

**From nothing to something:
Making a game with zero budget**

This talk is about making games if you don't have a lot of resources.

What I want more of:
Games from unusual perspectives
that make me rethink what a game can be.

This talk is for people who:

- Want to make games
- Probably don't have a qualification for that
- Don't really know what to work on, or how to do that
- Have no money, or don't want to spend any on
gamedev

Most useful if you:

- Want to make your own games, not someone else's
- Don't have traditional game-making qualifications
- Have a style/vision for games that might not get made by a big studio
- Want to make more experimental stuff
- Already have some idea how to make games (know how to program a bit, made a few tiny projects)

In other words, this is aimed at 22-year-old me:

- Degree in Literature
- Hobbyist game maker: had started ~30 projects, finished 1
- Wanted to make bold, unusual, experimental games
- Never worked for a game studio
- Had zero monies

This talk is basically "Stuff I wish
I could tell 22-year-old me"

My story:

- Got job as part-time English trainer (~€700/month)
- My girlfriend bought most of our food (thank yooooou <3 <3 <3 <3) (This is one reason I don't recommend this route, not much food-money)
- For 18 months: worked on badly planned, unfinished projects
- Next 18 months: worked on better-planned projects (finished, but very little money)
- Next 18 months: worked on big project (Spinnortality) (also no money)
- Met mentor (Alexis Kennedy) who planted idea of Kickstarter
- Successful Kickstarter for Spinnortality (omgMONEY!\$\$\$\$)
- Now working on Spinnortality full time. Just got a funding grant from the AWS! :O So launch date is now January 2019.

So what on earth am I going to talk about?

(0) How do I make a game?

1. Picking a project to work on

2. Actually making the game

3. Dealing with the whole "No money" problem?

4. I've got a game! Now what?

What does the rest of your life look like?

I was working part-time, but you might be unemployed or work full time, or freelance, or be a student, or something else.

I'm going to assume that you have a way of keeping a roof over your head, though. If you don't - YOU NEED A DIFFERENT TALK :O

So you want to make games! Now what?

If you already have some way of making games, and it works, it might be worth sticking with whatever that is.

If you don't, might I suggest Unity? ;D

(Tutorials from Unity, quill18creates)

Other options: Unreal 4, Game Maker...

...Twine, Ink, Stencyl, Adventure Game Studio (win only)

This is not a bad time to pick up a new programming language / development environment!

As long as you can keep a roof over your head, you're free to muck around with new tools. **I suspect this decreases when you have to make games to pay rent.**

One mistake I made was becoming too attached to old, outdated tools. 5-10 days of learning Unity would have saved me **at least a year.**

1: Picking a project

Pick a project. What's the most important thing?

Creativity?

Passion?!

Coolness?

Market niche?

Scorp

Scope

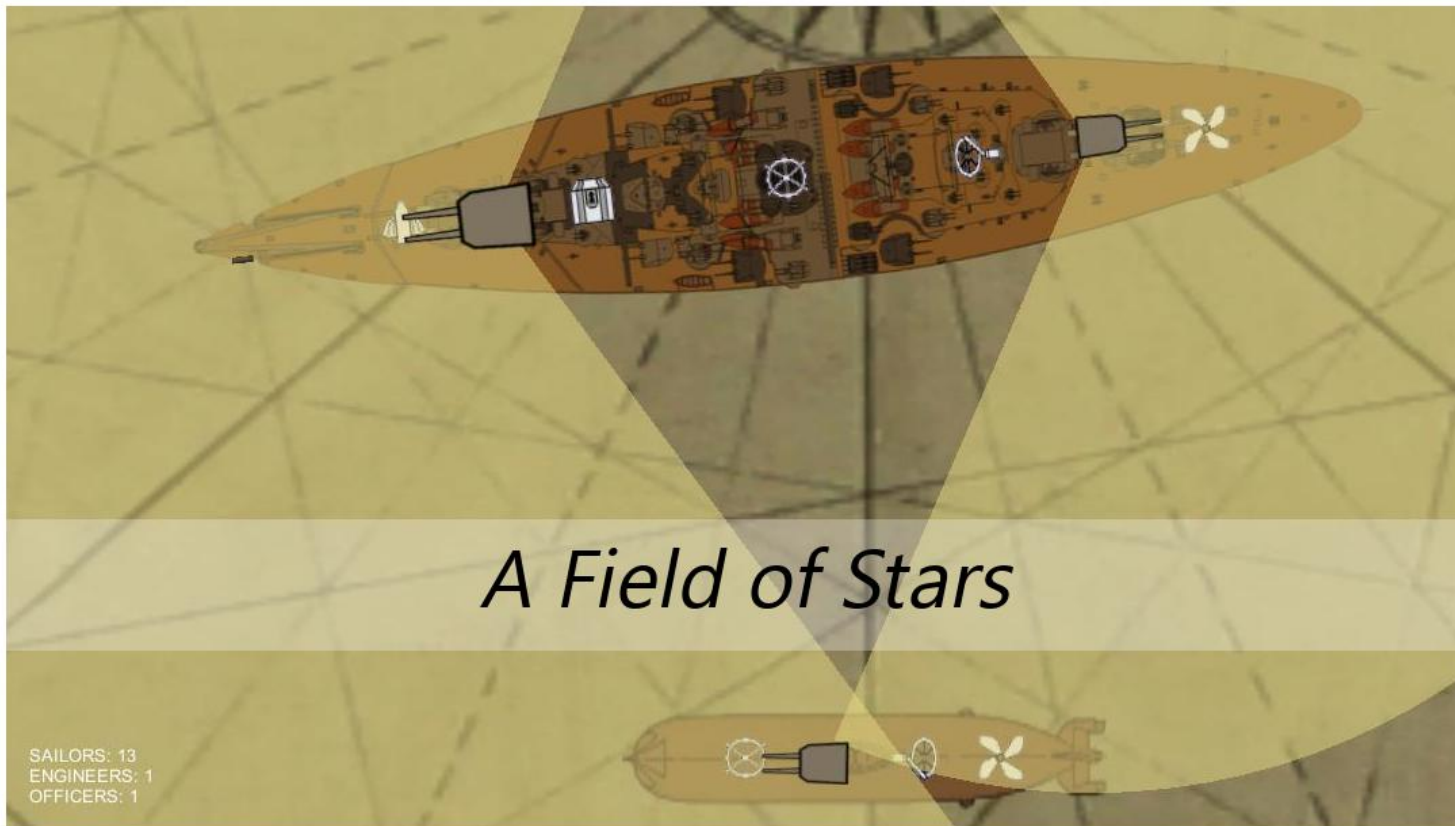
Scope:

- How long will this take?
- What skills / people / resources will I need?

Think about:

- How much time will this take (+20%), and what does my schedule look like? When will I be able to do this?
- (Calculate using time you *actually have*, not time you wish you had!)
- What resources can I call on? (My skills, friends, freelancers, free stuff)

How not to do this:



- Steampunk space role-playing game

Planned(!) features:

- Steampunk aesthetic
- Ship-to-ship space combat styled on WW1 battleships
- Dozens of ship types
- Sprawling open world galaxy
- Plot about "Lost Earth"

- Role playing mechanics
- Every planet can be colonised
- ...and you can visit every planet
- ...and have conversations with key characters
- ...and the planetside graphics are like this:



*(The Mysterious Geographic Explorations
of Jasper Morello, 2005)*

- And you can have children
- And there's cultural modelling
- And your child will grow up influenced by that culture
- And there are missions
- But you don't have to take them
- And if you discover a new system you can build a new warp gate there and sell land rights ('explore' path)
- And there are several different playstyles and approaches and roles and OH MY GOD JAMIE WHY

NO :(

WHY D'!

This is super awesome. I want to play this game.

This is a project for a team of at least ten people, working for at least two years, who have all made games before.

I am none of those things.

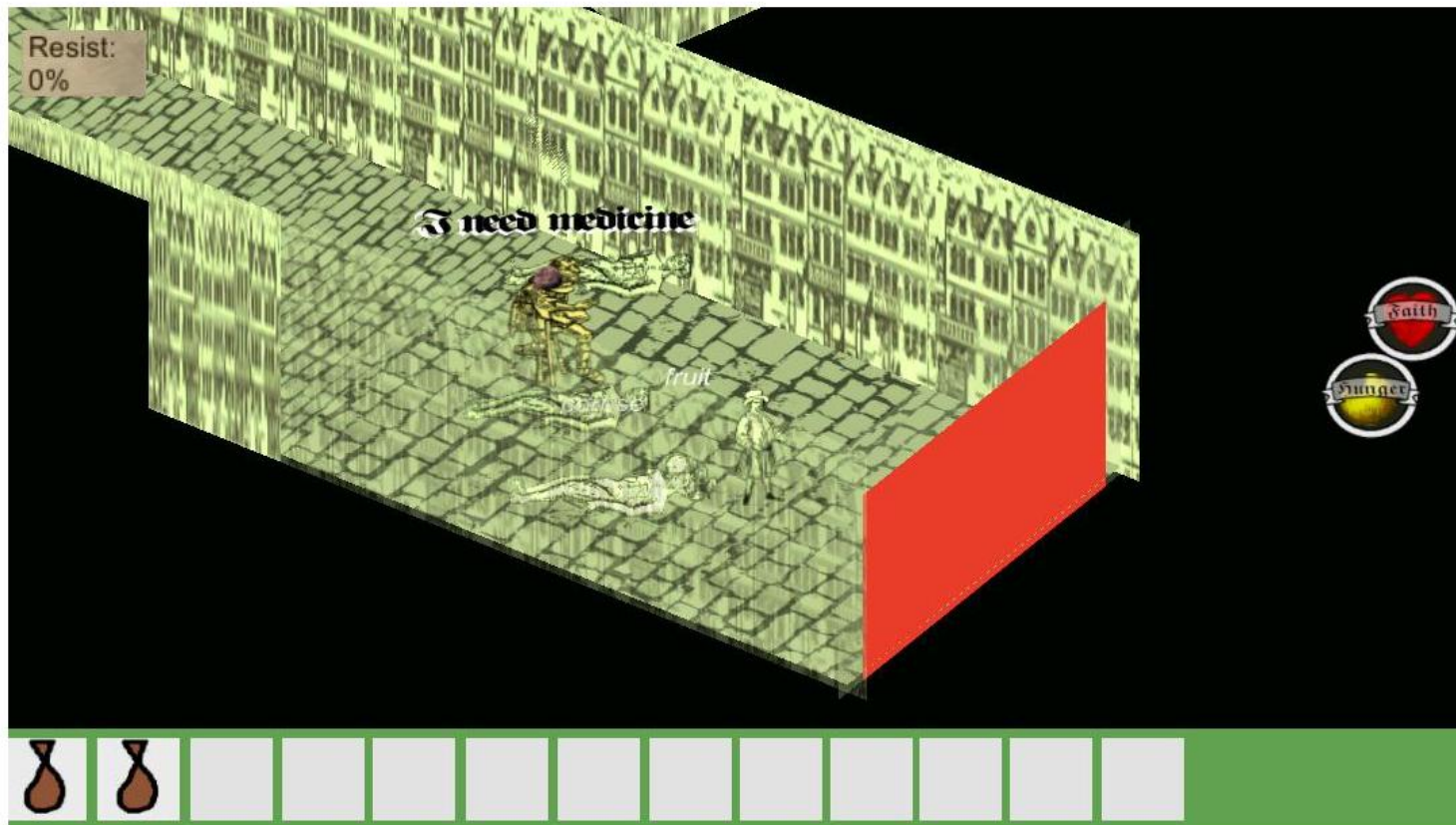
Pick a project that fits your time/skill/experience level, *and is **also** a cool idea.*

Ideas are easy (or at least easi**er**). Inspiration is cheap.

Working is harder, and more time-consuming. **You owe it to yourself** to pick something you have half a chance in hell of finishing in a reasonable timeframe.

If you're not sure if you have the skills to complete a project, better to spend a month prototyping than spend a year figuring it out the slow way.

How to do this wrong:



No understanding of historical art copyright. ("It's old, I'm sure it's public domain.")

Scope way too big. (Failed due to no clear end date.)

Biggest mistake: this game **required animation.**

I am **not an animator.** "I'm sure it'll be fine."

Didn't even do an animation mock-up. Spent 1 year on it pointlessly.

Also think: "What do I want to get out of this?"

Build skills?

Fun?

Publicity?

Political commentary?

Make money/go fulltime?

New idea?

A game idea is NEVER too small.

Even the small ones have a way of becoming strangely big. So don't be afraid of only working on simple projects you can finish quickly.

When you start out, you will either work on small, simple projects, or you will work on big projects you never finish. (I speak from experience.)

"But I've never worked on a game before! I don't know how to estimate scope!"

It's an important skill, so do your best and learn from that. Never start any project without a rough scope estimate:

- 1) You now have a plan - useful even if rough
- 2) Constant learning: once you make a scope estimate, keep re-evaluating your scope/plan to see how close you were, and if your scope estimates are accurate. Scoping is a skill, so we should practice it, not just cross our fingers. (Alexis Kennedy's idea.)

Scope tips:

- Make outline of whole game (good for focus). Map it to calendar
- Make list of mechanics & how much time you need to implement each one
- List of assets / skills / resources you need
- Indicate what's 100% necessary, and what can be cut. What's the most basic version of the game that works? (You could add updates / DLC later)
- Favour modular design: add as much as you can handle but no more, eg. written events, extra sidequests/scenes/characters, "bolt on" mechanics (Dwarf Fortress style)
- What is the max amount of time you'd be willing to work on this for?

What clever scope looks like:
"The Gods are Hungry"



thomas was alone

Mike Bithell

IT PROVES THAT YOU DON'T
NEED TENS OF MILLIONS OF
DOLLARS AND HUNDREDS OF
STAFF TO MAKE A STORY WORTH
TELLING, JUST A GOOD HOOK,
AN ENGAGING VISION, AND A
WHOLE LOT OF HEART.
DESTRUCTOID 9/10

In Other Waters

Jump Over the Age /
Gareth Damian Martin



Currently Monitoring: Darwin High School

Date: Oct. 24 2014

State: **Protected**

Open Sorcery

Abigail Corfman

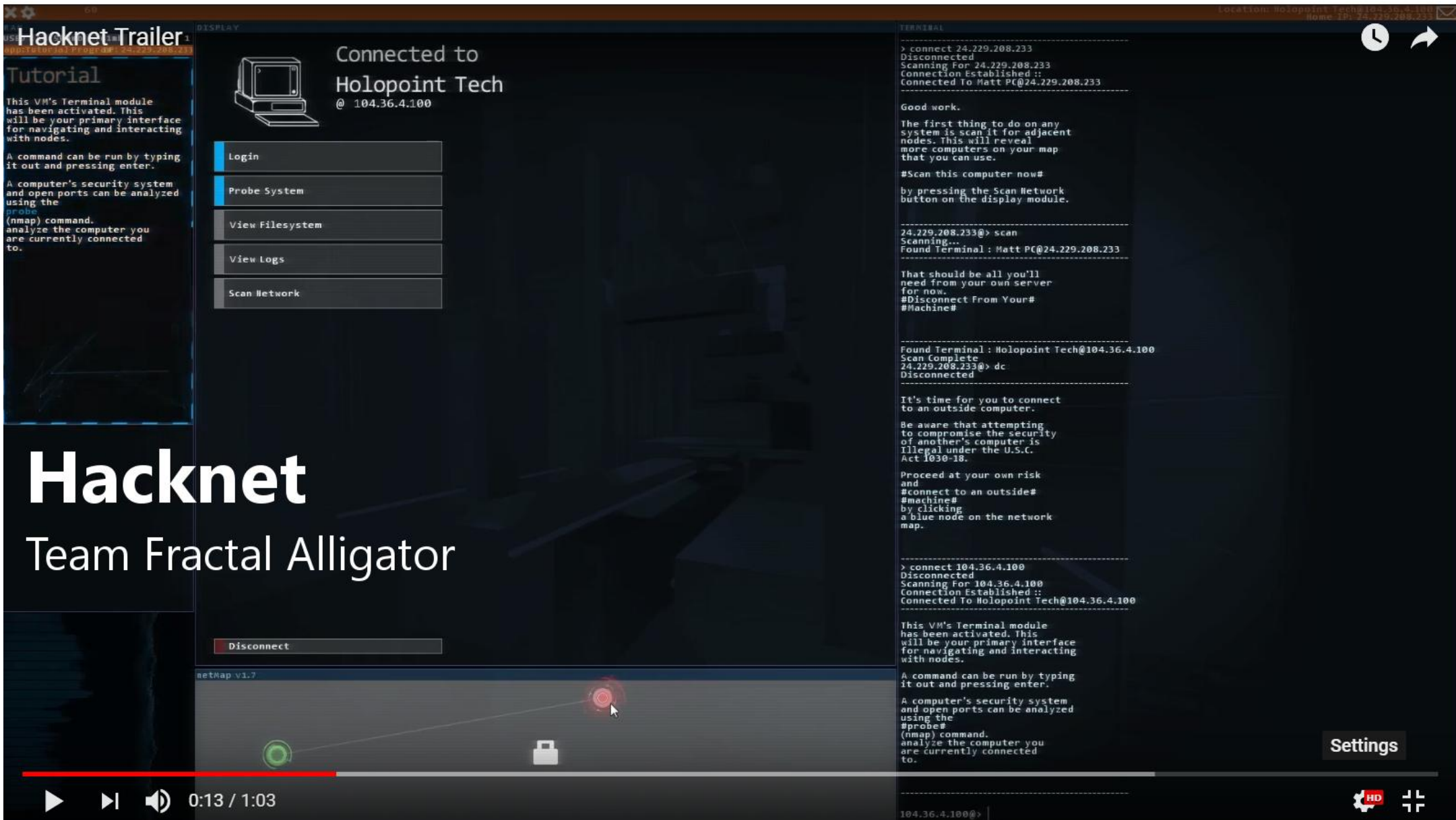
Change View

DwHiScl **ChOrRet** DkApt JtHs

Access **CtrlPnl**

Binary Evocation Listener/Signaler [OS E. Firewall Toolkit]

How does an elemental firewall help protect me?



Hacknet

Team Fractal Alligator

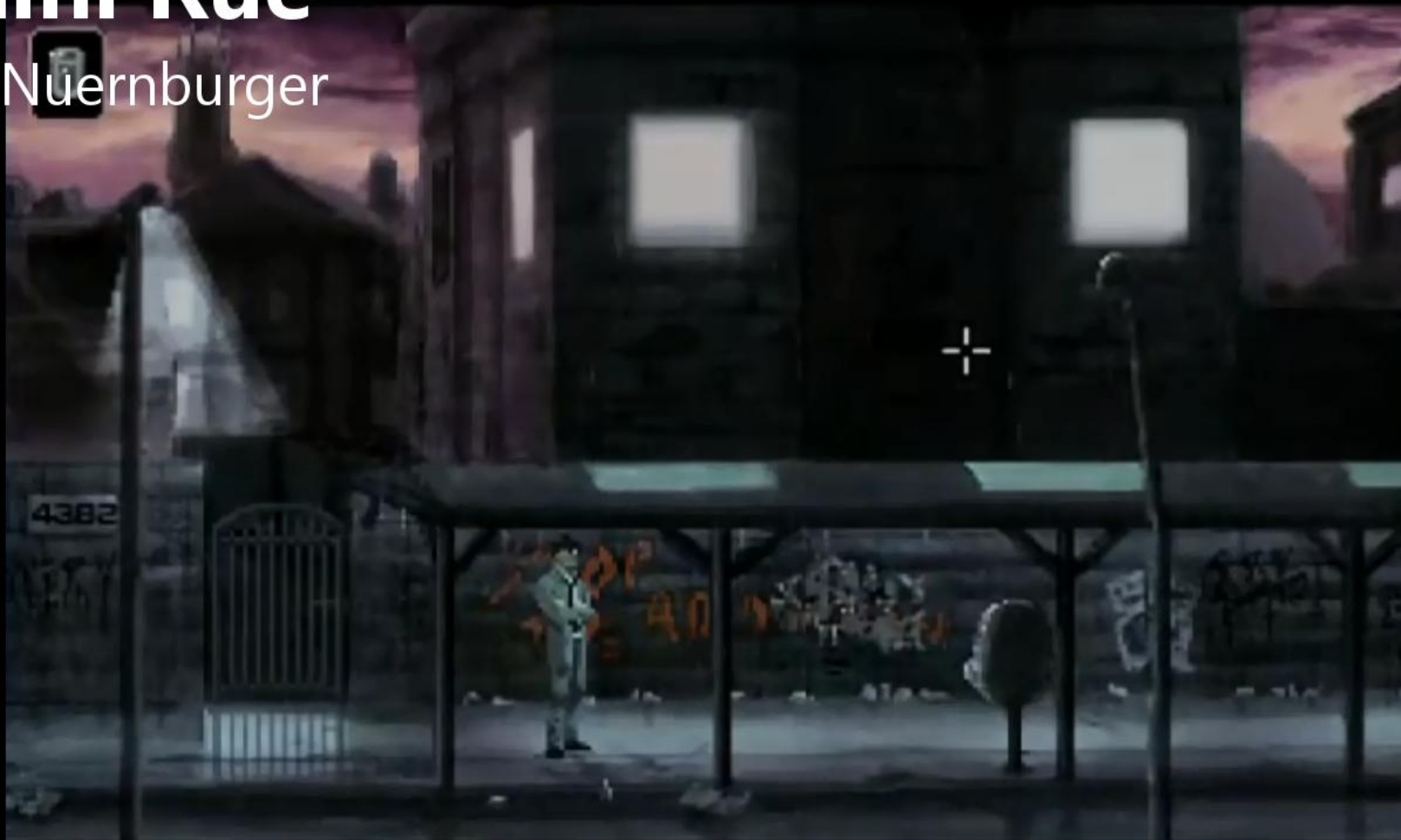
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Settings



Gemini Rue

Joshua Nuernburger

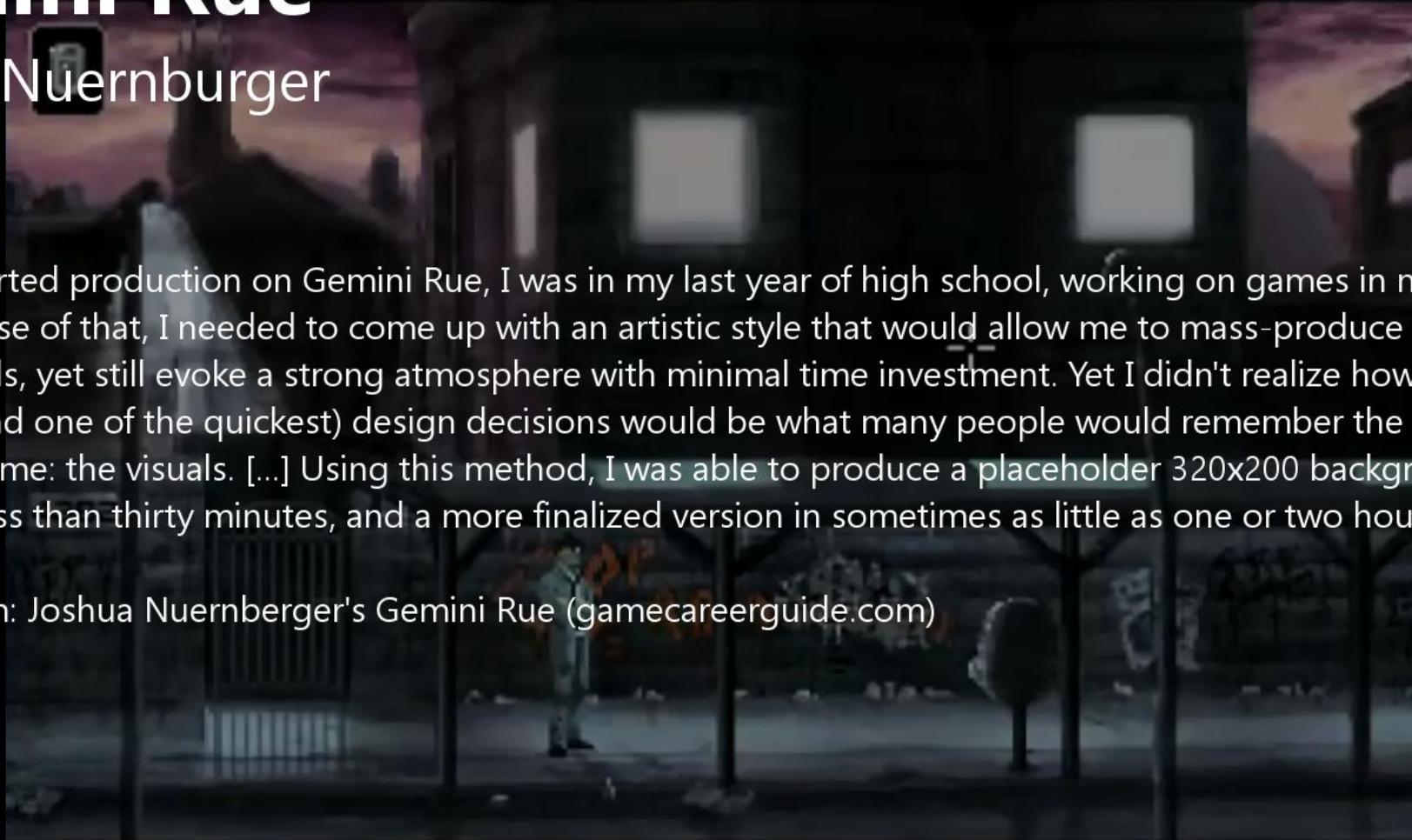


Gemini Rue

Joshua Nuernburger

"When I started production on Gemini Rue, I was in my last year of high school, working on games in my free time. Because of that, I needed to come up with an artistic style that would allow me to mass-produce backgrounds, yet still evoke a strong atmosphere with minimal time investment. Yet I didn't realize how the simplest (and one of the quickest) design decisions would be what many people would remember the most from the game: the visuals. [...] Using this method, I was able to produce a placeholder 320x200 background in probably less than thirty minutes, and a more finalized version in sometimes as little as one or two hours."

Postmortem: Joshua Nuernburger's Gemini Rue (gamecareerguide.com)



ANATOMY

Kitty Horrorshow



CHYRZA



Haunted Cities



Actias



2: Actually making
the game

Month 1: Fun! Easy! Code works!

Month 10: uhhhhhhh....

Month 1 will always be easier, but make sure:

- You actually like/care about the project
- You stick to an actual timetable.

My schedule:

- Worked part time teaching English.
- Did proofreading work too.
- Result: unusual hours, unpredictable schedule.
- Problem: weird schedule, easy to say "I'll do gamedev tomorrow, I'm tired."

My schedule:

A	B	C	D	E	F	G	H
	Mon, 20/11/17	Tue, 21/11/17	Wed, 22/11/17	Thu, 23/11/17	Fri, 24/11/17	Sat, 25/11/17	Sun, 26/11/17
8							
9			Therapy			Weekend, yay!	
10							
11	Lesson (cancelled)		Lesson				
12		Lesson (recurring)	Lesson (recurring)	Meeting (one-off)			
13							Marcel & Isabella
14					Lesson		
15		Lesson (one-off)			Lesson (recurring)		
16							
17							
18							

My schedule:

A	B	C	D	E	F	G	H
	Mon, 20/11/17	Tue, 21/11/17	Wed, 22/11/17	Thu, 23/11/17	Fri, 24/11/17	Sat, 25/11/17	Sun, 26/11/17
8							
9	Work on game in blue slots		Therapy			Weekend, yay!	
10							
11	Lesson (cancelled)		Lesson				
12		Lesson (recurring)	Lesson (recurring)	Meeting (one-off)			
13		Lesson (recurring)					Marcel & Isabella
14					Lesson (recurring)		
15		Lesson (one-off)					
16							
17							
18							

Solution (for me!):

New goal: **try** to work 9am-5pm every weekday (Mon-Fri). If I'm not working at my "real" job, work on the game instead.

(But don't kill yourself meeting this arbitrary goal. Just do your best to hit it most of the time, #selfcare)

Use this system if it helps, or use your own, but make sure you don't wake up one day and realise you haven't worked on your game for 6 weeks.

Remember: you have a roof over your head, so time is not critical (be nice to yourself!), but if you put it off too often you will never finish your game.

An interesting time management idea:



1. Start at the appointed time.
2. Decide what your task is up front.
(what counts as "work")
3. Do only that task.
4. ABSOLUTELY NO:
 - . Email
 - . News
 - . Forums
 - . Discord
 - . Reddit
 - . Interacting with players
 - . Looking up random things
 - . Wandering away
5. Stop at the appointed time.
(AKA: the truly hard part)

Don't Break the Chain: Maintaining Productivity on Your 19th Game
(Jason Rohrer, GDC 2018)



1x



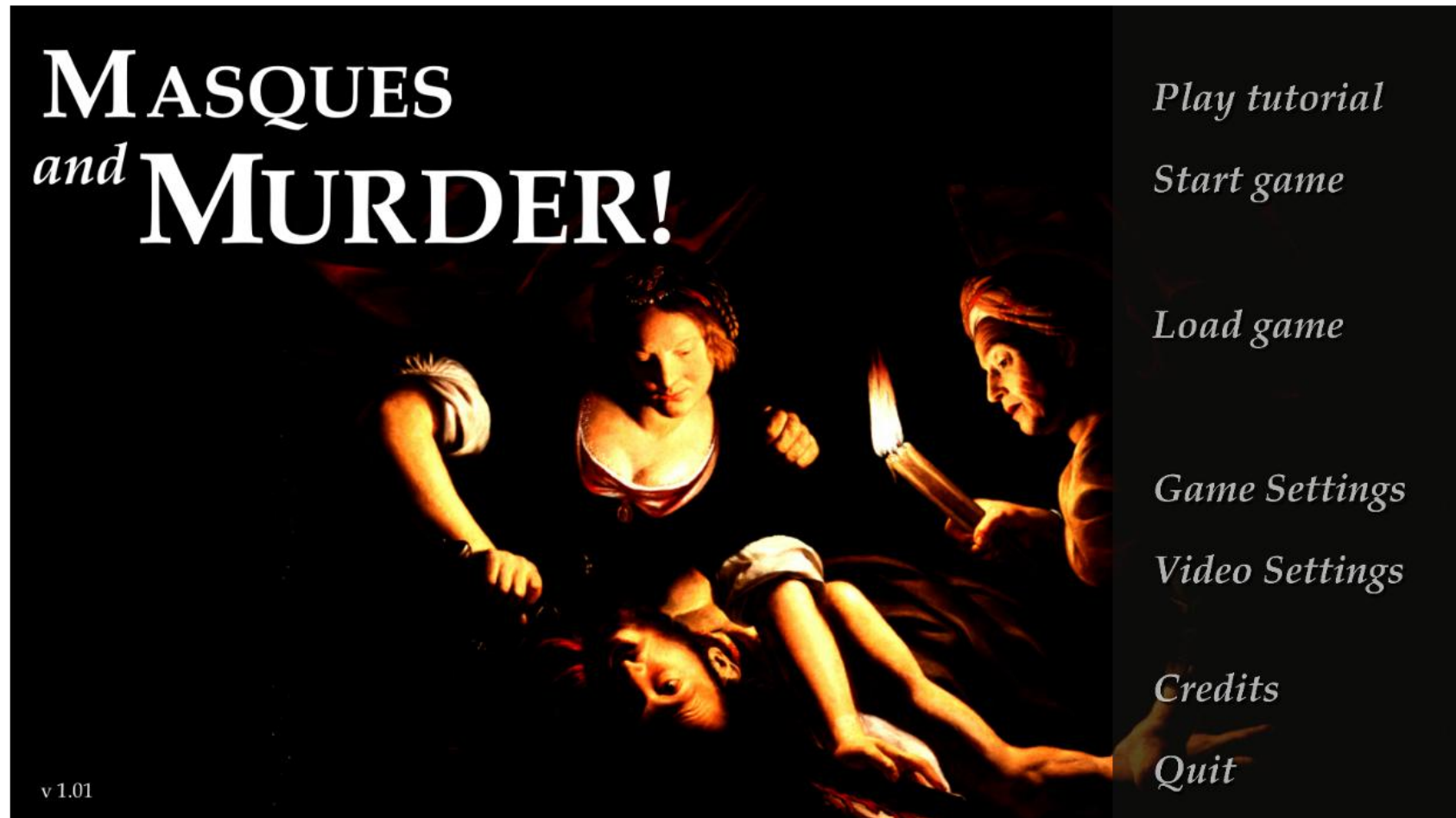
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Jason's other ideas:

- Take breaks every 30 minutes (to interrupt flow, which is actually bad)
- Take loose paper notes
- Only work 5 hours a day, but make them limited and focused
- Keep a chain calendar

Keeping to a schedule meant I was able to finish this:



3: Help, no money!

You have limited time, and limited skills.

Most gamedevs solve these problems with money:
hiring people who perform work (time) in a skill you
don't have (skills).

We've solved the time problem with scope - how to
solve the skills problem?

You could:

- Apply for funding / grants:
 AWS Impulse, Creative Pioneer, Vienna MA7
- Make your own assets / content
- Revenue share agreement
- Hire freelancers ("sometimes the cheapest way to pay is with money.")
- FREE STUFF

FREE STUFF!:

- Not always best quality
- Not unique (people might recognise them?)
- but may be suitable for your needs!

Some free assets are public domain ("Do whatever you want").

Some come with conditions:

cannot be modified, or need an author credit, or can only be used in non-commercial projects.

I'll deal with legal stuff in a moment, but first, here's where I get my assets from.

WARNING: LIST AHEAD

(this will be uploaded on **james-patton.net** in a few days, so don't bother writing it down)

Music:

Cheap:

- audiojungle.net
- premiumbeat.com

Free:

- opengameart.org
- freestockmusic.com
- incompetech.com
- freemusicarchive.org

Sounds: freesound.org

Textures: textures.com

Photos: pixabay.com, pexels.com,
publicdomainpictures.net

Space: NASA, SpaceX

3D models:

- [turbosquid.com](https://www.turbosquid.com)
- [cgtrader.com](https://www.cgtrader.com)
- [free3D.com](https://www.free3d.com)
- Unity asset store (CAREFUL!)

Icons:

- thenounproject.com
- flaticon.com
- [freepik.com](https://www.freepik.com)

Historical paintings/art:

- **Rijksmuseum** (rijksmuseum.nl/en)
- **Getty Museum Open Content** (<http://search.getty.edu/gateway/landing>)
- **National Gallery of Art, Washington** (https://images.nga.gov/en/page/show_home_page.html)
- **The Walters Art Museum** (thewalters.org)

A quick note about copyright:

You can use anything that's in the public domain

BUT!!!!

Just because something is publically available does not mean it is in "the public domain".

"Public domain" means "This piece of work is so old that it's a part of our culture, or the person who owns the rights to use this work has said anyone can use it."

Different countries have different rules about how old something has to be before it becomes public domain; usually it's 70 years after the author's death.

MASQUES *and* MURDER!



Play tutorial

Start game

Load game

Game Settings

Video Settings

Credits

Quit

Skip

All these art assets are public domain.

"Ah! My son, it is clear we acted in haste."

Father





Graziano



Visit

Pensieroso



Visit

Sagaco



Visit

Dance 1

Verses 1

Swordplay 1

Theology 1

Classics 1

Hawking 1

Music 1

Firearms 1

Rhetoric 1

*You feel determined.
Dance is fashionable.
You will be married on day 40.*

Seduction 1

Wait

Morning Day 1 (Thursday)

Next event:

Visit Princess



How copyright works

The musical score for "Beethoven's 5th Symphony" is public domain.

The musical score for "Beethoven's 5th Symphony" is public domain.



Beethoven: Died 1827.

His works entered
public domain in
(1827 + 70)
1897

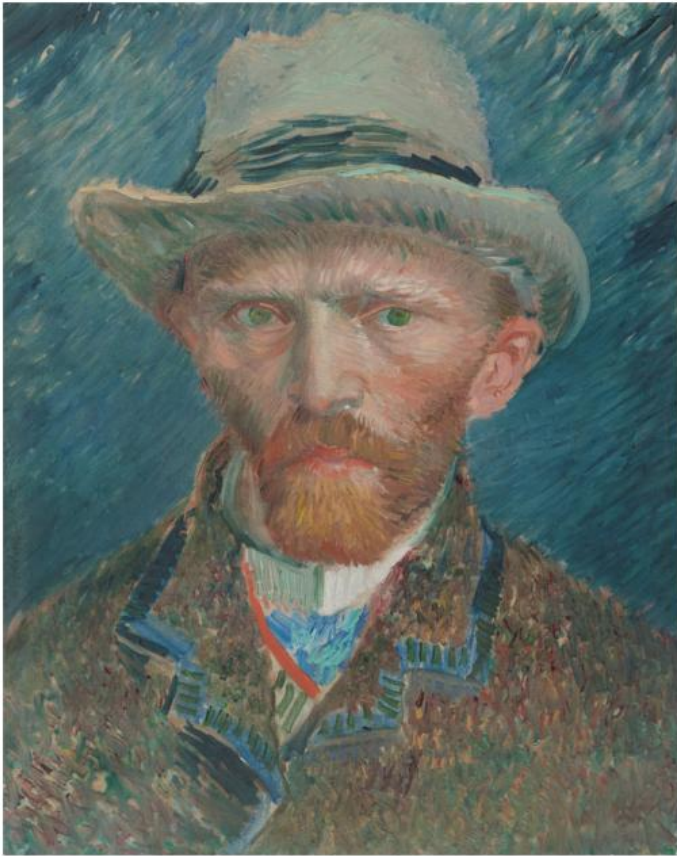
But a recording of an orchestra playing "Beethoven's 5th" is not public domain:

- every player has a copyright on their performance
- also, if this performance was distributed by a third party (eg. a music label or company), they may also have copyright

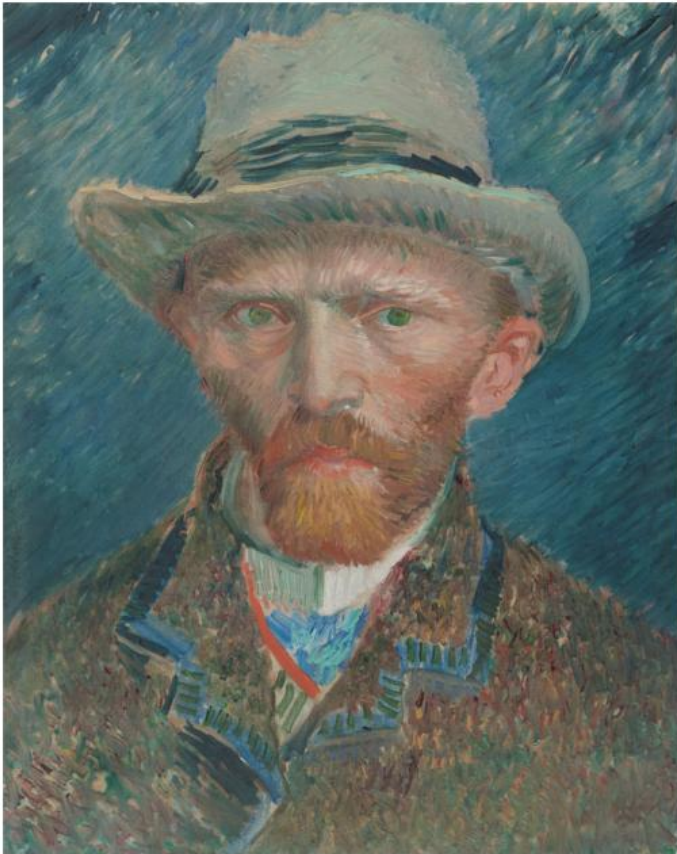
So to freely use music, you need to get permission from the person who created the music (Beethoven) and the people who made the recording (players/publishers).

This gets weird with art.

¿*~*?

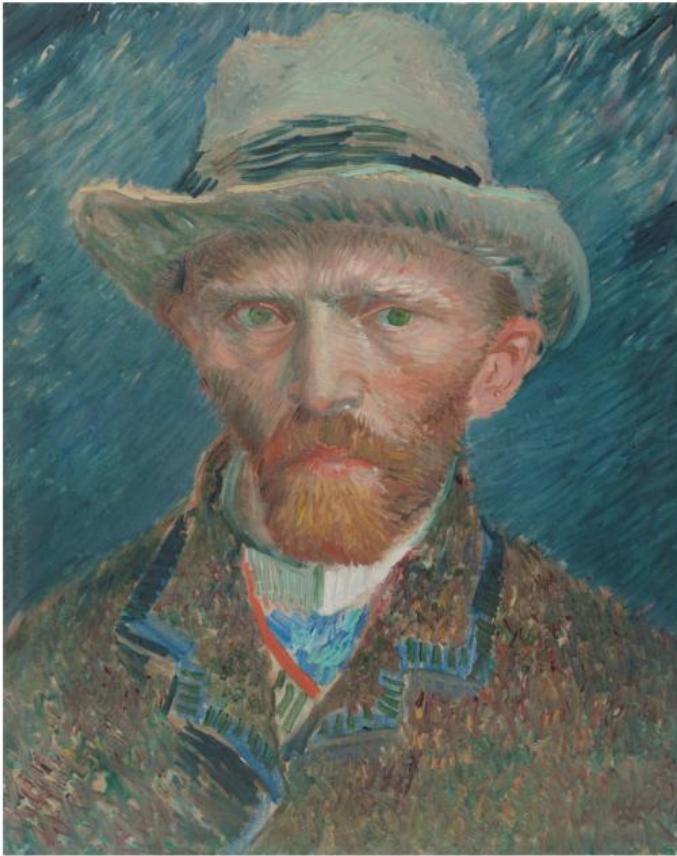


Vincent van Gogh's "Self portrait",
painted in 1887.



This is a photograph of Vincent van Gogh's "Self portrait", painted in 1887.

...so who took the picture?



This is a photograph of Vincent van Gogh's "Self portrait", painted in 1887.

...so who took the picture?

It was the Rijksmuseum, who say, on their website, that you can use this and it's public domain. (Phew!)

Not all museums are this nice.

Gmail

COMPOSE

Inbox (56)
Starred
Important
Sent Mail
Drafts (126)

Categories

- Social (8)
- Promotions (22)
- Updates (559)
- Forums

Copyright and commercial use query KHM 1773/14

15 of 15

Inbox x

[redacted]@khm.at

18/08/2014

to me

Dear Mr. Patton,

the copyright concerns the photos not the objects themselves. You have to request the permission from the source of your available images. In case of KHM, respectively you need our photos, please see attached form to fill in!

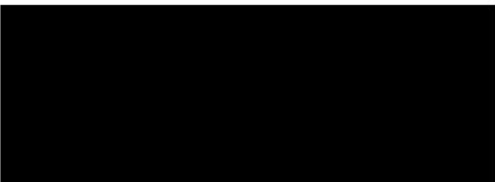

We shall send offer and agreement by return.

Yours sincerely,

[redacted]

head of reproduction department and image library

Kunsthistorisches Museum Wien



Public domain is not the only way to go. Lots of assets are available online using Creative Commons licensing.

CC0: public domain

CC BY: attribution

CC BY-SA: attribution, share-alike

CC BY-ND: attribution, no derivatives

CC BY-NC: attribution, non-commercial

Bottom line: they can be tricky to find and appropriately credit, but resources are out there. **If your game idea is scoped cleverly, you don't need a team.**

When you find a resource you want to use, double-check the copyright information to make sure you can use it safely! **Be very very careful of copyright!**

I don't want to be the person who made you commit a crime :(

KEEP

KEEP A

KEEP A LIST

Any "Creative Commons Attribution" assets MUST be credited. Keep a list of everything you'll need to credit - MUCH easier than finding them again later

Also good to keep track of all public domain assets for peace of mind / double-checking later, eg. "Can I use this asset in marketing materials safely?", "Wait, where did this asset come from?"

So: some assets you can make yourself, some you can get for free, some you might spend a little freelancer money on or might pay for with revenue share or get from cool friends

Again: make sure your project **plays to your strengths/skills**, so **you** can make most of the assets. Free assets can flesh out a game but you'll be doing most of the work yourself.

How I used this to make *Spinnortality*, my cyberpunk management game:

OI, PLAY THE TRAILER NOW

IT'S TRAILER TIME

TRAIL THAT THANG

The image features a dark background with a glowing cyan circuit board pattern. In the center, three silhouettes of business professionals (two men and one woman) are shown against a faint, glowing globe. The text 'Spinmortality' is prominently displayed in the foreground, with 'Spin' in white and 'mortality' in cyan. Below it, the subtitle 'cyberpunk management sim' is written in a smaller, cyan font.

Spinmortality

cyberpunk management sim

Free for commercial use

Asset store

(space skybox)

Spinmortality

cyberpunk management sim

Icons: free with attribution



Credits:

Icons made by Freepik (freepik.com), Zlatko Najdenovski, Gregor Cresnar, SimpleIcon, Chanut, Smashicons, and Yannick from www.flaticon.com are licensed by Creative Commons BY 3.0. Some minor changes were made.

Icons made by Andrian Valeanu, Yannick Lung, and Valera Zvonko from www.iconfinder.com are licensed by Creative Commons BY 3.0

Link to license: <https://creativecommons.org/licenses/by/3.0/>

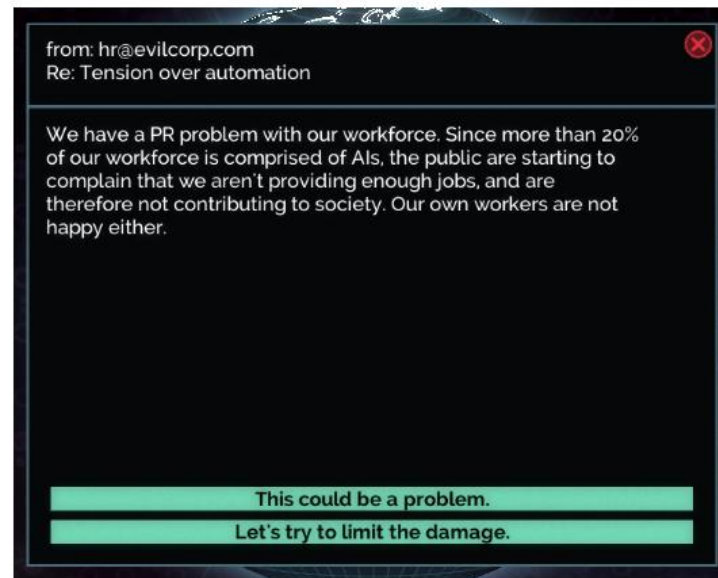
Hourglass icon by Elegantthemes, licensed under GNU General Public License. (This means I will have to change this icon for the final game since derivative works must be distributed freely.)

Icons made by WPZOOM are licensed by Creative Commons (Attribution-Share Alike 3.0 Unported).

Link to license: <https://creativecommons.org/licenses/by-sa/3.0/>

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Text is easy for me, so there's a lot of it.



from: hr@evilcorp.com
Re: Long-term problems for enhanced workers

We're starting to see some issues with our augmented workers. Some are complaining of health problems, mood swings, psychological issues.

Should we investigate further?

It's our responsibility to care for our augmented workers.

I don't see how this affects us.

from: hr@evilcorp.com
Re: Tension over automation

is a PR problem with our workforce. Since more than 20% of our workforce is comprised of AIs, the public are starting to think that we aren't providing enough jobs, and are therefore not contributing to society. Our own workers are not suffering either.

This could be a problem.

Let's try to limit the damage.

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Re: Birthclone opportunity

Our birthclone technology currently uses non-conscious clones: they're born in a vat and stay in a coma their entire lives.

However, our research suggests clones produce healthier organs if they are conscious. We would like to suggest that the clones be raised as conscious humans in a secure environment and kept as prisoners until they can be harvested.

This would increase this technology's profitability significantly.

Do it.

No. Frankly, that sounds barbaric.

from: hr@shinra.com
Re: Healthcare policy

Since the international YourCare act of 2025, healthcare has been provided by employers, never by governments. We need to periodically review our healthcare policy for our employees. We are legally mandated to provide a minimum level of healthcare.

- We'll provide nothing but the best healthcare!
- Just the bare minimum.
- I'm sure this 'minimum healthcare' infringes on our rights...

from: hr@
Re: Long-

We're sta
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from: pr@shinra.com
Re: Product PR issue

People are complaining our 'Designer Organs' are too expensive for everyday people - that we're catering to the 0.01%.

It's our responsibility to care for our augmented workers.

I don't see how this affects us.

This co

Let's try

Cut the price in half as a show of good faith.

Cut the price by 20%.

So what if we are catering to the 0.01%?

nce. Since more than 20%

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from: ayisha@ayishaabbasicom.com
Re: I don't want to creep on my workers

Hi Nihan,

Ayisha here. So you just pushed through some business reforms here in Russia.

Businesses can now spy on employees. Manipulate them. Feed them drugs and alter their brain chemistry.

I'm a small business owner but I do NOT want these powers. And what happens if one day my future employer can alter who I am at a fundamental level?

Ayisha x

Sorry, we have a bold new vision and those laws were in the way.

I'll use my political resources to fix this.

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Re: Product PR issue

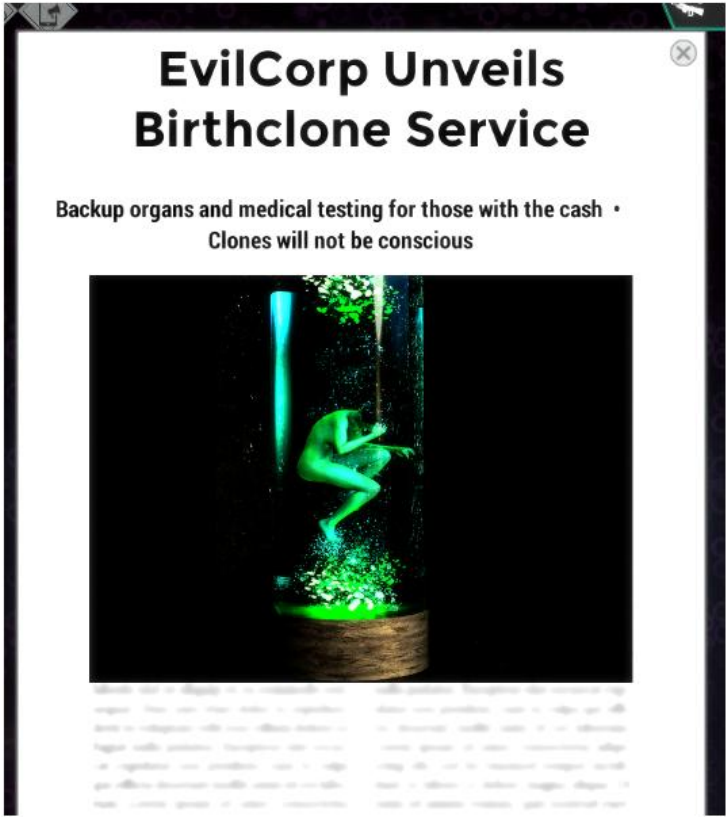
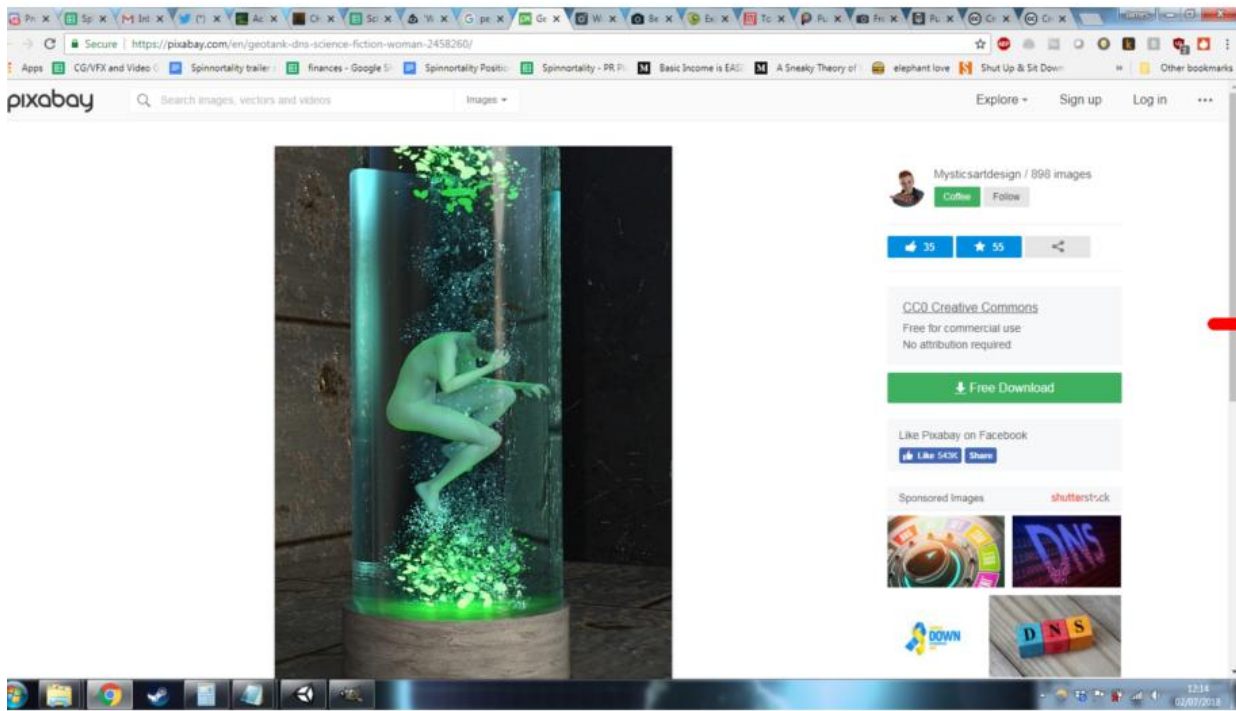
People are complaining our 'Designer Organs' are too expensive for everyday people - that we're catering to the 0.01%.

Cut the price in half as a show of good faith.

Cut the price by 20%.

So what if we are catering to the 0.01%?

It's our



4: I've got a game,
now what?

Get into the habit of posting on social media from day 1 of development.

Set up a blog / landing page. If people google your game, give them a place to learn more. Make sure it has a newsletter.

Keep coming to these meetups, or other gamedev events. Networking is unpredictable, but I've got:

- chance to showcase games
- composer
- chance to give this talk
- internship offer
- publisher contact
- advice and help, especially from Michael ^_^"
- contact with people who want me to succeed

Decide what you'll do with the game:

Free release?

Pay-what-you-want?

Kickstarter?

Put it on Steam?

Raise awareness of important issue?

Take it to game conventions?

Note: this can change from your initial goal, and only some of these require a finished game!

Once you've decided:

Tell everyone about the game!

Tell your blog/newsletter followers!

Tell the press! (Put together a BIG press list first.)

Tell streamers and Let's Players!

Tell facebook and social media!

Tell podcasts!

Tell the game dev meetup! :D

Then, onto the next game!

If you're lucky, you'll have achieved whatever goal you set out to achieve.

If you're not, at least you have something for your portfolio and learned more about making games.

Just because you made enough money to go full time doesn't mean you should.

If that's not your goal, good for you, I'm glad your day job is fun!

FIN

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