"Just for fun" crosses boarders:
Unity as a knowledge canal

Unity Technologies Japan
Hiroki Omae

CDIO Asian Regional Meeting 2014
Who am I?

- Hiroki Omae (@pigeon6)
- Regional Director @ Unity Technologies Japan
- A game programmer since age of 14
- Currently teaching “Project management for game development” at BBT University (Chiyoda-ku, Japan)
So what is Unity?
So what is Unity?

- Unity is a fun ecosystem for games and 2D/3D interactive contents creation
- Intuitive Editor & workflows
- Rapid Try & Error
- Giant community helps you to solve problems
- Very strong multi platform support
Democratizing Game Development

Unity Technologies Vision
Founders

Joachim Ante
David Helgason
Nicholas Francis
Founded: 2004

Unity started developing in 2001
Unity 1.0 released in WWDC 2005
Copenhagen office
How we write code
How we (actually) write code
Unity as a global company

- Number of employees: **380+**
- Number of nationalities of employees: **25+**
- Number of offices: **14 countries • 18 location**
Unity Technologies Japan?

- Founded 2011
- Akasaka, Tokyo
- 16 people
- Doing various things to help and empower developers in Japan
Why becoming de-facto?

- Good game and interactive contents are designed to be data driven
- Intuitive and productive tool makes difference in both speed and quality
  - Quality = # of Try & Error
  - Asset Store and Community empowers you even more
- Strong multi-platform support enables you to develop in Contents-First approach
Not only it is so many
It is ridiculously simple as clicking one button!
Free for personal and small organization use!
Also, reasonable pricing for educational purposes
Many books throughout world
What Is knowledge Canal?

- “Knowledge Canal” is a fast pipeline to exchange and apply knowledges across industries/academies/countries/individuals
Game Developers Conference!
SIG-Graph!!

Great Presentations!
Papers!
OMG it’s too hard..
Why it often didn’t work

- The environment was too different to even try to replicate a portion of their success
- The effort to fill the gap is just too big to justify - results reinvention of wheels is faster and cheaper
- When you have overcome all above, the solution may be outdated
- If crosses industries, things are harder because even terminologies are different
Unity as Knowledge Canal

- Standardized development platform for 3d contents creation
- Modular (component based) architecture let people share pieces of their software super easy
- Used across industries/academies/countries, so that it is easy to learn or find someone already familiar with
So how much is it really used?
Unity user bases

- Over 2,500,000 developers uses Unity today (2+% of all software developer worldwide)
- Over 500,000 developers uses every day
Asia and Unity

- 1: USA 16.6%
- 2: China 14.1%
- 3: South Korea 7.6%
- 4: Japan 6.1%
- 5: UK 5%

China + Korea + Japan 27.8%
Adding up all Asian countries above 50 34.8%
Asia and Unity

- 9: Taiwan 2.9%
- 23: Vietnam 0.8%
- 24: Philippines 0.7%
- 25: Denmark 0.7%
- 26: Thailand 0.7%

Looking small? x 2.5M!
Unity’s rapid growth in Japan

- Companies uses Unity Pro: **850+**
- Developers uses Unity: **100,000+**
- Rapidly becoming de-facto standard of game development
Asset Store

- Asset Store is a marketplace that you can purchase or sell:
  - 2D/3D graphics models, textures, audios, feature extensions...

- Originally designed to solve problems of:
  - Making game often requires variety of talents (which only cooperate is affordable)
  - To make income from by-products of game to help create game
This package contains:

- **Bushes**: 7 different species in over 60 variations.
- **Grass**: 14 different grass textures + 4 grass meshes.
- **Flowers**: 5 different species in 9 variations.
- **Plants**: 8 different species in 27 variations.
- **Trees**: 10 different species in 133 variations.
- **Underbrush**: 6 different types in 14 variations.
- **Terrain Textures**: 12 different textures.
- **Rocks & Stones**: 21 different types with optimized collision meshes in 52 variations.
- **Particle FX**: 6 different particle effects
- **Buildings**: 18 buildings with optimized collision meshes and 3 LOD stages.
- **Castle Construction Kit**: 9 different components. Just put pieces together and build
Cave Creator

Category: 3D Models/Environments
Publisher: Dexsoft Games
Avg. Rating: ★★★★★
Version: 1.1 (September 16, 2011)
Size: 55.5 MB

With this construction set 3D model package you are able to create your own underground cave system. There are different cave parts and decoration objects to make it more interesting.

This pack contains 54 models (including all LOD stages), 39 unique models. Additional normal maps are included (up to 1024px).

Dexsoft Games
Demo
How does it help people to cross boarders?
Hiyoshi Jump
4th Keio Media Design (KMD) Forum,
Superhuman Olympic
Superhuman Olympic?

- “Superhuman Olympic“ Demonstration of the Researches about Augmented Sports

- Augmented Sports are the new field of Sports pioneered by KMD Reality Media Project Professor Susumu Tachi, Professor Masahiko Inami and Associate Professor Kouta Minamizawa

- Exhibition contents of 4th KMD Forum

http://superhuman-olympic.org/index.html
An interactive VR content that you can experience 100m+ height jump
Uses 360° video recording of Keio Hiyoshi campus with drone
Uses Oculus RIFT HMD for both display & jump detection
Collaborators

- Yohei Yanase (Unity, VR Engineer, Game Designer)
- Makoto Ito (Unity, VR Enthusiast, Engineer)
- Project Assistant Professor. Masahiro Furukawa @ Keio University
- Yamen Saraiji @ Keio University
Why Collaboration?

- Yanase and Ito @ Unity were eager to prototype non-game applications with VR and Unity
- After trying a few prototypes with 360° cam, they were seeking way to shoot the real fly through → how?
Why Collaboration?

- Keio Media Design lab luckily had quad-copter that can carry weight of 1kg, as well as an engineering student who has an ability to build custom mount for it (Mr. Saraiji)

- Shooting fly-through that high requires permission from public office
Speed of development

- From shooting to the exhibition was **less than** 10 days

- “Hey that sounds fun, let’s just do it!”
Portable Device of Airborne Ultrasound Tactile Display
The Center for Fostering Young and Innovative Researchers, Nagoya Institute of Technology, Aichi, Japan
http://star.web.nitech.ac.jp/aufd/aufd.html
Takayuki Hoshi
Project Researcher,
NITECH
Enabling device to the smart masses

- Recently, a lot of **new human interaction devices** such as LeapMotion or Oculus RIFT comes from Kick Starter cloud funding

- Almost all of those kickstarter-funded devices **ship with Unity extensions**

- Even a **prototype device which exists only handful on earth** can take advantage if follow the same strategy
Enabling device to the smart masses

- Original software for portable ultrasound device was in C/C++ codebase
- Unity has an ability to call C/C++ library from script
- Mr. Hoshi and Yoshihito Kondo created a simple extension to Unity to control portable ultrasound device
Enabling device to the smart masses

- Art piece by “Technician in wild” Yoshihito Kondo for Miku Hatsune 6th anniversary - quite well buzzed

- Easily empower creators without forcing them hassle with technical challenges of “plumbing”

- “Hey, its awesome! I will make something with this”
Entering JFF

- Just For Fun based approach
- Doing first, getting serious second
  - Do not even think of reason to do it
  - encourage bizarre and crazy things
- work from passion, not merit or moral
Game Jam
What is Game Jam?

- Game jam is a hack-a-thon of creating games, like jam session of music

- Held many times, across the world - the largest Global Game Jam had 23,198 participant from 488 locations worldwide (72 countries).

- Very good mixer of talents from schools/professionals/individuals/enthusiasts

- Very often tackle bizarre topic in a short amount of time.
Gather crystals!

Don’t touch needles!

Avoid holes!
REPUBLIQUE and Yusuke

- REPUBLIQUE by Seattle based studio Camouflaj is AAA quality mobile game

- Yusuke Ikewada was a GUI designer and also game jam enthusiast, making games in jam JFF

- Camouflaj founder Ryan found Yusuke’s work best match for REPUBLIQUE, soon started working together across boarder
Niconico research madness
a series of 180 sec. short presentations of “research in madness” by wild researchers or researchers in academy
But how are they benefit to world?

- Will they make money? → NO!
- Will they solve problems? → Forget it!
- Consider it as more like sports - training skills and your hands/mind.
- If your hands are moving, you are instantly ready when you meet a problem to solve.
Today’s students know “attention based economy”

- Attention can be converted to money
- Attention can create their carrier
- “To be known” creates a lot of chances and possibilities, even solves problems sometimes
- Buzz of Fun is strong
Possible other canals today

- Arduino/Fritzing
- 3D Printer/On demand (social) printing - Fablab
Coffee_cup_icon

¥11,527 JPY
※税込み・送料別

カートに入れる
Takeaway

- Engineers can be motivated if it is fun - be ready by having a lot of fun until actually meet with problems to solve.
- Utilize fast pipelines, and consider to connect yours so that it opens variety of possibilities
- Encourage JFF based events to maximize opportunities
- Share facilities and services to wild engineers to maximize opportunities (Fablab)
Q & A

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Thank you!

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