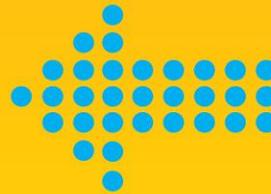




entertainment
software
association

California State Assembly

Committee on Arts, Entertainment, Sports,
Tourism and Internet Media



Video Games: The Quintessential California Industry

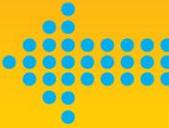
Erik V. Huey

Senior Vice President of Government Affairs
Entertainment Software Association

August 21, 2015

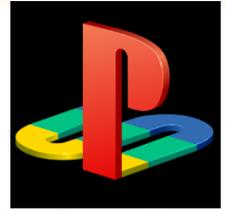


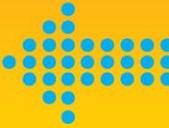
The Entertainment Software Association



Serves business and public affairs needs of U.S. computer and video game publishers

- 34 member companies
- Activities include:
 - Business and consumer research
 - Government relations
 - Legal and policy advocacy
 - Global anti-piracy program
 - Domestic and international IP policy
 - Technology policy
- Also operates E3, Video Game Impact, Video Game Voters Network, ESA Foundation

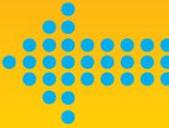




E3 2015

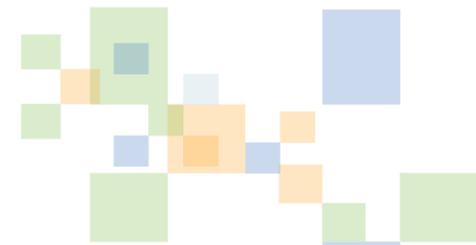
- Generated more than \$40 million for Los Angeles
- 6,500 hotel rooms on peak
- 52,200 attendees
- 300 exhibitors
- Media
 - More than 60 billion media impressions generated
 - More than 4,000 journalists attended

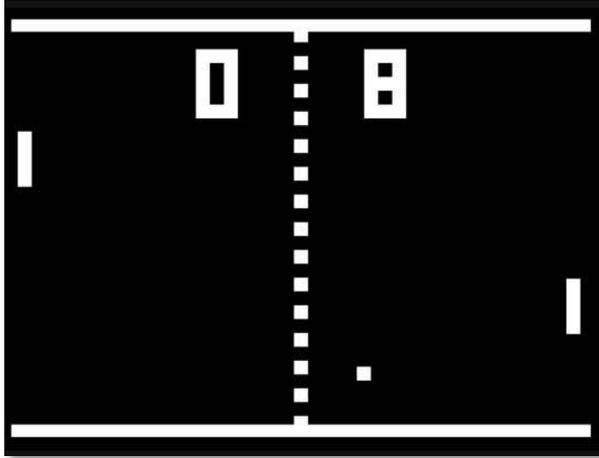
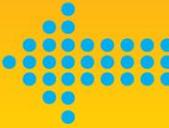




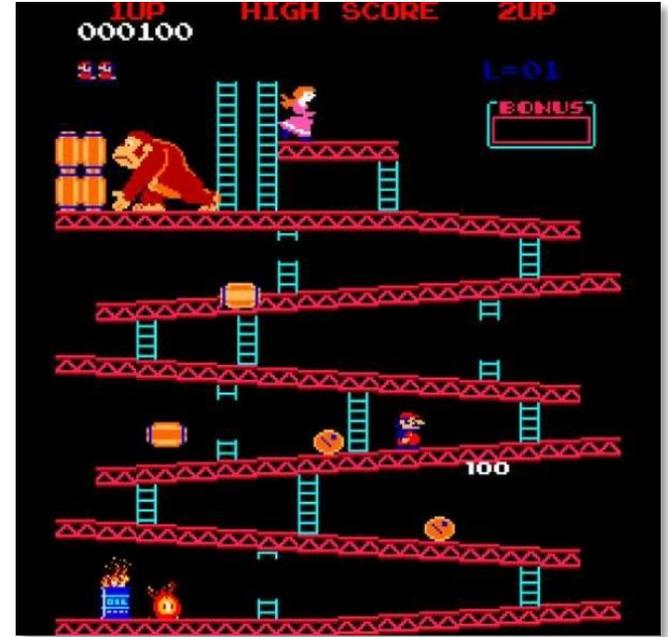
Enhanced Consumer Engagement

- On Twitch, more than 21 million people watched E3
- More than 1 million E3 videos posted on YouTube
- 6.3 million tweets with #E3
- 50 unique E3 topics trended worldwide and in the U.S. on Twitter
- More than 7.5 million Instagram “likes”

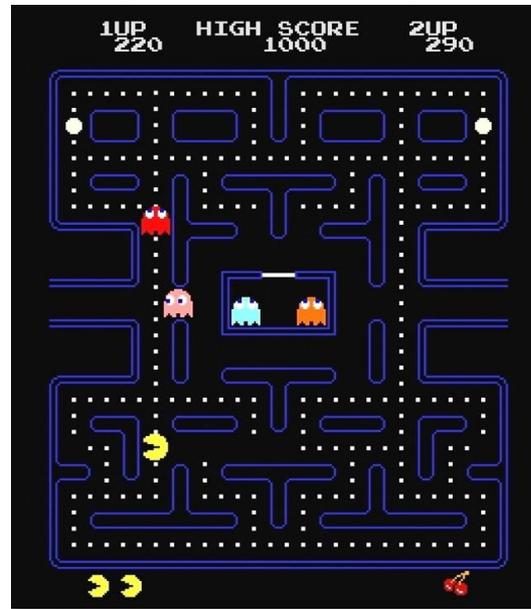




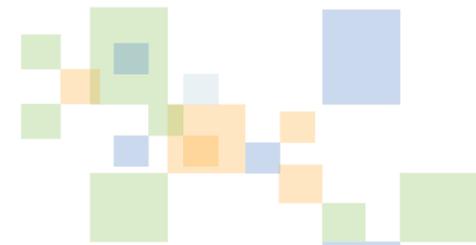
1972



1981



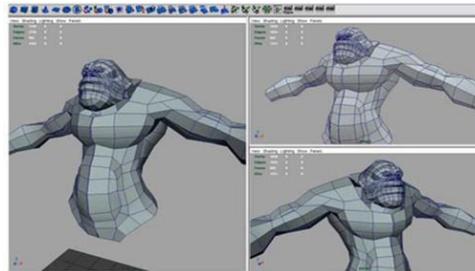
1980



How Video Games are Made

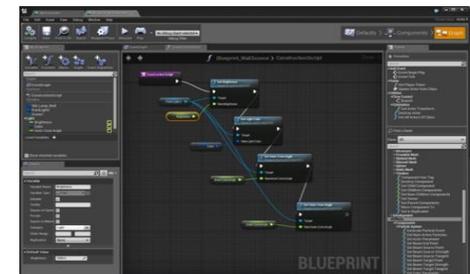


- Creating a modern game is similar to creating a blockbuster movie in terms of how it's made, time, cost, and scope
- Designers, actors, musicians, artists, and more are all used



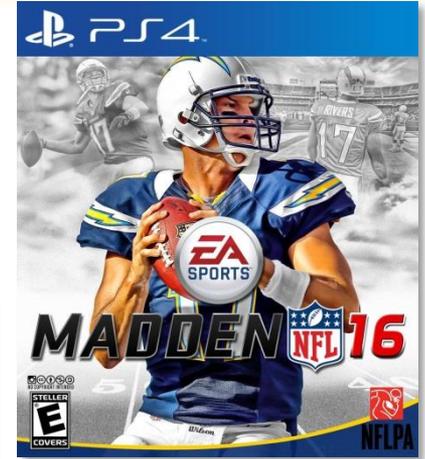
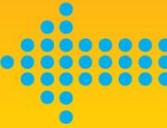
```
void FluidBodySim::CollideVortonsReduce (Vector Particle > & particles
, float ambientFluidDensity, float fluidSpecificHeatCapacity
, const Impulsion:PhysicalObject & physObj, Vec3 & rLinearImpulseOnBody
, Vec3 & rAngularImpulseOnBody, float & rHeatOnBody, size_t iPCollStart, size_t iPCollEnd
, size_t grainSize)

const size_t indexSpan = iPCollEnd - iPCollStart;
if (indexSpan <= grainSize)
{
    // Sub-problem fits into a single serial chunk.
    CollideVortonsSlice (particles, ambientFluidDensity, fluidSpecificHeatCapacity
, physObj, rLinearImpulseOnBody, rAngularImpulseOnBody, rHeatOnBody
, iPCollStart, iPCollEnd);
}
else
{
    // Problem remains large enough to split into pieces.
    size_t iPCollMiddle = iPCollStart + indexSpan / 2;
    // Create one functor for each sub-problem.
    FluidBodySim_CollideVortons_TBB cv1 (particles, ambientFluidDensity
, fluidSpecificHeatCapacity, physObj, iPCollStart, iPCollMiddle, grainSize);
    FluidBodySim_CollideVortons_TBB cv2 (particles, ambientFluidDensity
, fluidSpecificHeatCapacity, physObj, iPCollMiddle, iPCollEnd, grainSize);
    // Invoke both sub-problems, each on a separate thread.
    tbb::parallel_invoke (cv1, cv2);
    // Combine results from each thread.
    rLinearImpulseOnBody = cv1.rLinearImpulseOnBody + cv2.rLinearImpulseOnBody;
    rAngularImpulseOnBody = cv1.rAngularImpulseOnBody + cv2.rAngularImpulseOnBody;
    rHeatOnBody = cv1.rHeatOnBody + cv2.rHeatOnBody;
}
```





That was then, this is now...



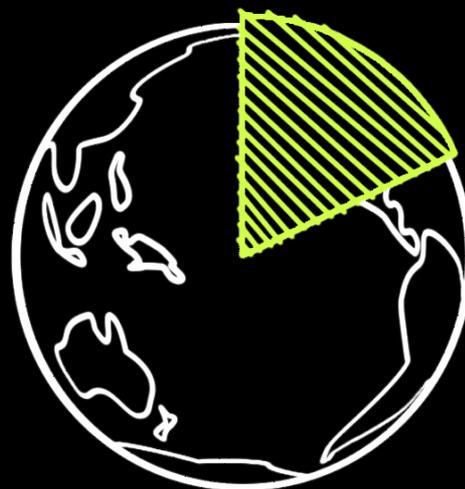


2001

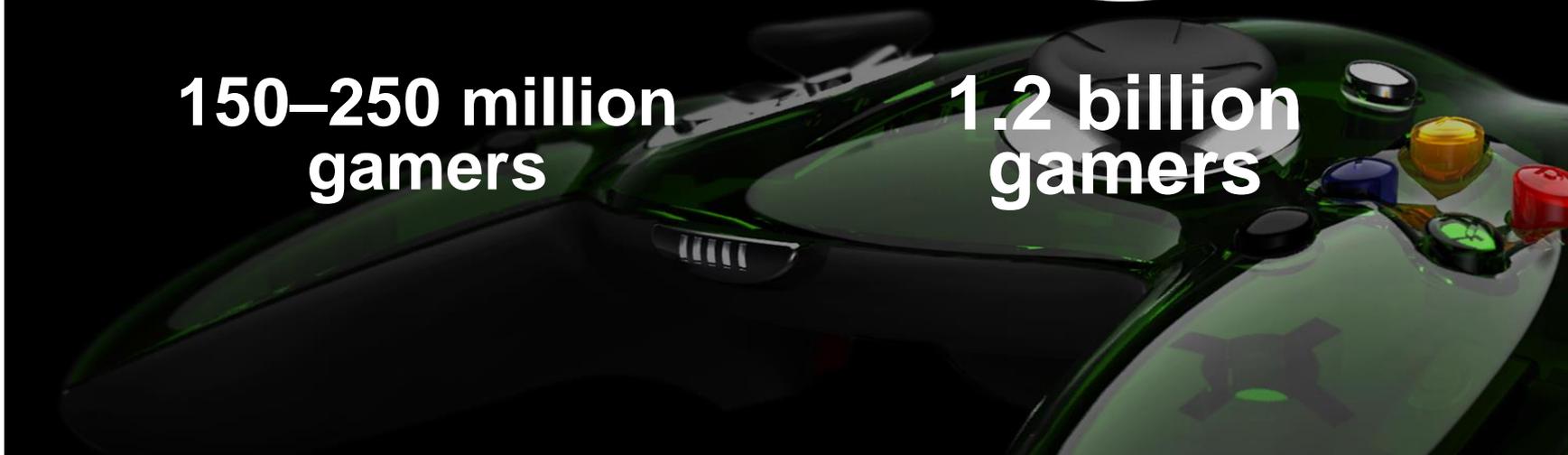


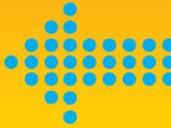
**150–250 million
gamers**

2013

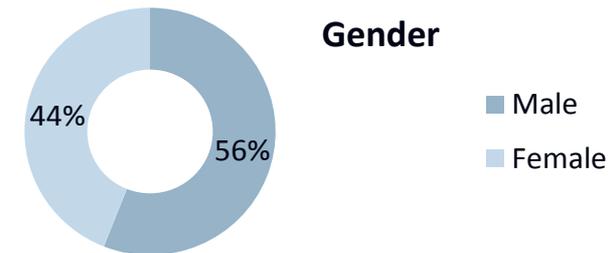
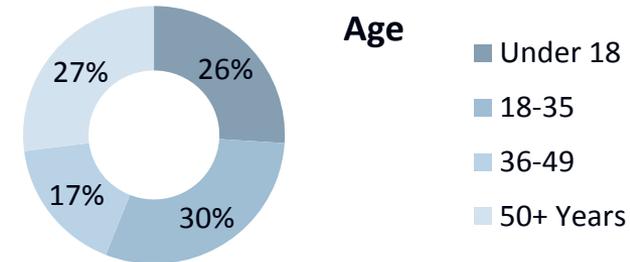


**1.2 billion
gamers**



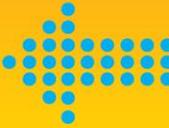


- 155 million Americans play video games
- The average gamer is 35-years-old
- 44% of all gamers are women
- 27% of gamers are over the age of 50
- Connected play—56% of gamers play games with others, either in-person or online
- Cross-generational play

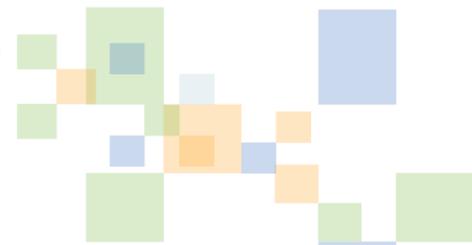




No Longer a Niche Industry

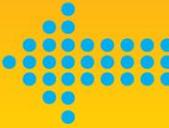


- PriceWaterhouseCoopers estimates that global video game sales will reach \$86.9 billion by 2017, up from \$63.4 billion in 2012
- The U.S. video game industry generated more than \$22 billion in sales revenue in 2014
 - This is more than music and domestic movie box office
- Sales of game content alone generated \$15.4 billion—more than double our industry’s 2004 revenue
- U.S. digital sales generated roughly \$10 billion in 2014, accounting for 52% of all game sales
- 48 million people subscribe to Xbox Live and 110 million people to Sony’s PlayStation Network worldwide
 - Taken together, this is larger than Russia’s population





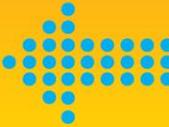
Smashing Records



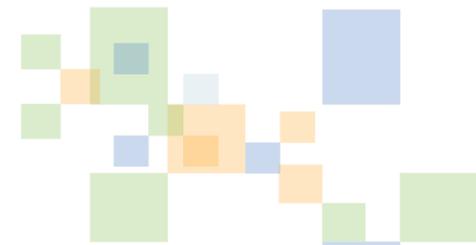
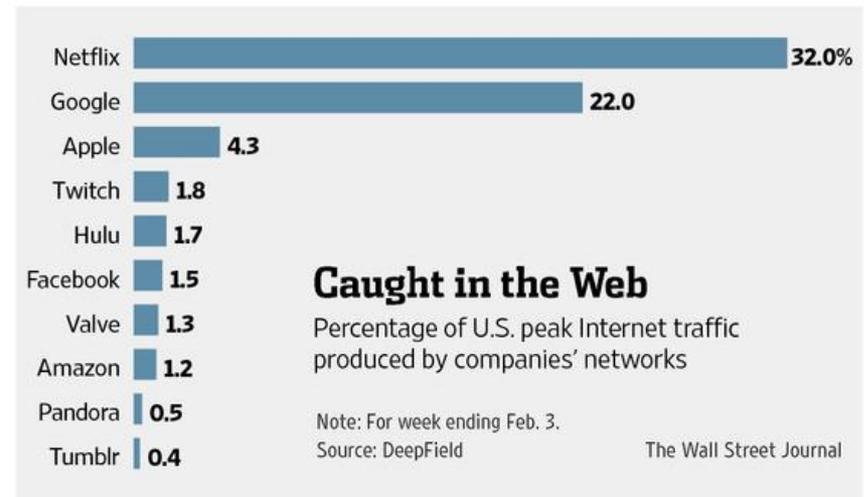
- G.T.A. V had the biggest one-day launch total in entertainment history--\$800 million in one day
- Day One Movie Record: \$91 million
 - (*Harry Potter & The Deathly Hallows Part 2*)
- Opening Weekend Box Office: \$208.8 million
 - (*2015's Jurassic World*)
- Minecraft has over 100 million registered users
- Angry Birds 2 was released July 20, 2015 and was downloaded 20 million times in six days



No Longer a Niche Industry

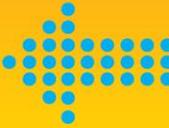


- In 2010, Twitch did not exist
- In 2014, Amazon bought Twitch for \$970 million
- 55 million unique visitors globally every month
- #4 in peak U.S. web traffic
- Valve is #7 in U.S. web traffic
- On October 4, 2013, *League of Legends* Season 3 World Championship broadcast over Twitch had 32 million people watch, which is more than the series finales of *Breaking Bad*, *24*, and *The Sopranos*—combined





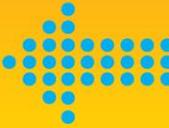
Changing Business Models



New platform technologies allowing companies to keep in constant contact with players

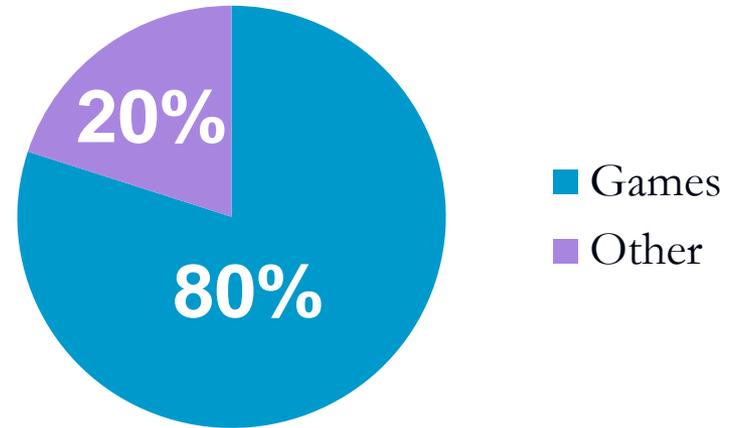
- Cloud game play expected to reach 66 million U.S. households by 2017
- Social games continue to grow: Supercell's *Clash of Clans* was the top-grossing game of 2014, making nearly \$5 million per day
- Mobile games make up 33% of digital game revenue; the average mobile gamer spends \$25 per month on mobile games
- According to Digi-Capital, VR/AR could hit \$150 in revenue by 2020, with AR at \$120 billion and VR at \$30 billion





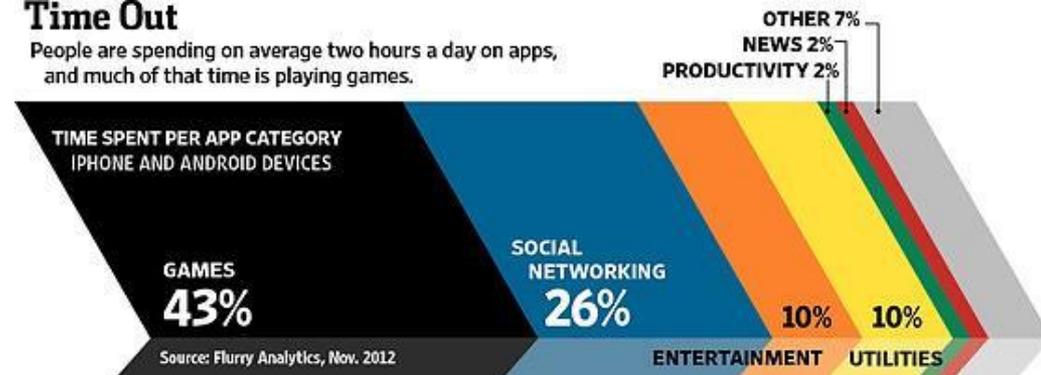
- Game play is the third most popular activity on smartphone and tablet devices
- 80% of mobile app revenue is from games
- On iTunes, 17 of the top 25 apps are games; eight of the top ten.
- Tablet users spend 67% of their time playing games; mobile users 43%
- More than the total amount of time spent watching videos, listening to music, checking email, engaging on social network sites, and reading magazines or books

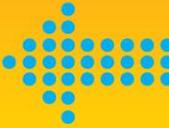
Mobile App Revenue



Time Out

People are spending on average two hours a day on apps, and much of that time is playing games.



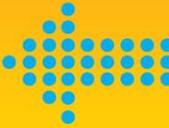


- *FIFA Soccer 15* has over 6 million people logging in to play every week
- *World of Warcraft* had more than 9.6 million monthly subscribers in 2012, and generated more than \$1.7 billion
- Players download digital titles, stream games, and connect to social networks through digital distribution networks



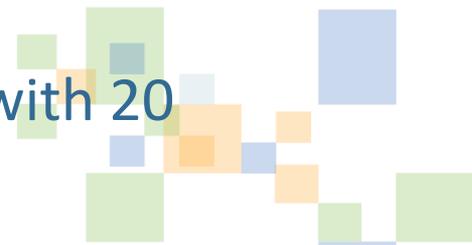


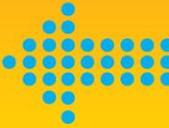
21st Century Jobs



Entertainment software is one of the fastest growing industries in the U.S. economy:

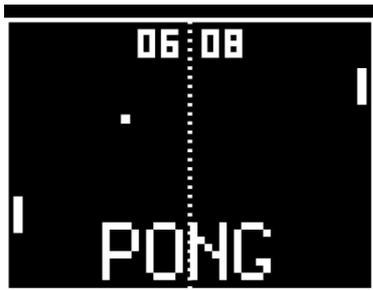
- 146,000 direct and indirect jobs in 36 states
- Across the U.S., the average compensation is \$95,000
- 859 colleges, universities, art and trade schools across the country offer courses, certificates, and/or graduate degrees in video game design, development, and programming
 - For film students – video games need producers, writers, and score composers too
- HEVGA launched at the Aspen Ideas Festival with 20 universities; it's now up to 59 schools





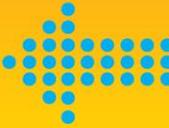
Why California?

- It's the spiritual home of this quintessentially California industry
- The industry is the ultimate combination of Silicon Valley tech and Hollywood entertainment
- The industry began and “grew up” here
 - Atari's *Pong*—1972
 - Mattel's Intellivision—1983
 - Activision's *Quake*—1996
 - EA's *The Sims*—2000
 - Oculus *Rift* VR 2013





A Closer Look: California



Among the top U.S. states in industry employment

- More than 17,000 direct and indirect jobs
- Average compensation for California game developers is \$103,000
- More than 607 developers & publishers of all sizes in California; 57 in Los Angeles and 124 in San Francisco
- 122 colleges, universities, and trade schools in California offer video game design courses and/or degrees; 48 offer bachelor's degrees, 11 master's degrees, and 1 offers a PhD



Top Schools for Video Game Design 2015

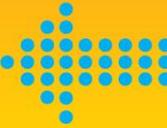


UNIVERSITY OF CALIFORNIA
SANTA CRUZ

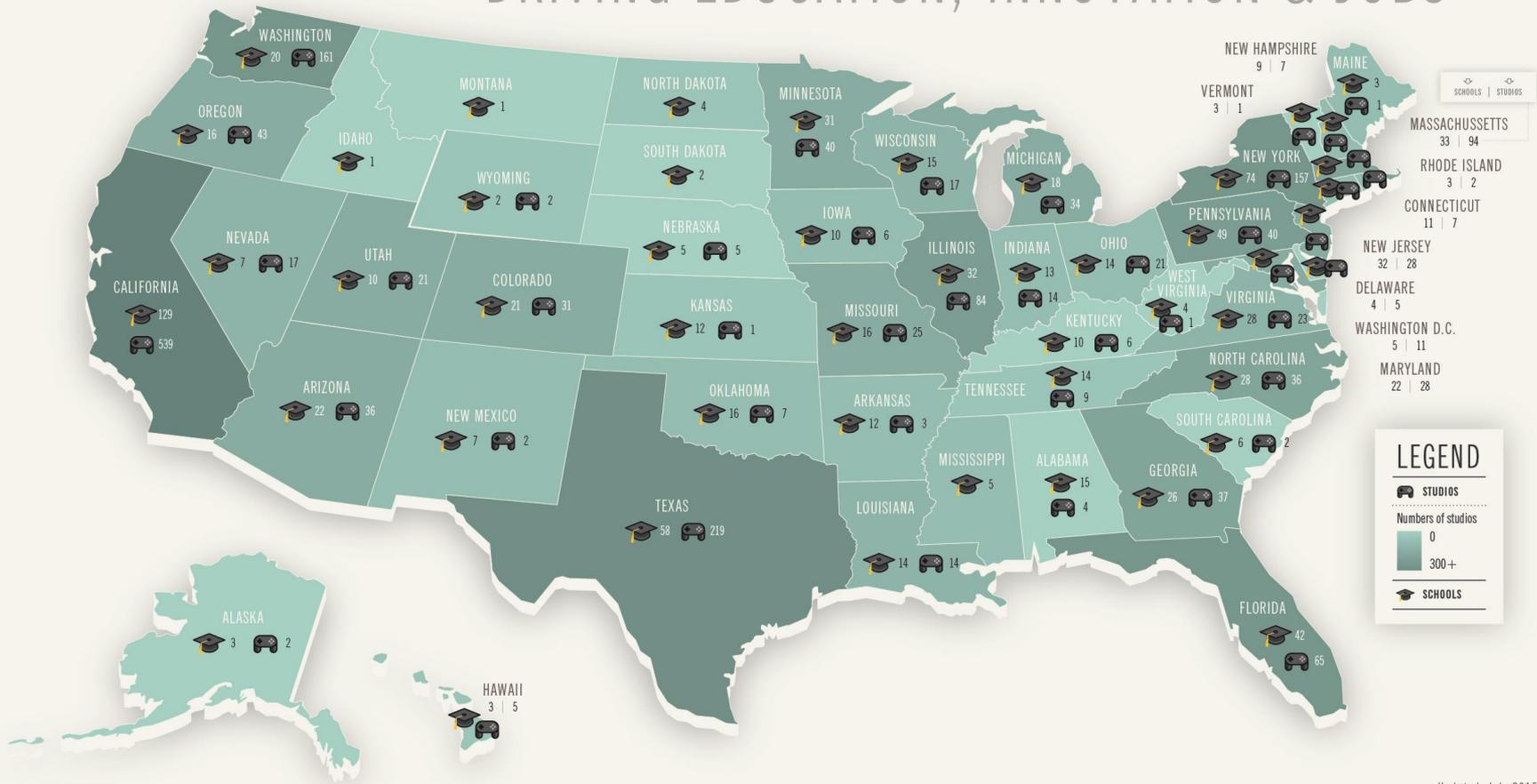




Are We In Your State? Yes!



THE VIDEO GAME INDUSTRY ACROSS AMERICA DRIVING EDUCATION, INNOVATION & JOBS



LEGEND

STUDIOS

Numbers of studios

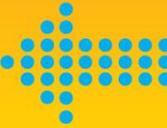
0 to 300+

SCHOOLS

Updated: July 2015



The Alliance



HIGHER EDUCATION
VIDEO GAME ALLIANCE

Collaboration
Conversation
Impact

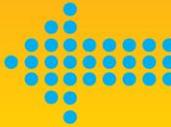
INFO@HIGHEREDGAMES.ORG

HIGHEREDGAMES.ORG





HEVGA's Members



P.O. BOX 50325 WASHINGTON, DC 20001 1.844.244.3842 HIGHEREDGAMES.ORG

List of Member Institutions

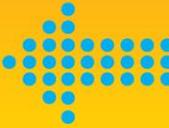
(As of August 13, 2015)

1. American University (DC)
2. Arizona State University (AZ)
3. Ball State (IN)
4. Becker College (MA)
5. Berklee College of Music (MA)
6. California Polytechnic State University
7. Carnegie Mellon University (PA)
8. CUNY—City University of New York (NY)
9. Concordia University (OR)
10. Dartmouth College (NH)
11. DePaul University (IL)
12. DigiPen Institute of Technology (WA)
13. Drexel University (PA)
14. Dublin Institute of Technology (Ireland)
15. Duke University (NC)
16. Eastern Kentucky University
17. Excelsior College (NY)
18. Franciscan University of Steubenville (OH)
19. George Mason University (VA)
20. Georgia Institute of Technology (GA)
21. Hampshire College (MA)
22. Harrisburg University (PA)
23. Howard University (DC)
24. Indiana University – Bloomington
25. Louisiana State University
26. Massachusetts Institute of Technology
27. Michigan State University
28. New York Institute of Technology
29. New York University
30. Northern Illinois University
31. Northeastern University (MA)
32. Parsons The New School for Design (NY)
33. Pennsylvania State University
34. Rensselaer Polytechnic University (NY)
35. Rochester Institute Of Technology (NY)
36. Royal Melbourne Institute of Technology University (Australia)
37. Saint Edwards University (TX)
38. Southern Polytechnic State University (GA)
39. Stanford University (CA)
40. State University of New York – Empire State College
41. University of California Irvine (Main Campus)
42. University of California Los Angeles
43. University of California Santa Cruz
44. University of Miami (FL)
45. University of Southern California
46. University of Tampere (Finland)
47. University of Texas – Austin
48. University of Texas – A&M
49. University of Utah
50. University of Waterloo (Canada)
51. University of Wisconsin, Madison
52. University of Wisconsin, Stout
53. University of Wisconsin, Platteville
54. Uppsala University (Sweden)
55. Vanderbilt University (TN)
56. Walsh University (OH)
57. Western University (Canada)
58. Worcester Polytechnic Institute (MA)
59. Yale University (CT)





Video Game Voters Network



- VGVN is an online community of voting-aged gamers who take action on issues affecting computer and video games.
- Through legislative outreach and interaction with the media, this grassroots network of more than 925,000 individuals actively defends the rights of video game creators and consumers.
- 109,000 VGVN members live in California
- The VGVN is building a groundswell of support for the positive influence video games have on the economy, health and families, artistic expression, education, and everyday life. For more information on the VGVN, please go to www.videogamevoters.org

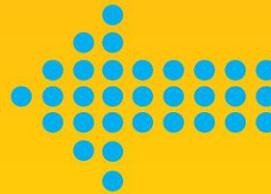




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