Searches later in year with one, two recruiters
  - Positions are not advertised outside their site
  - Application process is usually much easier
- Goal is to get cheap labor to push a title to ship
  - You will get thrown into the mix immediately
  - Will be treated exactly like a full-time
  - Hands-on experience and credit for a shipped title
- Future job and other factors depends on the studio
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Preparing Yourself

• Build **professional skills**
  • **Programmers**: C++, Objective C, Unity 3D
  • **Designers**: Maya, 3D Studio Max, Unity 3D

• Build a **portfolio**
  • Make lots of games (even outside of class)
  • Distribute them or take them to festivals

• Become an **expert** in related area
  • **Programmers**: graphics, AI, networking
  • **Designers**: UI design, animation, concept art
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Becoming an Indie Developer

- You need a (somewhat) finished **game**
  - CS 4152 project (or an independent study)
  - Much more polished than just one semester

- You need a **publishing platform**
  - **App Store**: Acceptance is easy; marketing is hard
  - **Steam**: No longer different from App Store

- You need to **market** your game
  - Showcase your game at festivals
  - Reach out to the gaming press
Becoming an Indie Developer

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**You cannot ignore this!**
Game Festivals

- Similar to a film festival
  - Submit game for judging
  - A jury plays your game
  - Selects games for event

- **Goal**: Pre-launch hype
  - Get press to see your game
  - Release early builds to press

- Critical to success
  - You are only “new” once
  - Initial sales are key
  - Hard to rescue a bad launch

**Examples**

- Independent Game Festival
  - Extremely competitive
  - But has a student track

- Boston Indie Game Festival
  - Easier for east coast schools
  - Accepts more games

- IndieCade
  - Focuses on “arty” games

- Other lesser festivals
What About Kickstarter?

- Not for new developers!
  - Team with established record
  - Media with existing platform (e.g. webcomics)
  - Everyone else usually fails
- Failure has consequences
  - Known as the “Failed Kickstarter”
  - Kickstarter does not remove pages
  - Can recover, but need new project
- New developers need a “day job”
Alternative: Kessler Fellows

- Internal Cornell award to help entrepreneurship
  - Funds your work at a start-up company
  - So you are a (legal) unpaid intern for company
  - But they have to agree to take you on
- The fellowship is very competitive
  - Have to prove that you are an entrepreneur
  - Start with indie route; leverage for fellowship
- Example: John Austin from Apsis
Support Beyond CS/INFO 3152

- **CS/INFO 4152**
  - Capstone course: take more advanced courses
  - Requires game to be more advanced in some way

- **CS 4999**
  - Often sponsor two projects a semester
  - Take competitive proposals at semester start

- **Digital Gaming Alliance**
  - Student club to support game designers
Useful CS and Info Courses

- For programmers
  - CS 4620: Introduction to Computer Graphics
  - CS 5625: Interactive Computer Graphics
  - CS 4700: Foundations of Artificial Intelligence
  - CS 4758: Robot Learning
  - CS 5414: Distributed Computing

- For designers
  - Info 3450: Human Computer Interaction Design
  - Info 4400: Advanced HCI Design
  - And many more