The Future of Fortnite
(in Education)

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What does Epic Games do?

- Publishing
- Licensing
- Non-games
- Games
Game technology is powering the future and many industries.
Gaming Growth

- **2.7 billion** gamers worldwide (2020, newzoo)
- **83% of female** and **97% of male** US youth between the ages of 13-17 play video games regularly
- Video Game Market will surpass **$200 billion USD** by 2023 (newzoo)
- Gaming Industry is now bigger than the movie and music industries combined
Pathways from player to creator

User/Player → Customization → Visualization → Interactive 3D Ideation → Mixing media - using different tools → Creating

PLAYER → MOVING TO VISUALIZATION → CREATING IN INTERACTIVE 3D

FORTNITE → Twinmotion → Unreal Editor for Fortnite
Why should you use

Sandbox games in learning

- Freedom to Create
- Cross Curricular
- Student Agency / Expertise
- Low Floor / High Ceiling
- Real Time Collaboration
- Build Immersive Experiences
- Platform vs. Game
Over 500 million registered users

2.9 to 4 million concurrent players in Fortnite at any one time

Fortnite Ch2: S4 finale event had 15.3 million concurrent players

3.8 billion cumulative days played (most played video game on the planet!)

Over 50% of all in-game playtime comes from user-generated content

Creative mode is viewed as a development platform
Getting started in Fortnite Creative

- Fortnite Creative Documentation
- Fortnite Creative for Minecraft Creators
Fortnite Creative Lesson Plans

Computer science lessons
Interdisciplinary lessons

COUNTERFACTUALS: THEIR STORY, YOUR WORLD
Have you ever thought about what would happen if different courses of action occurred with regards to historical events? In this lesson, students will be asked to present a counterfactual history in Fortnite Creative.

CREATE A RUBE GOLDBERG MACHINE IN FORTNITE CREATIVE
Full of humor, wit, and based on simple machines, Rube Goldberg inventions are described as overly complex machines comprised of a number of automated actions to solve a simple problem. Students will learn about the exciting world of physics by creating their own Rube Goldberg Machine in Fortnite Creative mode.

FORTNITE LITERATURE MACHINIMA: THE ALTERNATE ENDING
Did the novel have to end that way? If you were the author, is that the ending you would have written? In this lesson, students will have the opportunity to reenact and rewrite the ending to a novel. They will be creating a machinima video in Fortnite Creative mode to share their alternate conclusion.

THINK BEFORE YOU SPEND!
Create a fun and challenging game for your classmates in Fortnite Creative without breaking the bank! In this lesson, students will learn how to make important decisions regarding resources, structures, and game elements in order to keep their game under budget.

SITE AND SITUATION: WHERE WOULD YOU SETTLE?
Have you ever thought about how the geography of where you settle could impact your life? In this activity, students will determine where to build a settlement by analyzing the pros and cons of each location.

THEME PARK OF THE FUTURE
Ready to take a thrilling ride? Roller coasters have been entertaining thrill-seekers for hundreds of years. It's a fun way to explore physics. In this lesson, students will use their knowledge of physics to build theme park rides in Fortnite Creative.

JUST A MATTER OF TIME
Let’s get weird! Breaking down historical events and understanding how history plays out can be complicated. By creating a timeline and laying out events as they happened, students will learn how to make understanding history a lot easier—and more fun too!

MAKING CHOICES
Have you ever thought about how geography impacts your gaming experience? In this lesson, students will learn how the geography of a location and a player’s preferences can affect the outcome of their experience. They’ll also learn how to prioritize their assets while creating a game that is entertaining to their peers.
Creating Solutions to Real World Problems

UN Sustainable Development Goals

- SDG 13: Climate Action
- SDG 10: Reduce Inequality
- SDG 8: Employment and Economic Growth
In game learning experiences
UNREAL EDITOR
FOR FORTNITE
Unreal Editor for Fortnite

Overview

- Build on FN Creative with your console
- Build on UEFN with your PC
- Advanced creative controls
- Cinematic shots
- VFX
- Animation
- Terrain building
- Bring original content into Fortnite
- Real Time Collaboration to make and test games
- Verse Programming Language
Unreal Editor for Fortnite

Tech Demo
Wonders:
Pyramids of Giza

Fortnite Island Code
0458-0828-0073

Made by PRELOADED
Unreal Editor for Fortnite
Control rig and animation
Unreal Editor for Fortnite

Import original assets
Unreal Editor for Fortnite

Verse functional programming language
Getting started in UEFN

- Fortnite Creative Documentation
- Your First Hour in UEFN
- UEFN for Fortnite Creators
- Beginner Tutorial - UEFN Starter Course!
- Creating a Car Racing Game Mode in UEFN
- UEFN Documentation
The freedom to create, innovate, and collaborate like never before
Our students are living in the prototype of the metaverse. They will be instrumental in building it.
It is our responsibility to nurture the next generation of creators

Our future is in their hands
The Future of Fortnite

“But what’s more interesting is what Fortnite could yet become and how the game could shape the internet as we know it.”

Let’s leverage this for Social Impact!

Teddy Amenabar and Jonathan Lee, Washington Post
Epic MegaGrants
Make amazing things

$100,000,000 in grants to fund all kinds of creative work, including work by teachers!
3D Creation for Everyone through Exposure Education

Liz Dailey, Co-Founder & Executive Director
Patrick Cozzi, Co-Founder

CreateAccess
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### My Player to Creator Path...and Today’s Opportunity

<table>
<thead>
<tr>
<th></th>
<th>1994</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ubiquity</strong></td>
<td>“What’s a computer?”</td>
<td>Computers in our pockets</td>
</tr>
<tr>
<td><strong>Creating</strong></td>
<td>QBASIC, Turbo Pascal, Assembly</td>
<td>UEFN. No code, Verse</td>
</tr>
<tr>
<td><strong>Learning</strong></td>
<td>Bulletin Board Systems, Books</td>
<td>YouTube, Epic Developer Community</td>
</tr>
<tr>
<td><strong>Distributing</strong></td>
<td>Bulletin Board Systems</td>
<td>400 million registered Fortnite users</td>
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My grades went from **C+** to **A**

Today’s path to becoming a creator and seeing tangible results is quick!
About CreateAccess

- New Philadelphia-area nonprofit
- Aims to boost socioeconomic mobility and access to high-impact careers through 3D creation exposure education
  - Game development, 3D modeling, computer science, technical art, engineering, entrepreneurship
- Instills curiosity and builds confidence in beginner creators
  - Lowered barriers through accessible, no-code and low-code, freely available creator tools
  - Our first student cohorts used the Unreal Editor for Fortnite within a few weeks of its release!
Microcourse Model of Exposure Education

- Early successes and visual results that resonate
- End-to-end, project-based workflows broken into digestible chunks
- Completed in a few hours
- Professional 3D creator tools
- Experimentation actively encouraged
- Freely available videos and written guides
Example Microcourse: Create Unique Fortnite Islands with 3D Capture Phone Apps

1. Create model using photogrammetry
2. Edit model’s geometry
3. Build your Fortnite Island

Tools:
- polycam
- blender
- Unreal Editor for Fortnite
Early Pilots

- 25+ middle and high school students - many with no 3D creation experience
- Participants created Fortnite Islands with original photogrammetry models in 3 hours or less
- Many participants explored additional features of UEFN
  - Verse programming, landscaping, animation, collision, applying materials, Fab Marketplace
- 4 student participants turned microcourse creators and 2 educators were hired to work with us in summer 2023 to build and facilitate microcourses
Creator Gallery
Many Possibilities for UEFN Creator Workflows

- Phone-based photogrammetry
- Fab
- UEFN modeling tools
- External modeling tools: Blender, Fusion 360, etc.
- Drone-based photogrammetry
- ...

Many possibilities for creators → increased exposure to different areas of computer graphics.
Future Directions

- More microcourses, more functions, more workflows into UEFN
  - Create your environment (boxing gym, concert venue) using UEFN
  - Animation, collision
  - Drone captures

- Community-building
  - Content contributors
    - Student contributors
  - Facilitators
    - Resources to facilitate microcourses where you are
  - Implementation partners
    - Schools, community programs

- Sustainability
  - 3D Creator Studio
Collaborate with Us!

● Please use our microcourse materials, freely available to all on our website!
● We would love to work with you as an implementation partner, contributor, or volunteer facilitator
● Contact hello@createaccess.org

createaccess.org