
the
gamedesigninitiative
at cornell university

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

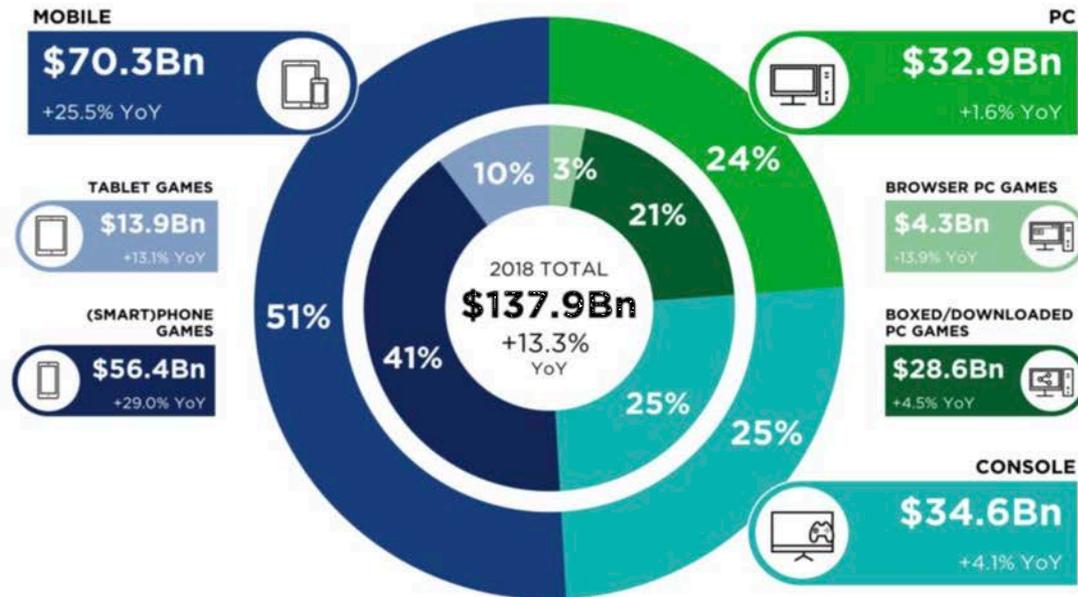
Market by Platform



2018 GLOBAL GAMES MARKET

PER DEVICE & SEGMENT WITH YEAR-ON-YEAR GROWTH RATES

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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



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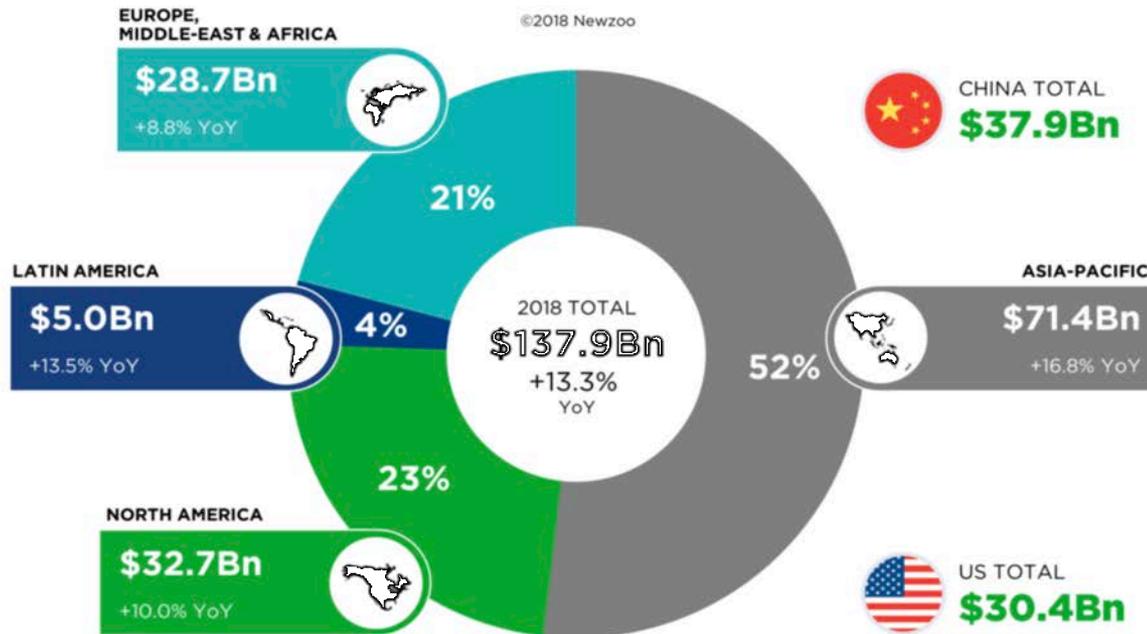


Market by Region



2018 GLOBAL GAMES MARKET

PER REGION WITH YEAR-ON-YEAR GROWTH RATES



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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



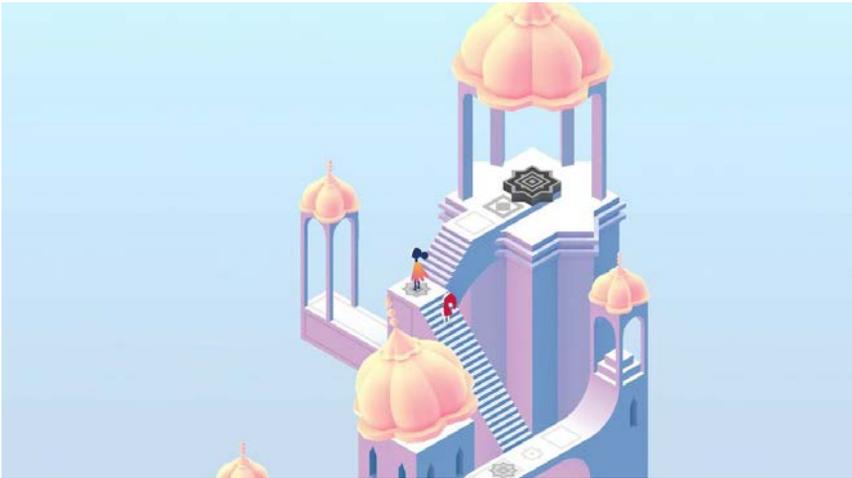
- Work with major publishers
 - Both first and third party
 - Often get acquired by them
- Or publish non-traditionally
 - Digital Distribution (Steam)
 - Or served online (MOBAs)
- Few concurrent projects
 - Publishers control money
 - A game away from closing
- Hardcore credibility

Established Independent Developers



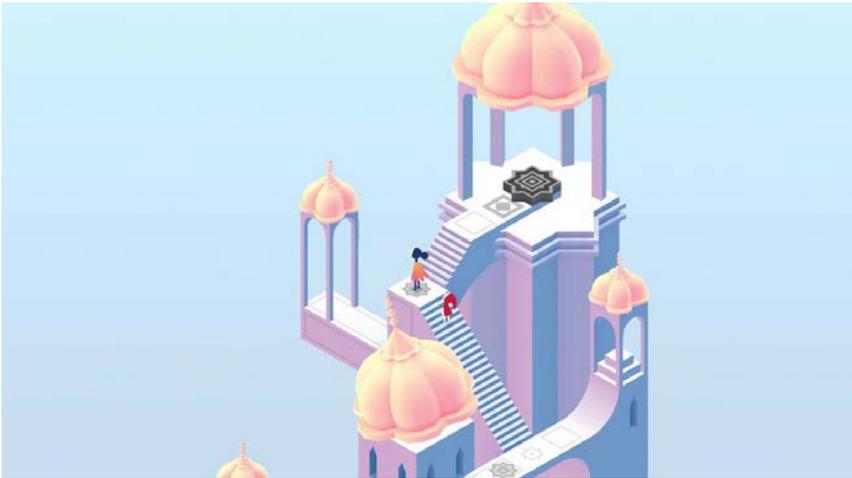
- **Bethesda**
 - Fallout 3, Skyrim
- **Bungie**
 - Halo, Destiny
- **Respawn**
 - Titanfall
- **Riot**
 - League of Legends

Mobile Developer/Publishers



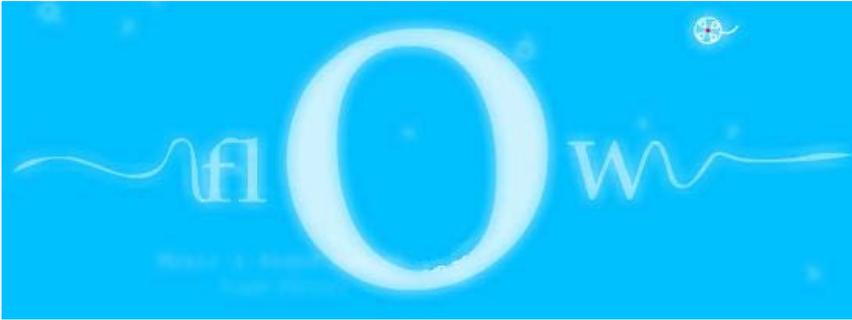
- Make games very rapidly
 - Smaller games
 - Smaller teams (<10)
 - Short development cycles
- But sometimes take longer
 - Identify IP as a major hit
 - Use other titles to fund it
 - **Example:** EA/Popcap
- Much consolidation in recent years

Mobile Developer/Publishers



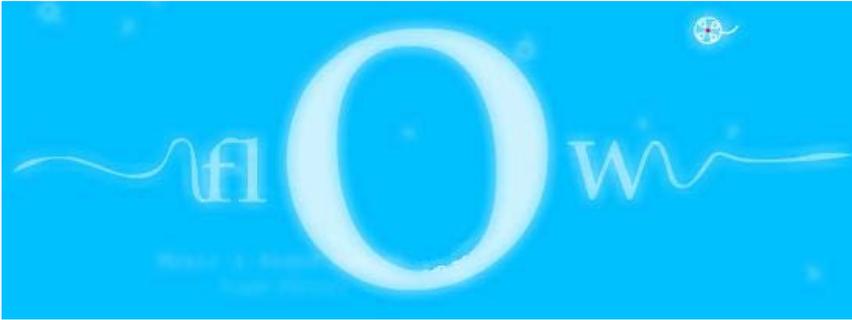
- **Supercell**
 - Clash of Clans
- **Pocket Gems**
 - War Dragons, Episode
- **Niantic Labs**
 - Pokemon GO
- **Fireproof Games**
 - The Room Series
- Also **EA, Ubisoft**

“Indie” Developers & Guys at Computers



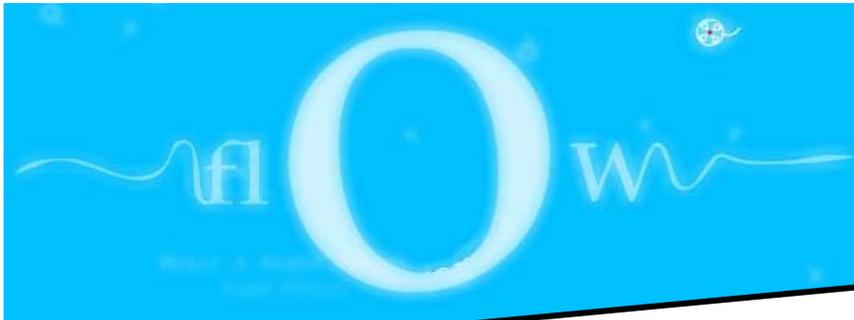
- Original Properties
 - Everything is your own IP
 - Often unusual gameplay
 - Similar to this course
- Very informal cultures
 - Entirely digital distribution
 - Get credibility at festivals
- Paycheck not guaranteed
 - Don't quit your day job
 - **Kickstarter?**

“Indie” Developers & Guys at Computers



- **Jonathon Blow**
 - Braid, Witness
- **ThatGameCompany**
 - Flow, 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
 - Crunch time = lots of unpaid overtime
 - AAA space is still (ies)
- Average developer is 5 years
 - More likely a *job* than a *career*
 - After that, promoted up or out
 - Says something about stress in industry
- 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



On the Other Hand

- Some people love all this

Until you get middle aged

- Top developers do well
 - Build up lots of experience
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- But you must have **passion**
 - Too much competition now



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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 - Work on a title between junior & senior year
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 - EA used to be great
 - **Epic** is the current company dujour
 - ... internship slack ... **and then over-hired**
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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

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 into a AAA studio to ship
 - You will be paid a stipend 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

gamedevmap.com

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

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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