

The increasing accessibility of game development

drivers and impact

Linsey Raymaekers

linseyray.github.io

 [@linsey_ray](https://twitter.com/linsey_ray)

first of all...

good news...

everyone
can make video games!

The Last Guardian's Designer Explains How He Stayed Motivated For Nine Years



Patrick Klepek

6/22/16 4:30pm • Filed to: THE LAST GUARDIAN ▾



47.7K



53



27

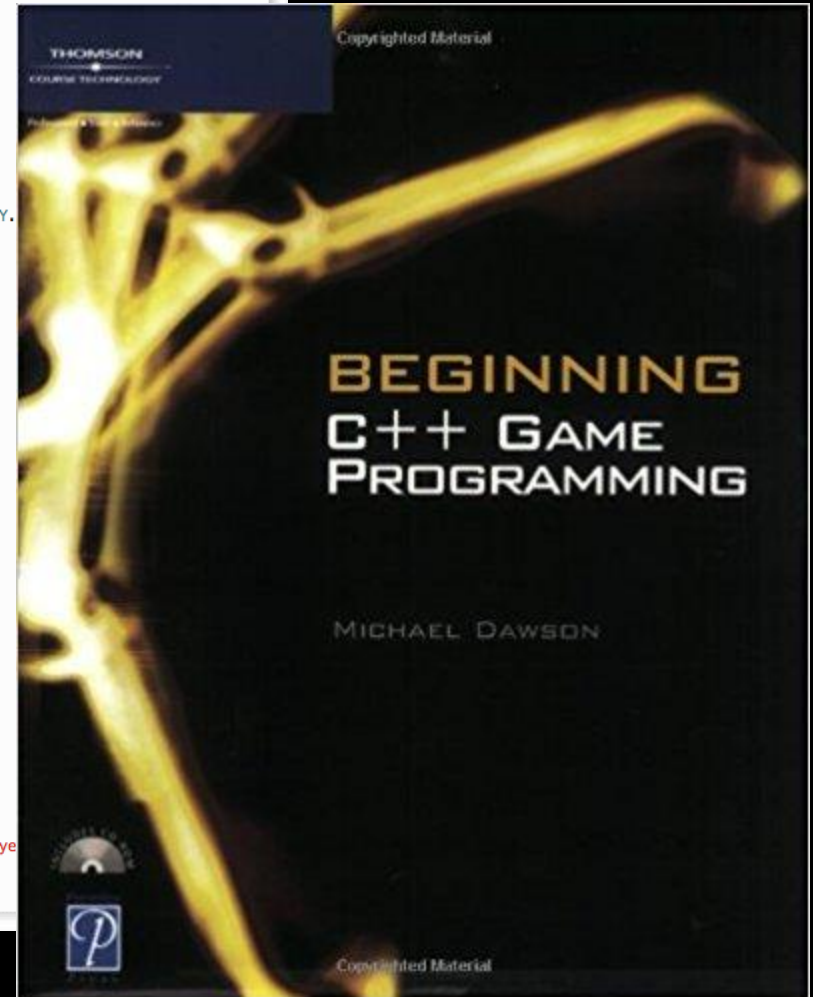


it doesn't take years or months

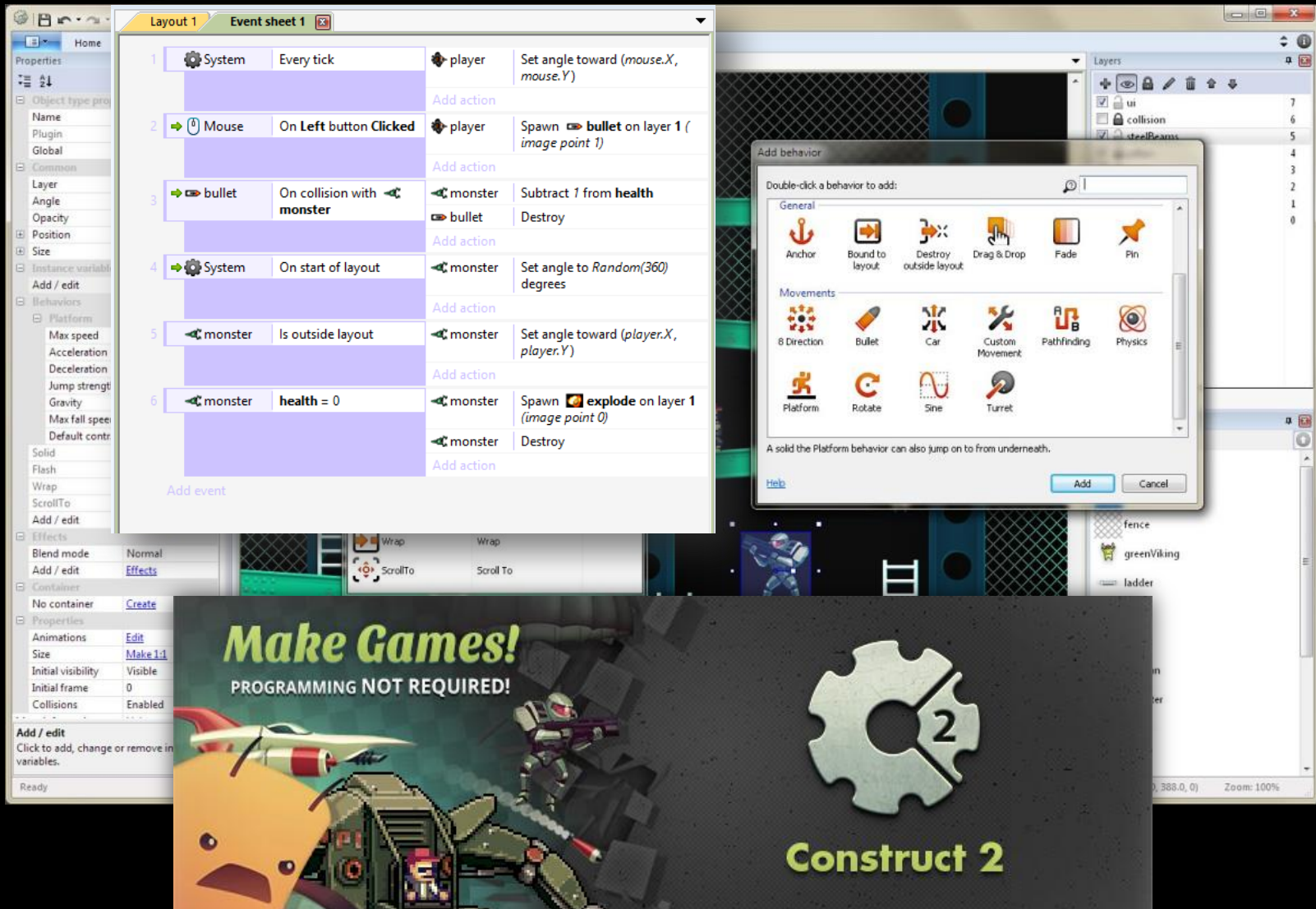
(depending on scope, time invested)

```
MonsterCheckers.xcodeproj — CheckerBoard.m
Xcode
Breakpoints
MonsterCheckers > CheckerBoard.m > No Selection

26
27 @implementation CheckerBoard
28
29 #pragma mark -
30 #pragma mark Public methods
31
32 @synthesize currentTeam,movingPiece;
33
34 -(CheckerPiece*) getPieceAtXY:(CGPoint)xy
35 {
36     // look for piece at this xy
37     if( [CheckerBoard isValidXY:xy] )
38     {
39         for(CheckerPiece* piece in checkerPieces)
40         {
41             if( [piece isAlive] && (int)piece.currentXY.x == (int)xy.x && (int)piece.currentXY.y == (int)xy.y )
42                 return piece;
43         }
44     }
45     // no piece there
46     return nil;
47 }
48
49 -(void) killPieceAtXY:(CGPoint)xy attacker:(CheckerPiece*)attacker
50 {
51     CheckerPiece* piece = [self getPieceAtXY:xy];
52     if( piece != nil && attacker != nil && piece != attacker && piece.team != attacker.team )
53     {
54         // start attack animation
55         [attacker animateAttack:[CheckerBoard directionFromXY:attacker.currentXY to:xy]];
56         // launch death sequence
57         [piece animateDeath:[CheckerBoard directionFromXY:xy to:attacker.currentXY]];
58     }
59 }
60
61 // animate this move point
62 -(void) createMovePoint:(CGPoint)xy
63 {
64     CGPoint pos = [self xyToPosition:xy];
65     // if not already a move point
66     for(CCSprite* sprite in movePoints)
67     {
68         if( CGPointEqualToPoint(sprite.position, pos) )
69             return;
70     }
71     // create move point sprite
72     CCSprite* sprite = [[CCSprite alloc] initWithSpriteFrameName:@"spark-fountain-groundflow-ye"];
73     sprite.position = ccp(pos.x, pos.y + [KITApp scale:20.0f]);
74     sprite.scale = 1.33f;
75     sprite.opacity = 164;
76 }
77
78
79
80
```

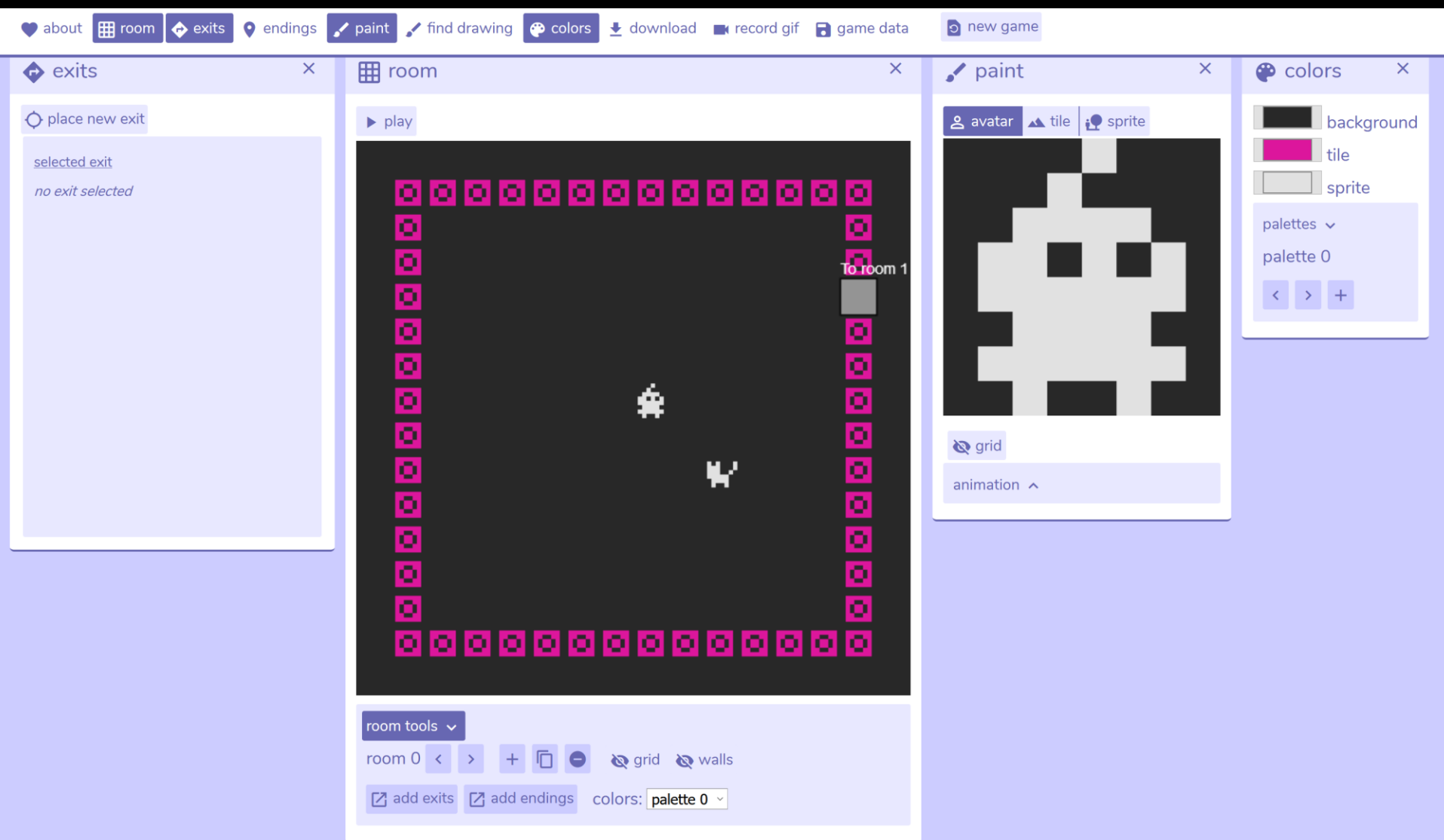


coding is not necessary
(unless you want to)



Construct 2
scirra.com/construct2

visual scripting



Bitsy

<https://ledoux.itch.io/bitsy>

web tools

Ready to start creating?

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Ori and the Blind Forest by Moon Studios

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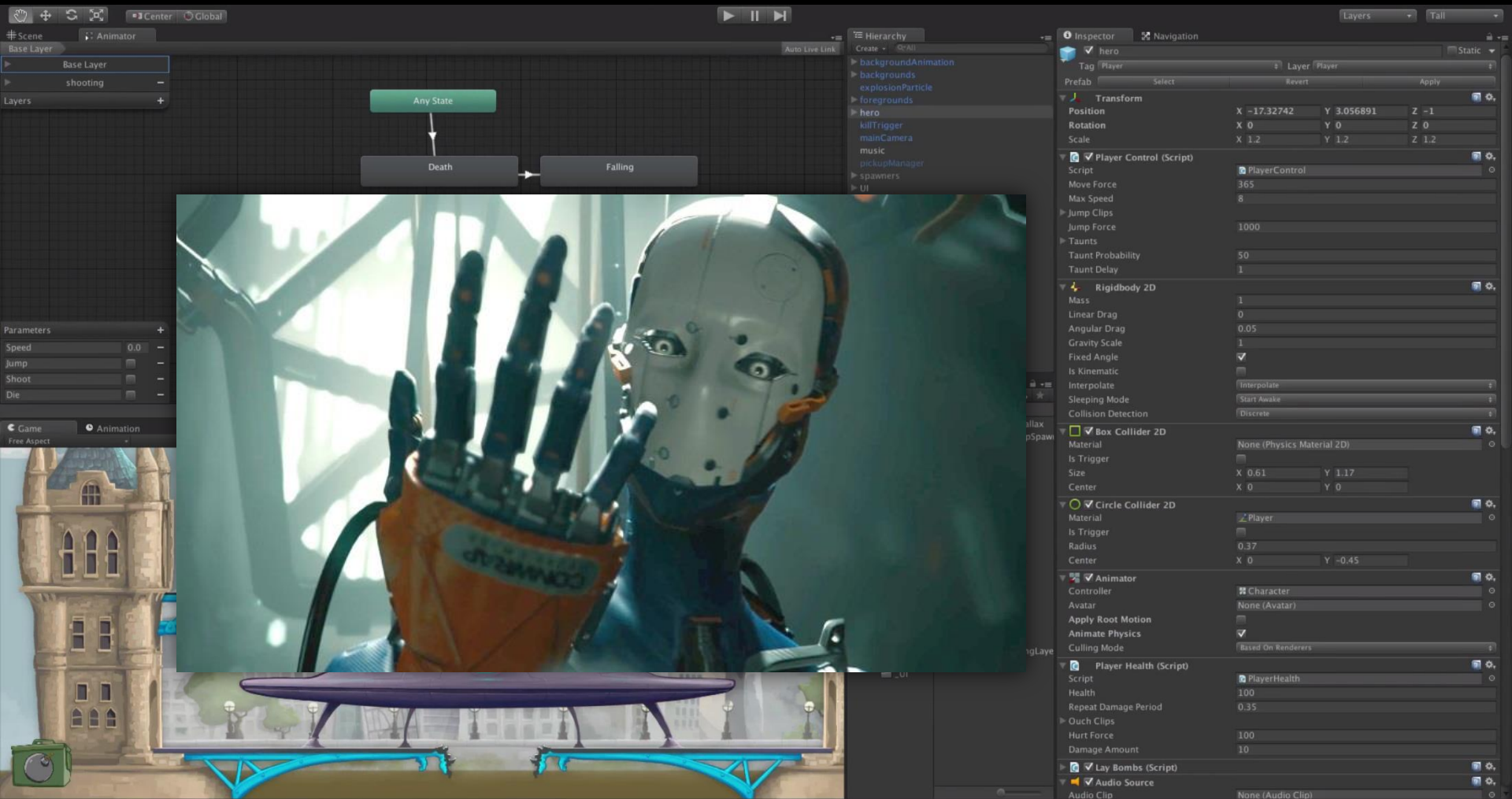
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- All the features of Plus
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Unity3D

unity3d.com

game engines are free



Unity3D
unity3d.com

Adam real-time rendering demo:
youtube.com/watch?v=OoBZRN8CiHg



Scratch

scratch.mit.edu/

tools for kids

analogy:
photography

EASTMAN KODAK CO^S
BROWNIE
CAMERA \$1

The Brownie Camera
makes pictures 2 1/4 x 2 1/4 inches.
Loads in daylight with our six exposure film cartridges, and is so simple that it can be easily

Operated by any School Boy or Girl.

Fitted with fine Meniscus lenses and our improved rotary shutter for snap shots or time exposures. Strongly made, covered with imitation leather, has nicked fittings and produces the best results.

Forty-four-page booklet giving full directions for operating the camera, together with chapters on "Snap Shots," "Time Exposures," "Flash Lights," "Developing" and "Printing," free with every instrument.

Brownie Camera, for 2 1/4 x 2 1/4 pictures	. \$1.00
Transparent-Film Cartridge, 6 exposures, 2 1/4 x 2 1/4	. .15
Paper-Film Cartridge, 6 exposures, 2 1/4 x 2 1/4	. .10
Brownie Developing and Printing Outfit	. .75

THE BROWNIE CAMERA CLUB OF AMERICA
EVERY boy and girl under sixteen years of age should join the Brownie Camera Club of America. Fifty Kodaks, valued at over \$500.00, will be given to members of the club as prizes for the best pictures made with the Brownie Cameras, and every member of the club will be given a copy of our Photographic Art Brochure. No initiation fees or dues if you own a Brownie. Ask your dealer or write us for a Brownie Camera Club Constitution.

Eastman Kodak Co., Rochester, N. Y.

Send a dollar to your local Kodak dealer for a Brownie Camera. If there is no Kodak dealer in your town, send us a dollar and we will ship the camera promptly.

Brownie camera 1900



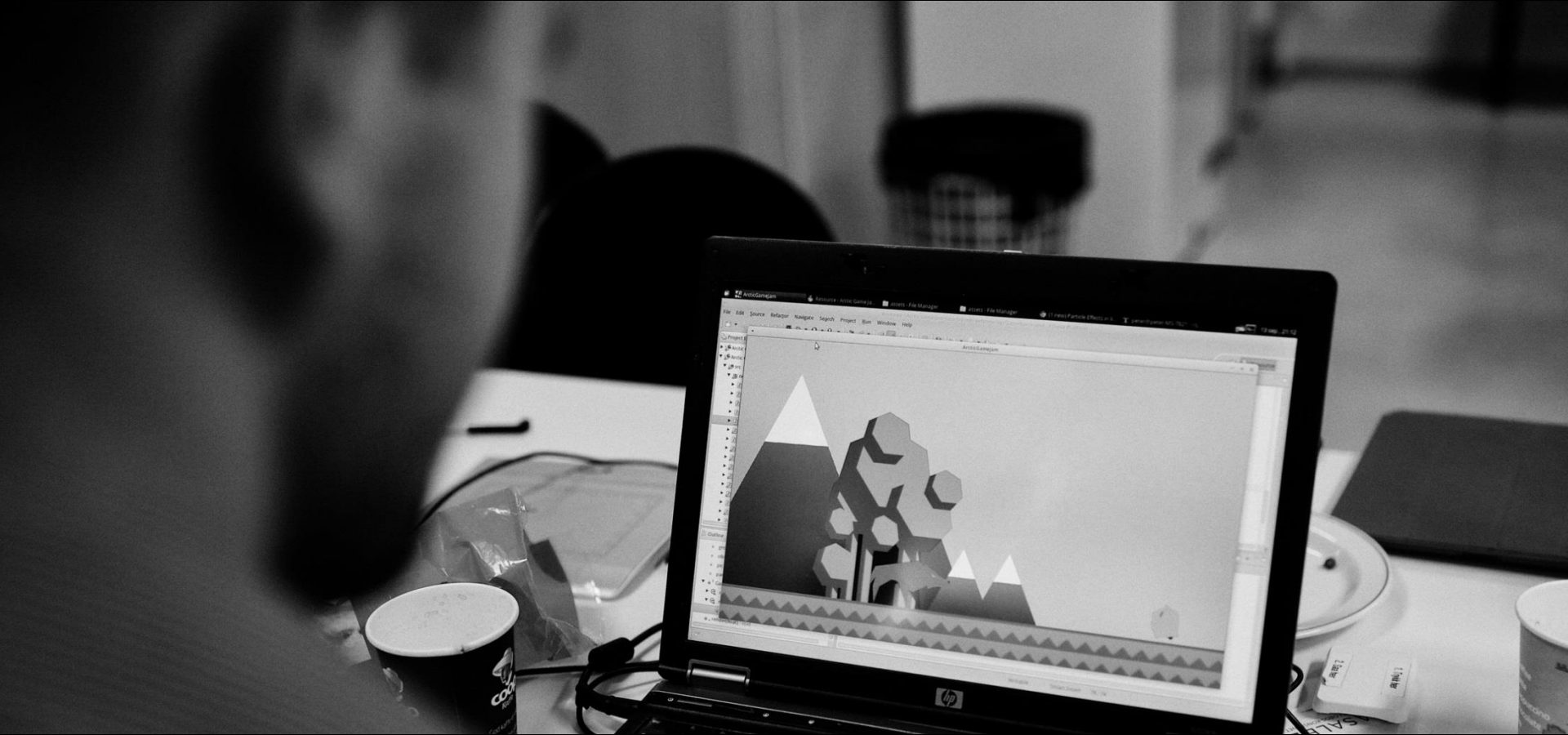
low cost, simple
no dark room
no chemicals
snapshot pictures



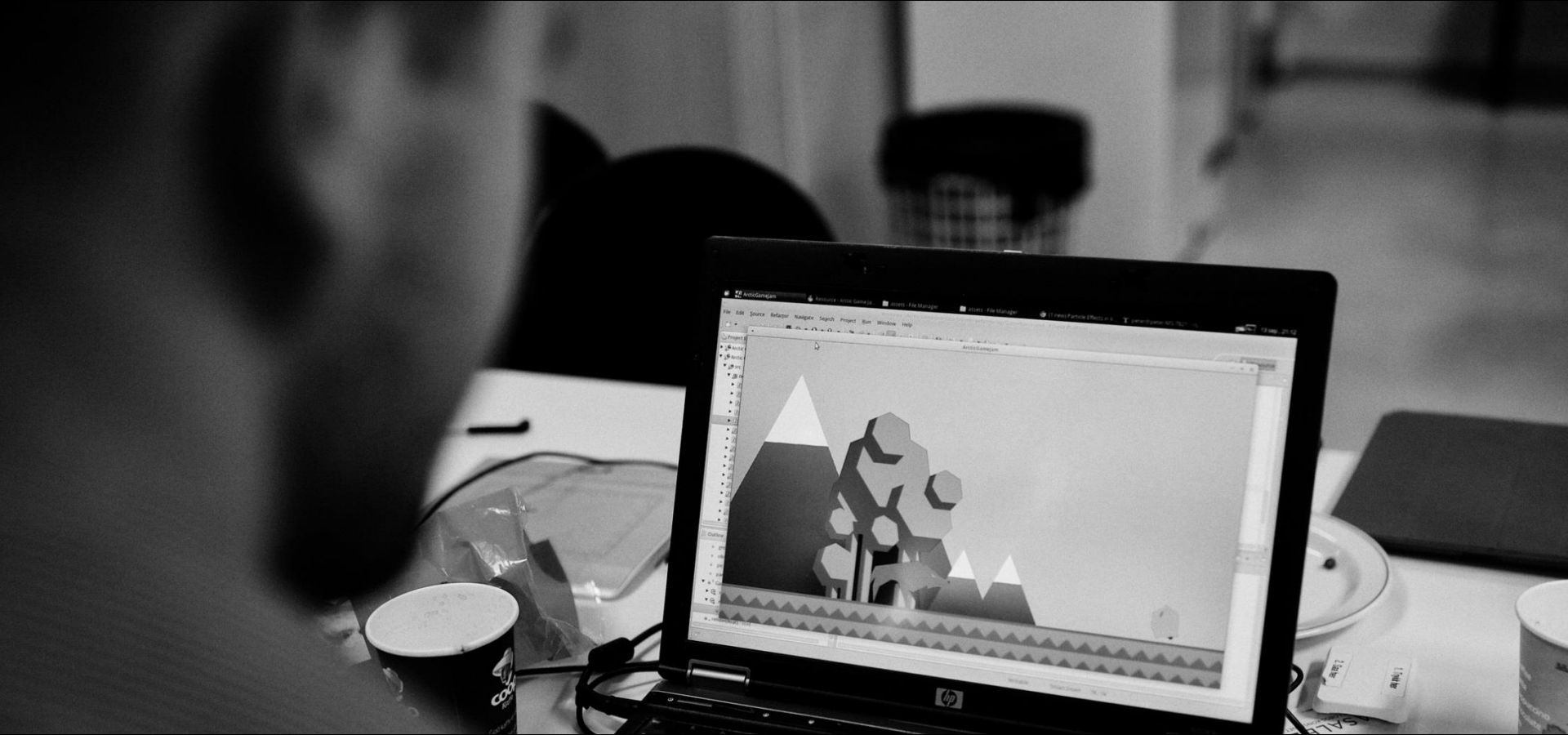
a lot more people
are making video games



nordicgamejam.org



game development
as individual pursuit



game development
as individual pursuit

= focus
of this talk



game development as self-expression



self-expression in other media

THE INDIAN SERENADE

by Percy Bysshe Shelley

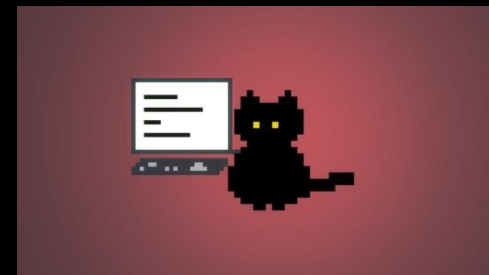
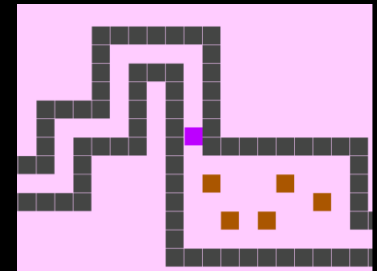
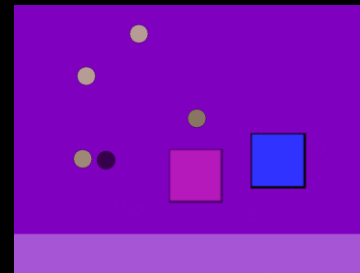
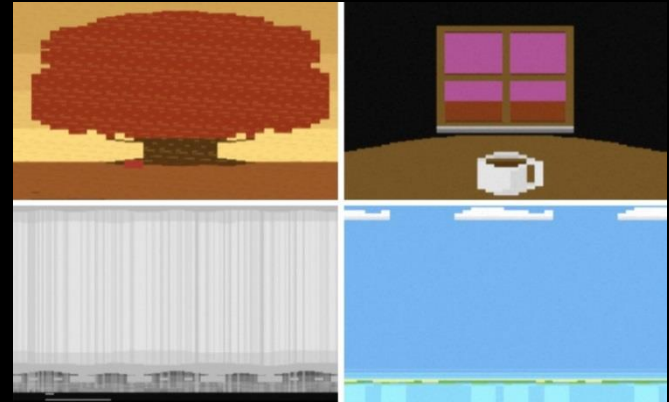
I arise from dreams of thee
In the first sweet sleep of night,
When the winds are breathing low,
And the stars are shining bright:
I arise from dreams of thee,
And a spirit in my feet
Hath led me—who knows how?
To thy chamber window, Sweet!

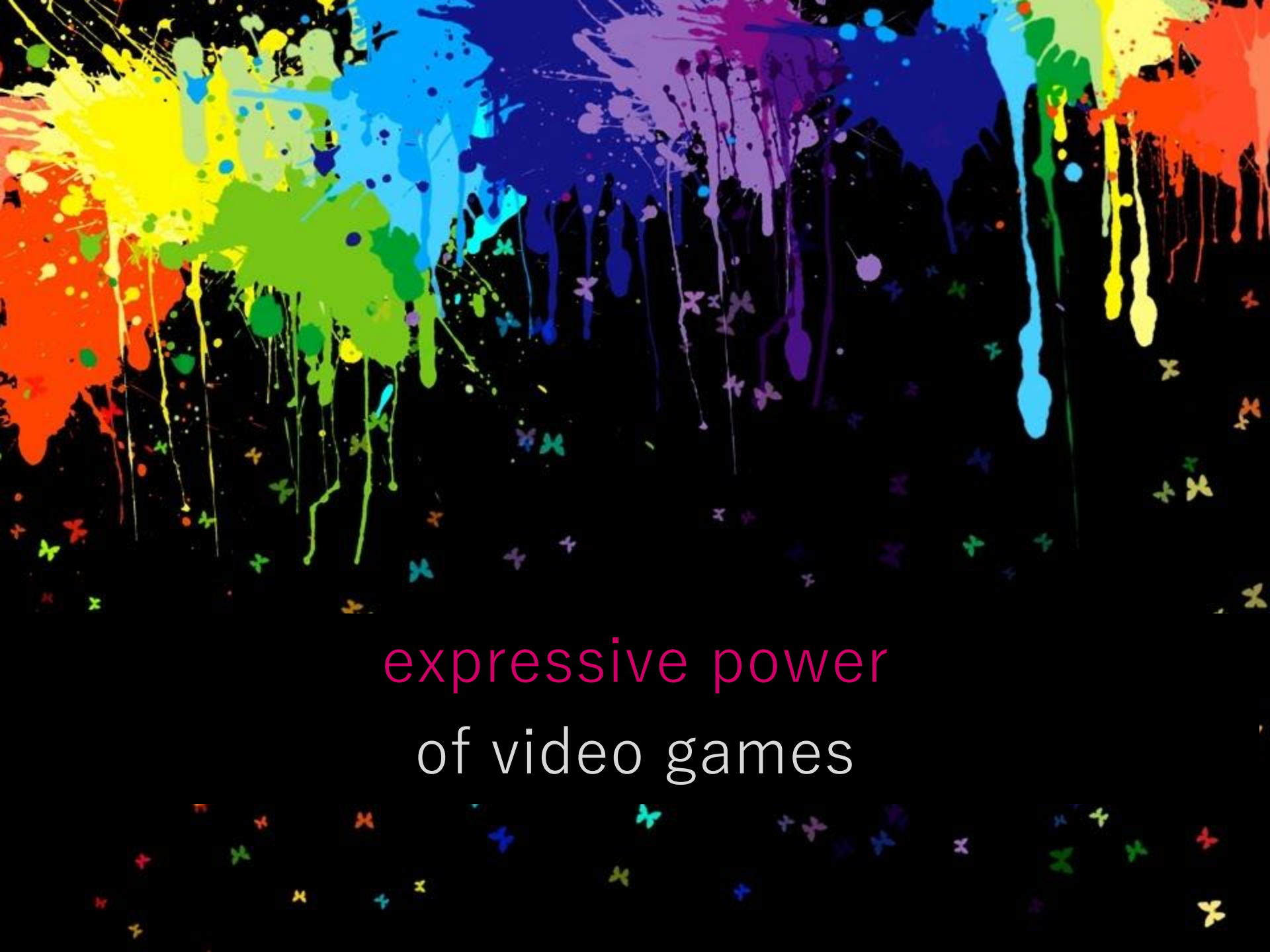
The wandering airs they faint
On the dark, the silent stream—
The Champak odours fail
Like sweet thoughts in a dream;
The Nightingale's complaint,
It dies upon her heart;—
As I must on thine,
Oh, belovèd as thou art!

Oh lift me from the grass!
I die! I faint! I fail!
Let thy love in kisses rain
On my lips and eyelids pale.
My cheek is cold and white, alas!
My heart beats loud and fast;—
Oh! press it to thine own again,
Where it will break at last.

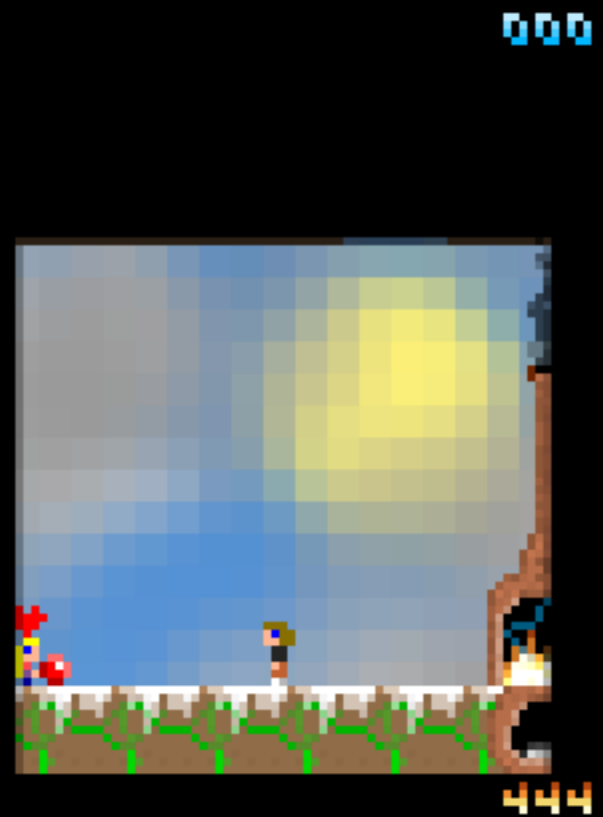


self-expression in video games





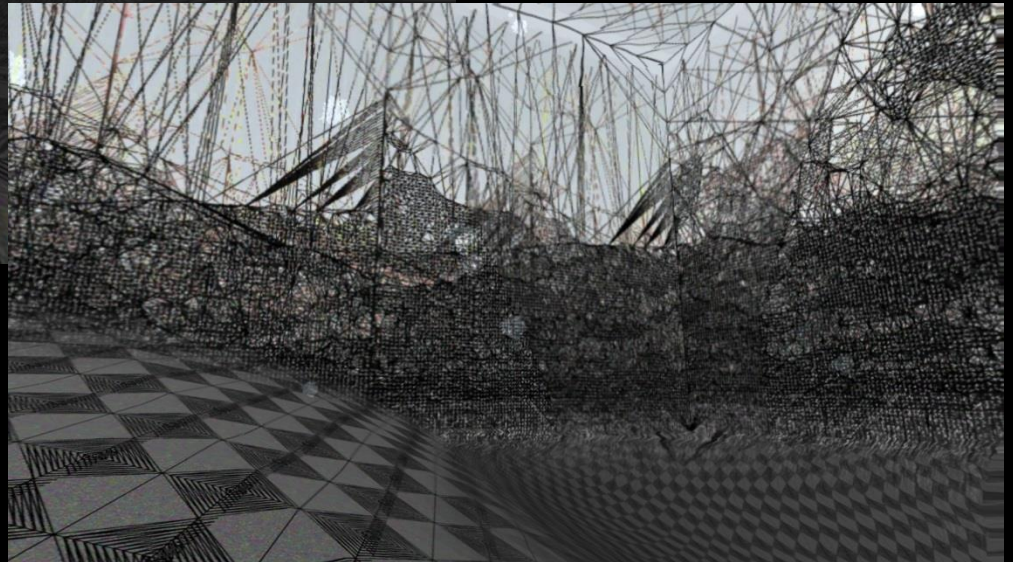
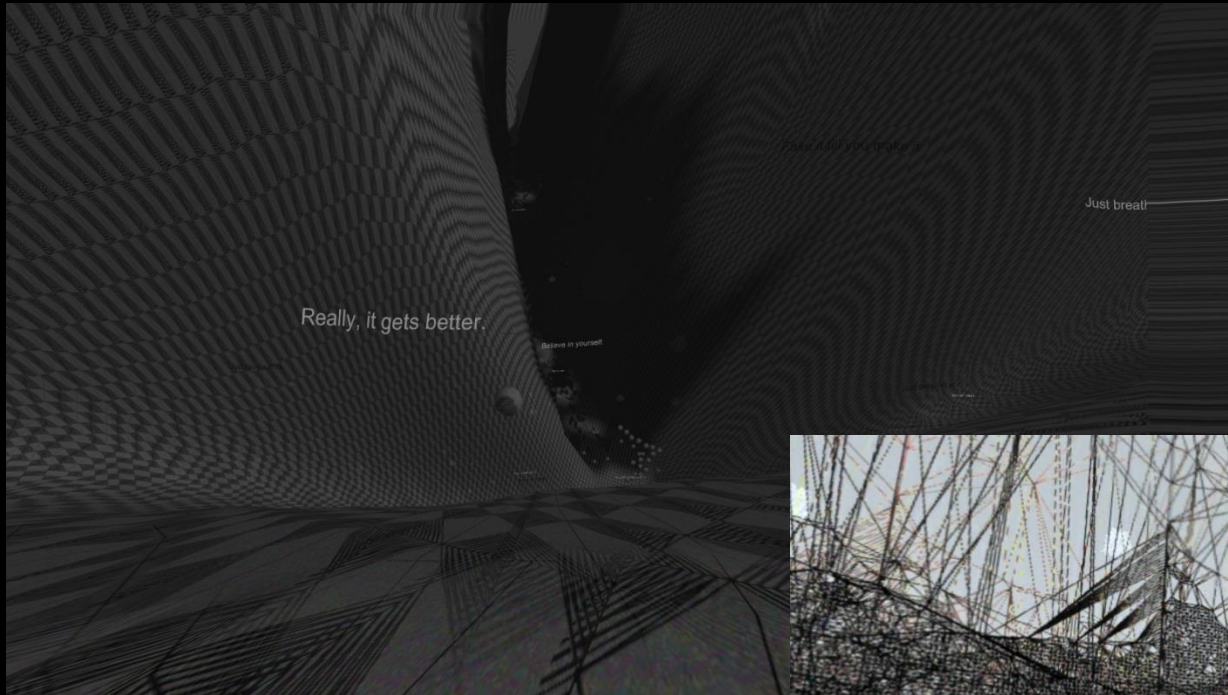
expressive power
of video games



Gravitation Jason Rohrer
hcsoftware.sourceforge.net/gravitation/

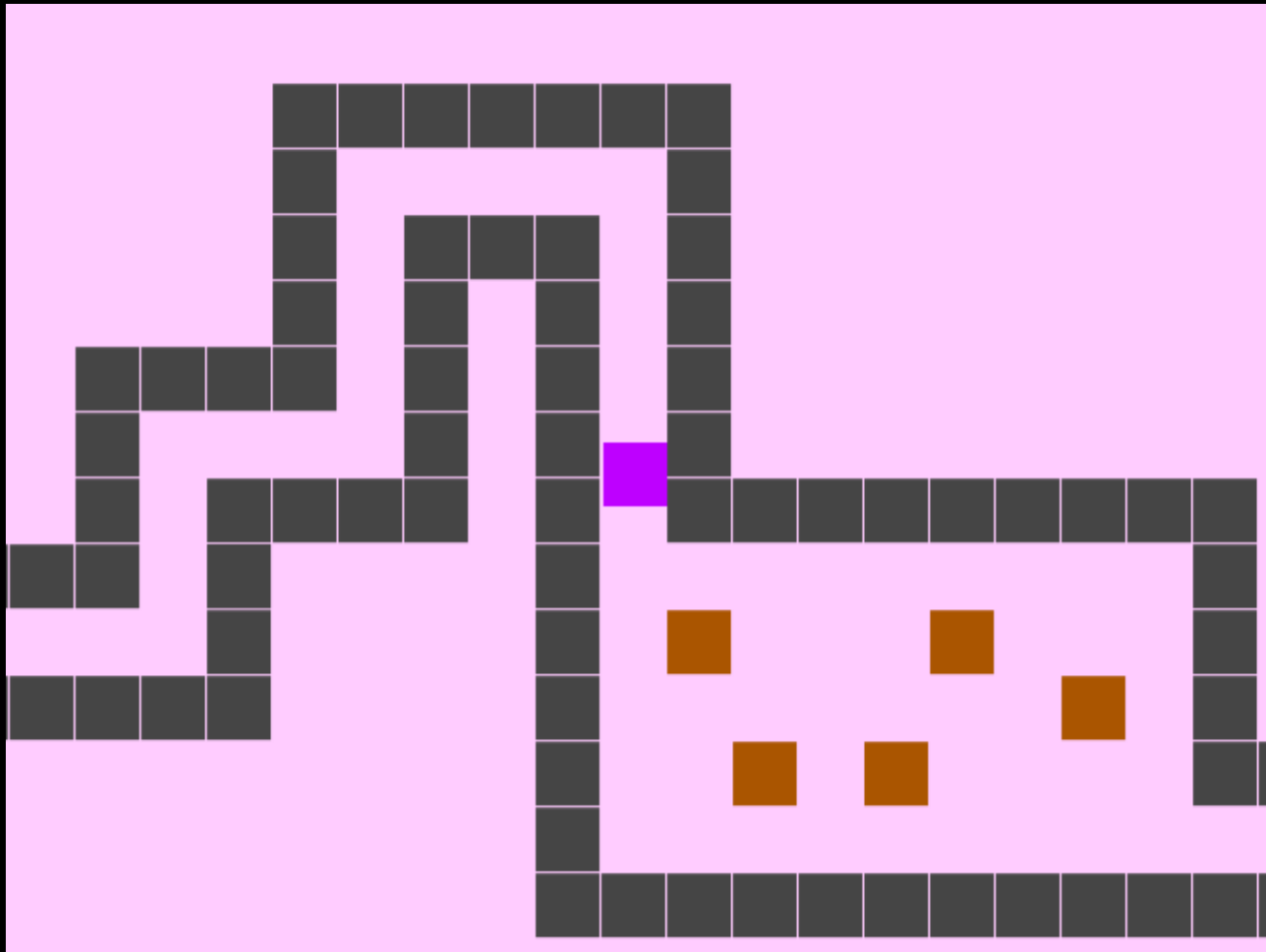


What Now? Arielle Grimes
ariellegrimes.itch.io/what-now



Depression simulator

parallaxvisions.itch.io/depression-simulator



LIM Merritt Kopas
a-dire-fawn.itch.io/lim

story



internal
experience



story comes from player

video games as simulations



video games as simulations



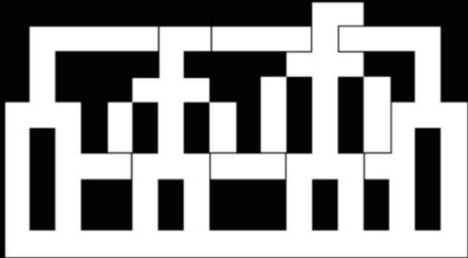
video games
simulating mental processes



other examples

queer expression

YOU AREN'T BORN THAT
WAY, THAT'S OBVIOUS. IT'S
NOT HOW IT WAS MEANT
TO BE.



Talks With My Mom Vaida Plankyte
voidap.itch.io/talks-with-my-mom

Oh my god, look. Is that a boy or a girl?



Mainichi Mattie Brice
mattiebrice.com/mainichi/



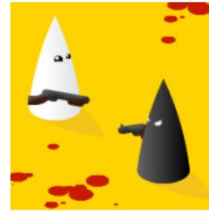
Dys4ia Anna Anthropy
w.itch.io/dys4ia

political expression



ABOUT BLOG PRESS GIGS CONTACTS TWITTER

CASUAL GAMES FOR PROTESTERS



game /gām/
arbitrary con

in general: personal games



Lieve Oma Florian Veltman
vltmn.itch.io/lieve-oma



That Dragon, Cancer Numinous Games
thatdragoncancer.com

video games as vehicles
to share experiences

video games as vehicles
to share experiences

creator ⇔ consumer

A night sky filled with stars and constellations. In the foreground, a satellite dish is mounted on a hill, with a small car parked nearby. The scene is silhouetted against the dark sky.

video games as a medium for communication





video games as a medium
for communication



not just entertainment!



variety in format

book series

novel

....

literature

short story

poem

longform game

shortform game

...

video games

episodic games

microgame



variety in format content

book series

novel

....

literature

short story

poem

longform game

shortform game

...

video games

episodic games

microgame

Manifestos

- [Realtime Art Manifesto](#), *Tale of Tales*
- [Not a Manifesto](#), *Michaël Samyn*
- [rejecta](#), *Pietro Righi Riva*

Articles

- [Video Games Are Boring](#), *Brie Code*
- [Games could learn a thing or two from confessional poetry's history](#), *killscreen.com*
- [The Unnamed Medium](#), *notgames.org*
- [Game Rules as Art](#), *Rod Humble*
- [A series of inputs and outputs](#), *killscreen.com*
- [A new future for video game consoles?](#), *Michaël Samyn*
- [In Defence of Criticism: The Close Reading](#), *Lana Polansky*

Talks

- [Conveying personal and universal truths through game design](#), *Manveer Heir*
- [Designing Monument Valley: Less game. More experience](#), *Ken Wong*
- [Evoking emotions and achieving success by breaking all the rules](#), *Thomas Grip*
- [Theories Behind Journey](#), *Jenova Chen*
- [Am I Asking Too Much?](#), *Jenova Chen*
- [A case for mundane stories in games](#), *Florian Veltman*
- [Blink and you'll miss it: a quick look at microgames](#), *Vaida Pankyte*

More at
poeticvideogames.tumblr.com/recommended

Tale of Tales



real-time art manifesto

tale-of-tales.com/tales/RAM.html

2006

notgames

notgames.org/blog/2010/03/19/not-a-manifesto/

2010

“The question is not whether videogames are art. **The question is how can we make good art with the medium of videogames.**”

Notgames proposes that one direction of exploration may be to abandon the idea that what we make, should be a game. To approach the medium with an open mind.”

More at
poeticvideogames.tumblr.com/recommended

video games

important medium for communication

video games
important medium for communication

- mode of expression
- experience of content

different from other media

video games have outgrown their name

video games have outgrown their name



video games

'fun'

video games have outgrown their name



video games have outgrown their name



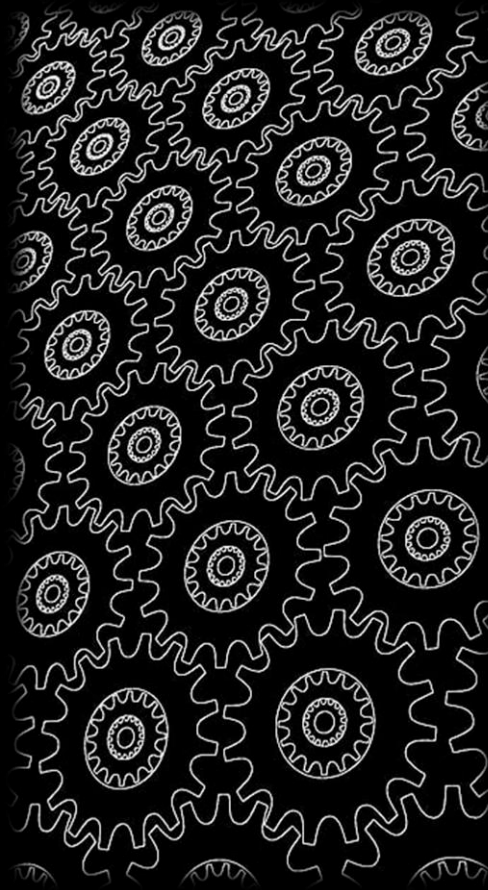
recap

more people are making video games
as artistic expression (or simply for fun),
individually

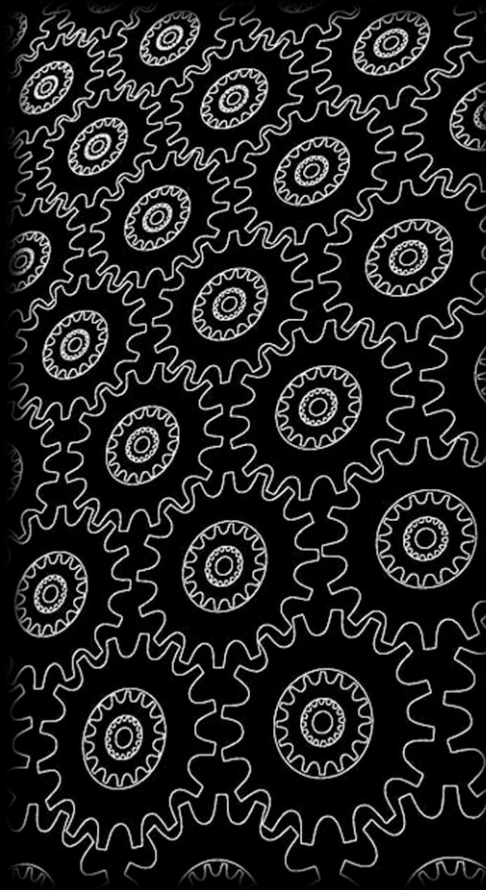
not the complete picture

not the complete picture

e.g. not all individual game developers
make personal games



what's making this all possible?



what's making this all possible?
why now?

#1 game engines

make it a lot easier
to create video games

#1 game engines

networking

physics

scene editors

complete
development environment

....

animators

graphics rendering

AI

cinematics

#1 game engines

networking

physics

scene editors

complete
development environment

....

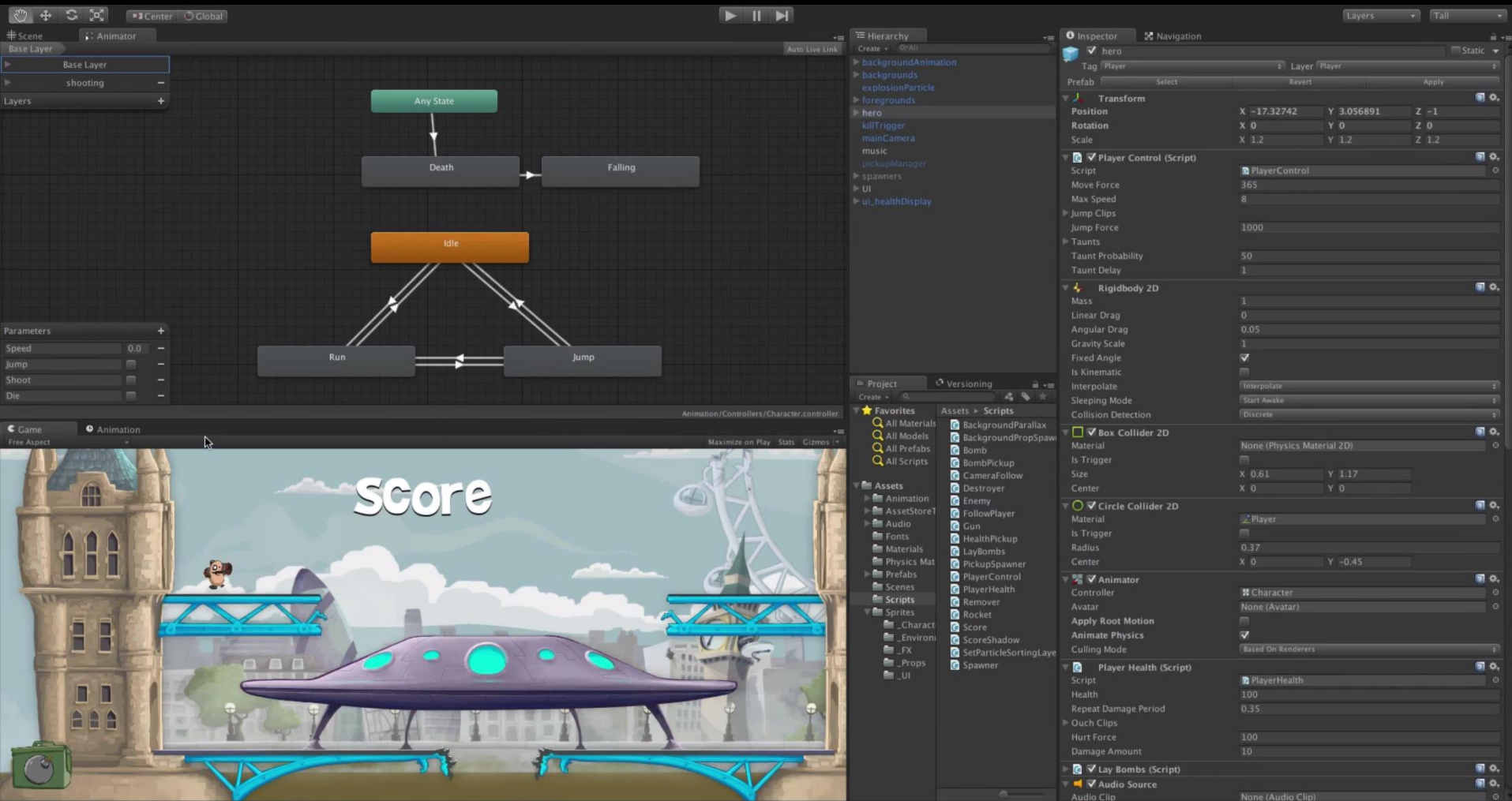
animators

graphics rendering

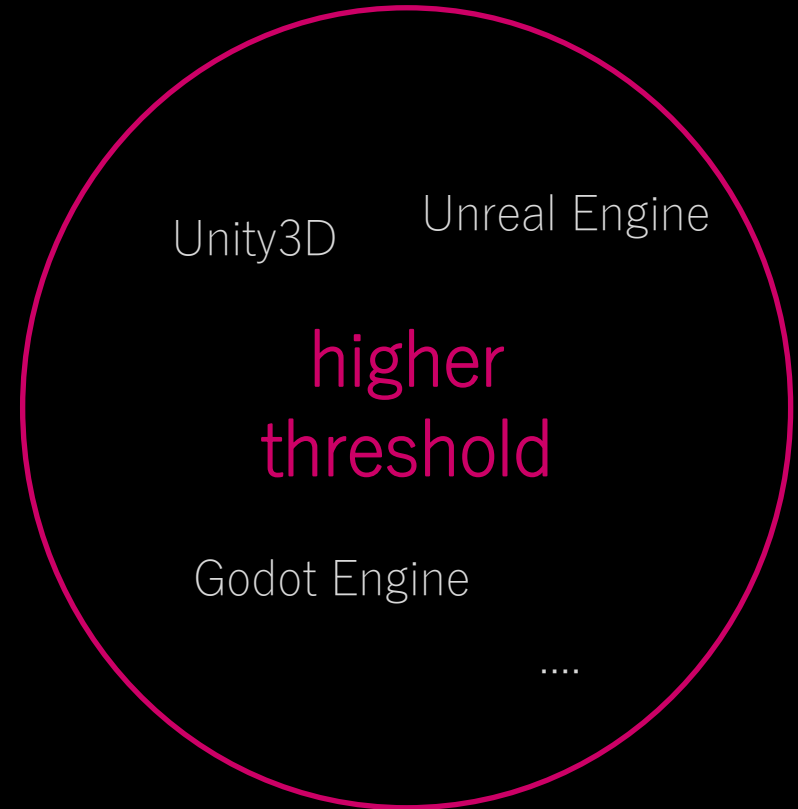
AI

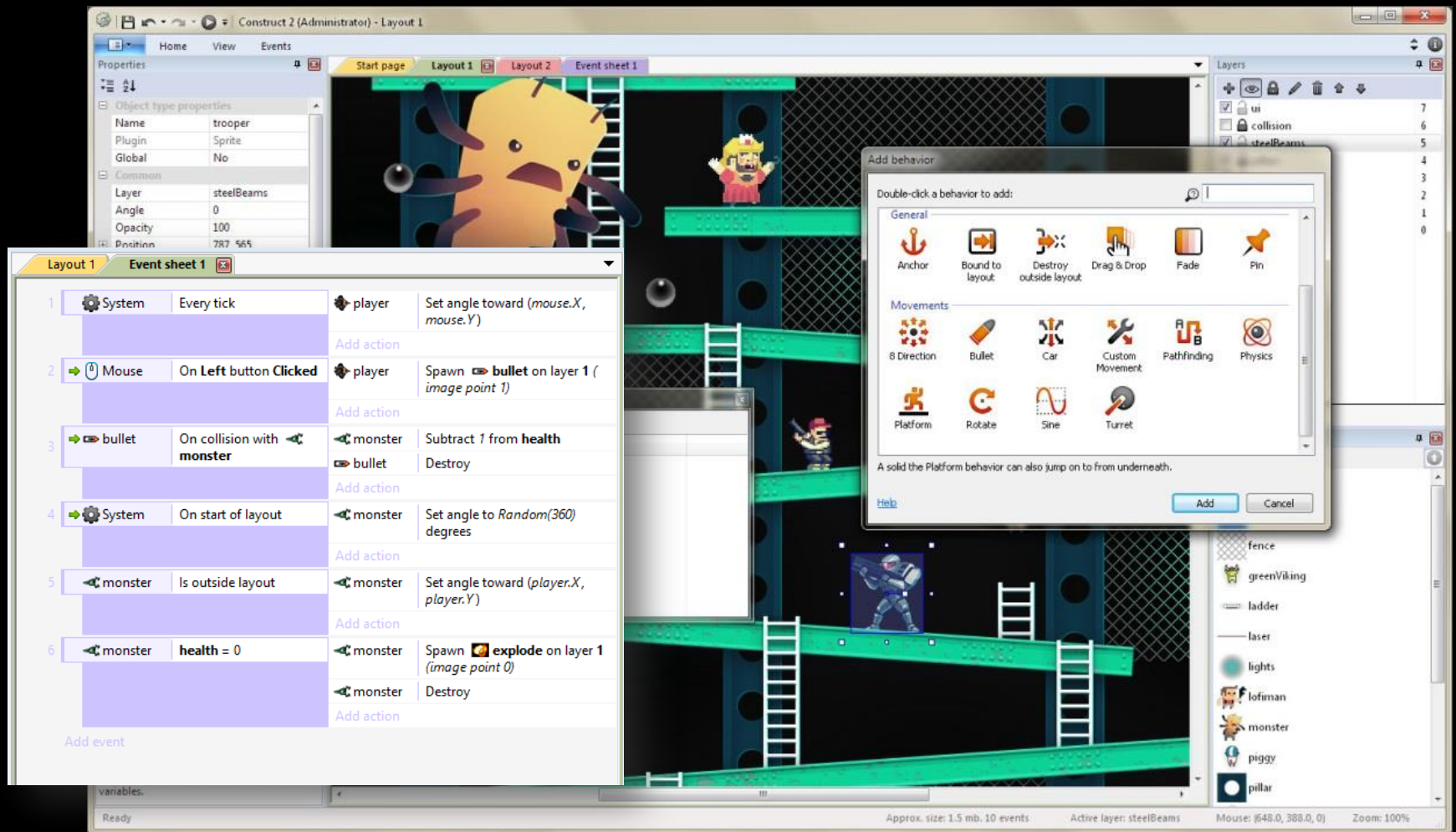
cinematics

+ plugins!!!



#1 game engines





Construct 2 2011
scirra.com/construct2

Games made with Construct 2:
scirra.com/construct2/games

Made with Construct 2



The Next Penelope

A stunning example of the capabilities of [Construct 2](#).

A fast paced, gorgeous and exciting arcade style racing game with bosses and an awesome greek mythology theme running throughout! Great fun!

[Read More](#)[Make Games!](#)

Or [visit the publisher's website](#)

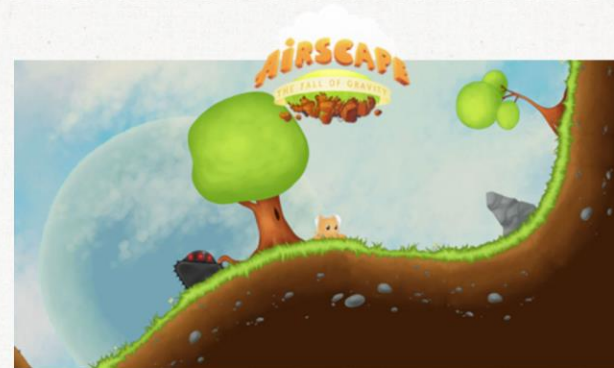
Airscape: The Fall of Gravity

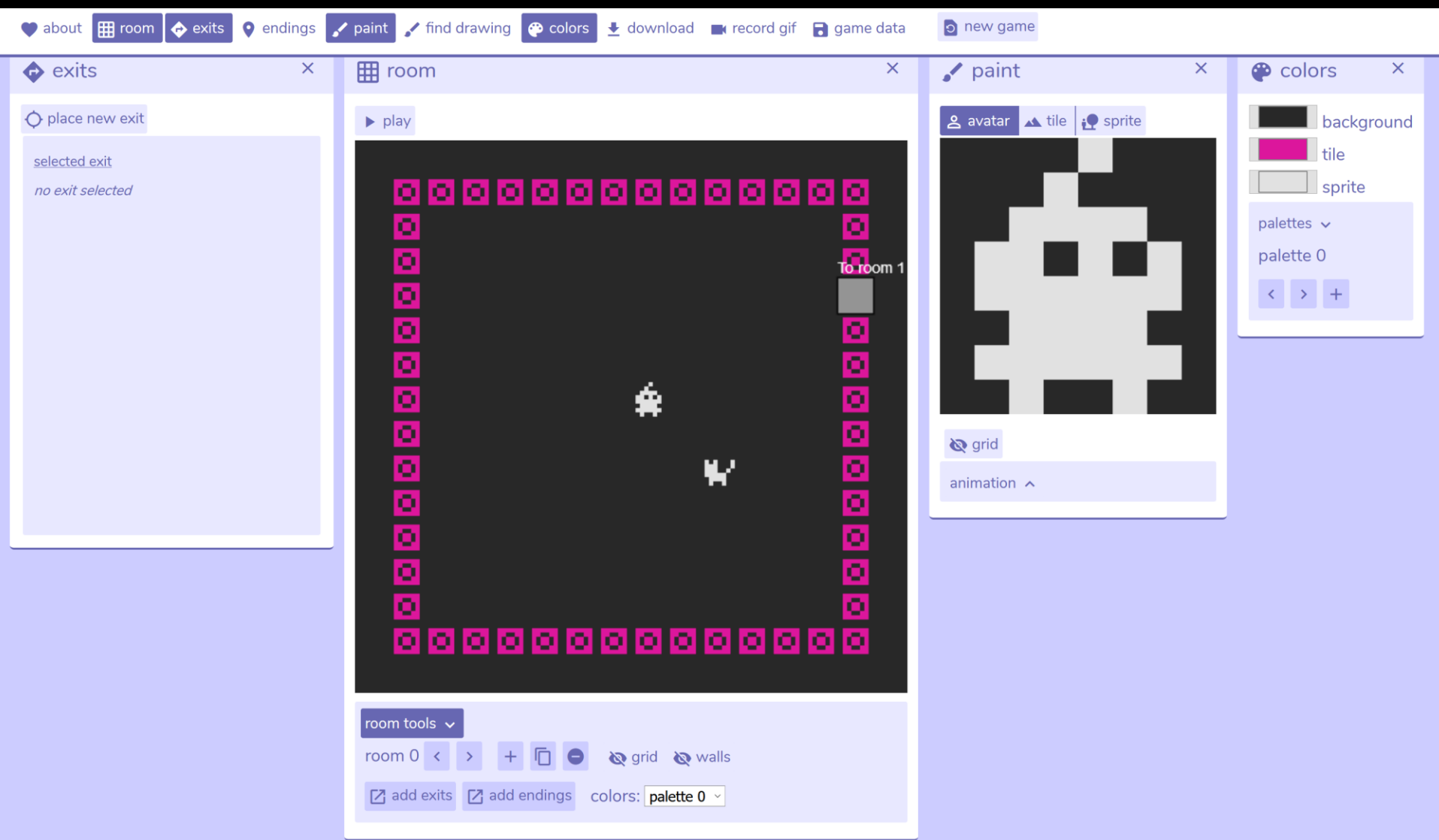
An incredibly creative gravity defying platform game. Explore twisting and bending new worlds solving puzzles along the way.

Incredibly addictive game, and a huge amount of fun to play!

[Read More](#)[Make Games!](#)

Or [visit the publisher's website](#)





Bitsy 2017 (web-based game creation)

<https://ledoux.itch.io/bitsy>



Fragmentum

nyankoe

[Play in browser](#)

[Lorenzo Pilia](#) says

The secret passages. The final ascension scene with the fading.



A Moth Batters Against Glass

I returned once again to the city of my molting...

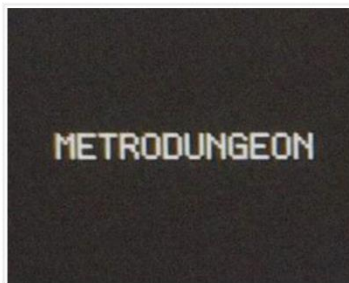
Sam Keeper

Rpg

[Play in browser](#)

[Lorenzo Pilia](#) says

The complexity and level of detail in each screen is staggering.



METRODUNGEON

explore a post-apocalyptic urban labyrinth

TENCOW

Adventure

[Play in browser](#)

[Lorenzo Pilia](#) says

Worth checking out for the combat and stealth mechanics.



I wonder...

I wonder when the next bus comes by...

Sean

Adventure

[Play in browser](#)

[Lorenzo Pilia](#) says

I wonder if there's a more dreamy Bitsy game than this.



Two Tamarind Seeds

A naive daydream of a simple life (made with ...

Illud

[Play in browser](#)

[Lorenzo Pilia](#) says

I really like the scene in the dark followed by the chat on the balcony.



Silence would be Better

a tiny insult to radios everywhere

cephalopodunk

Simulation

[Play in browser](#)



Penroses

A journey through two disorienting realms.

rarelikeaunicorn

Adventure

[Play in browser](#)



rain

looks a bit damp out today

Sean

Adventure

[Play in browser](#)



holt

a bitsy utopia adventure

Sean

Adventure

[Play in browser](#)

Bitsy 2017 (web-based game creation)
<https://ledoux.itch.io/bitsy>

Games made with Bitsy:
tch.io/c/201121/bitsy-faves






#2 digital distribution platforms

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All Games > Indie Games > Stardew Valley

Stardew Valley

Community Hub



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13,99€ [Add to Cart](#)

STARDEW VALLEY

You've inherited your grandfather's old farm plot in Stardew Valley. Armed with hand-me-down tools and a few coins, you set out to begin your new life. Can you learn to live off the land and turn these overgrown fields into a thriving home?

RECENT REVIEWS: **Overwhelmingly Positive** (1,237)
ALL REVIEWS: **Overwhelmingly Positive** (56,864)

RELEASE DATE: 26 Feb, 2016

DEVELOPER: **ConcernedApe**
PUBLISHER: **Chucklefish**

Popular user-defined tags for this product:

[RPG](#) [Simulation](#) [Pixel Graphics](#) [Agriculture](#) +

Is this game relevant to you?

[Sign in to see reasons why you may or may not like this based on your games, friends, and curators you follow.](#)

Steam 2003
store.steampowered.com

was (is) important
independent studios



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8 linseyray

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On sale Free games
Demo Top sellers
\$5 or less \$15 or less

FROM THE ITCH.IO BLOG

itch.io Recommends: Cerebral games for the week of 5/25 1d

World of Horror is Poland's bloody tribute to Junji Ito and HP Lovecraft 3d

Updates to devlogs 4d

Recently updated! Install and manage your games with the itch.io desktop app

Download now

TumbleSeed

TumbleSeed is a deceptively deep roguelike about balancing a seed...

\$14.99

Everything

Be the Universe in this epic reality simulation game.

\$14.99

Recommended for you

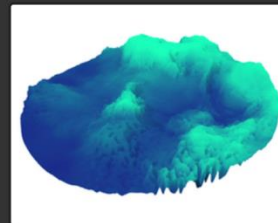
View all



BestLuck (early tech demo...) FREE



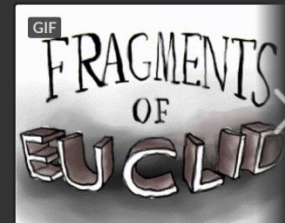
Night in the Woods \$19.99



Mu Cartographer \$5.00

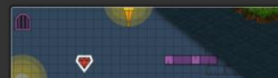


SOLITUDE \$2.00



Fragments of Euclid FREE

Latest featured games



itch.io 2013
itch.io

more recently
(and for individuals)

linseyray

<http://linseyray.github.io/>
[@linsey_ray](#)

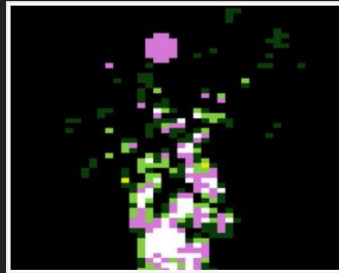
a collection of tiny playthings
from game jams and #1GAM

public account page
linseyray.itch.io



RE.VISIT

a short piece about distance



Bonfire

not all fires can be extinguished



Altitude

a relaxing cloud experience



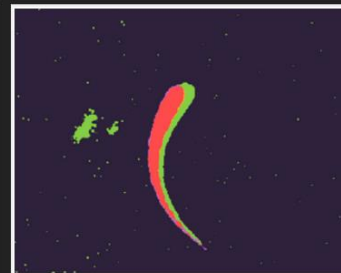
Compass

fear is not your enemy



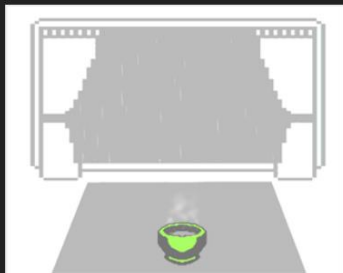
Nothing is Silent

not even the clouds



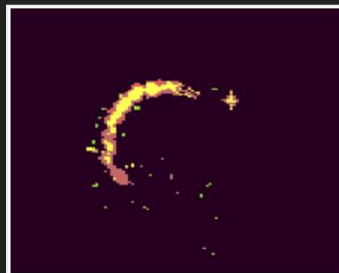
Splash 'n Shift

a soothing bubble-popper experience



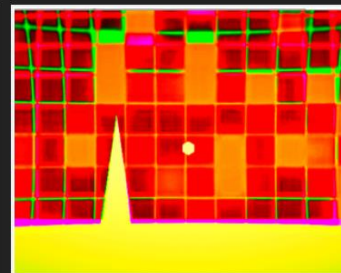
As I Listen To Rain

excerpts from poems



Dragon Dance

a dragon in pursuit of the pearl of Wisdom

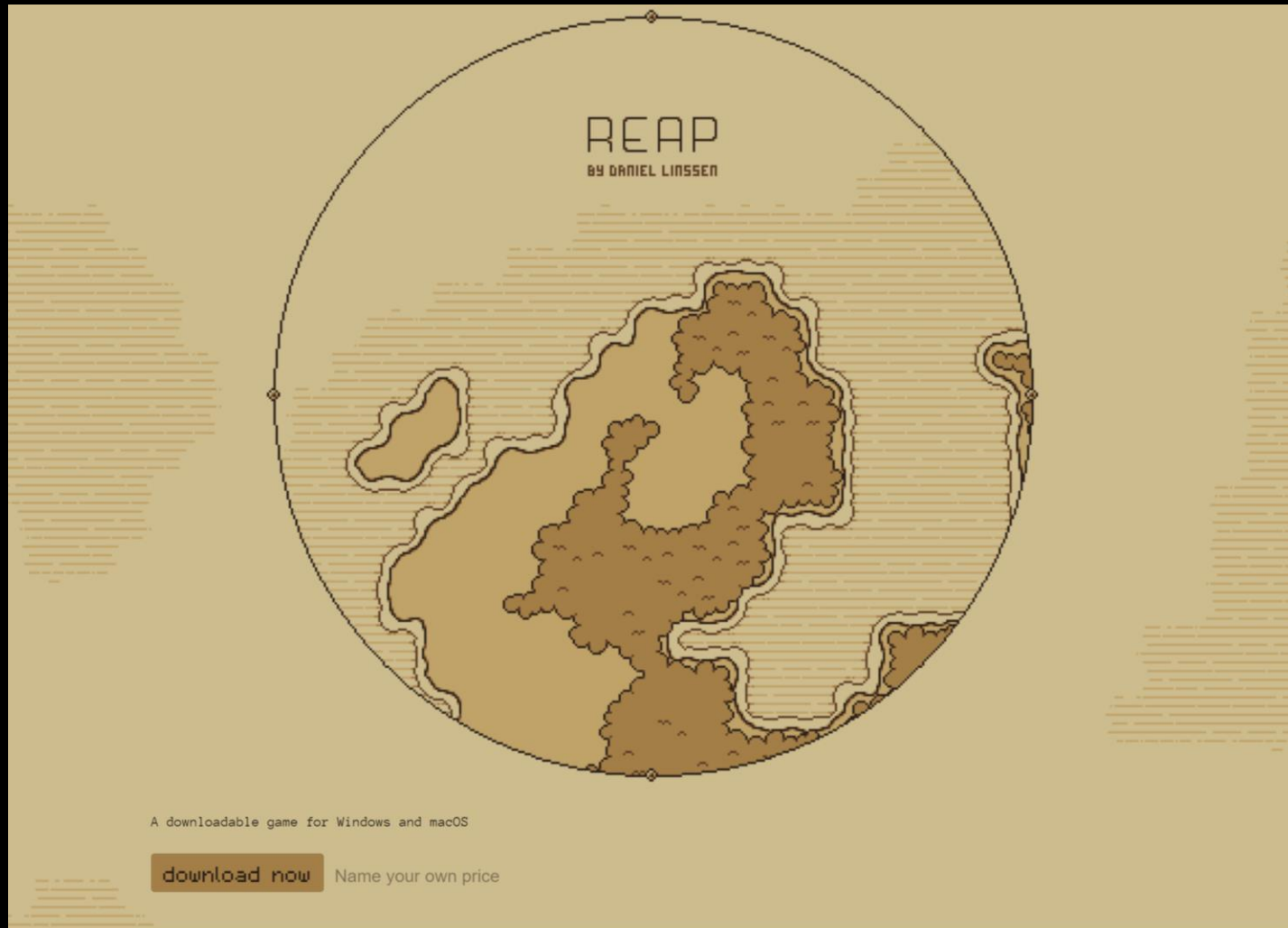


BIT.BURST

an unfinished endless runner prototype thing.
very trippy.

itch.io 2013
itch.io

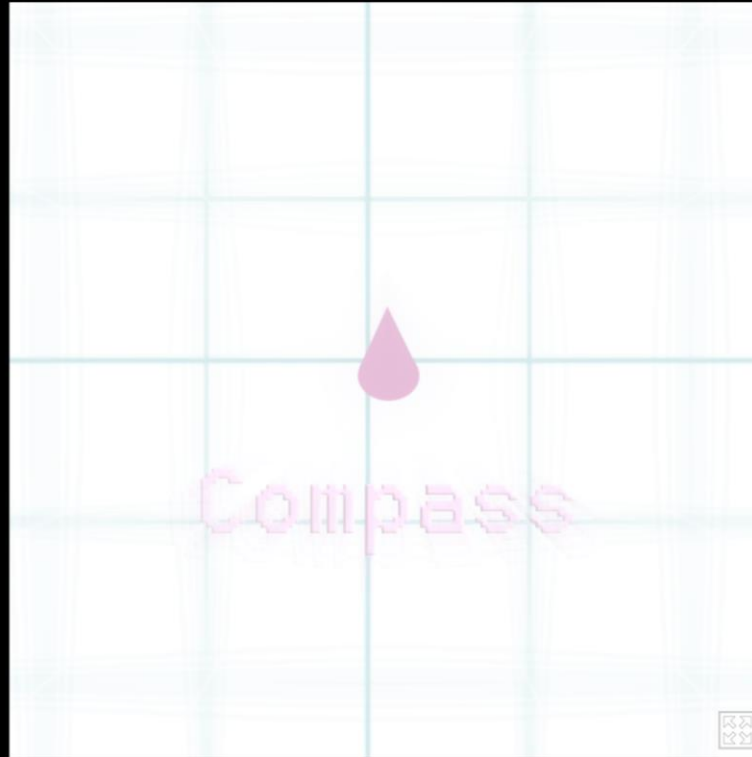
customizable game pages



itch.io 2013
itch.io

managore.itch.io/reap

browser-playable



a short game about the long-term process of overcoming fears.

[entry to Ludum Dare #34](#)

This was my first time participating in Ludum Dare, and I specifically wanted to create an experimental / personal / alternative game. It's not meant to be a "fun" game, but I do hope it's an interesting experience. Any feedback is greatly appreciated!

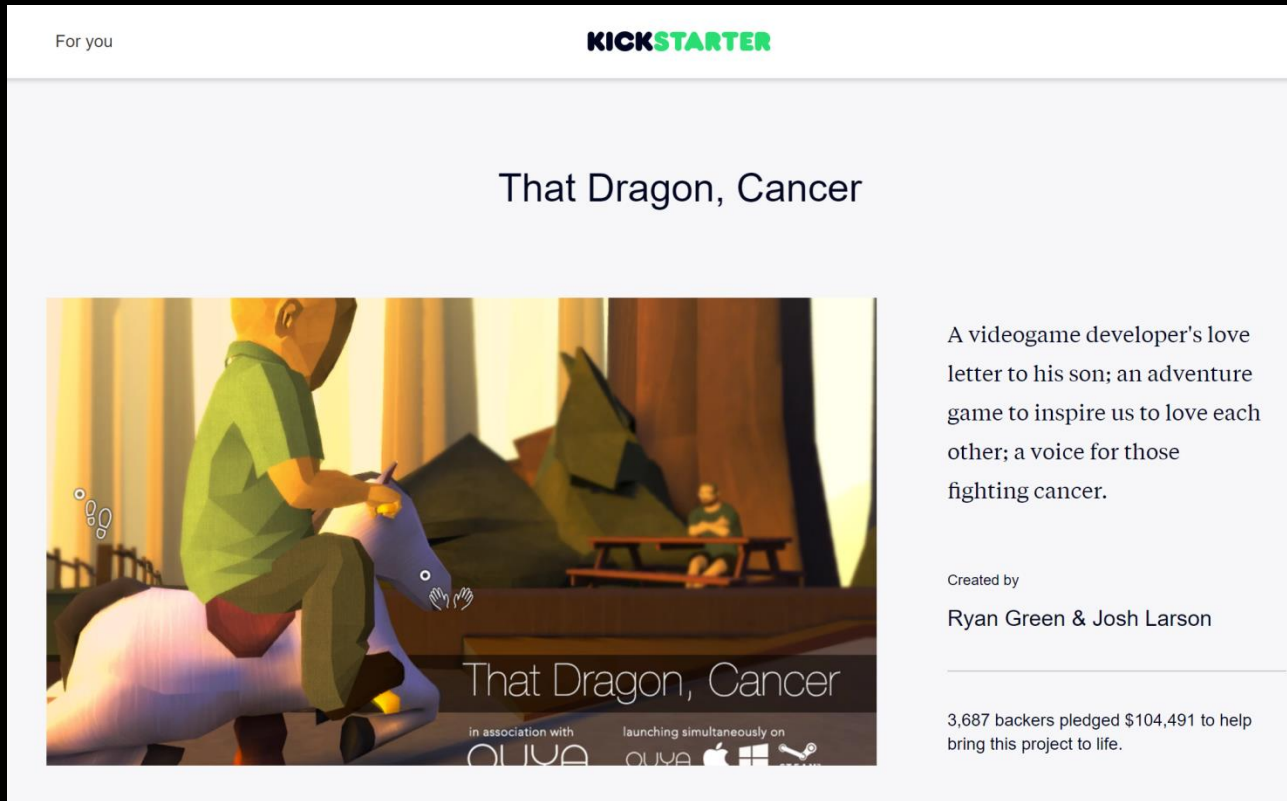
Thanks for playing!

[@linsey_ray](#)

itch.io 2013
itch.io

linseyray.itch.io/compass

#3 crowdfunding platforms

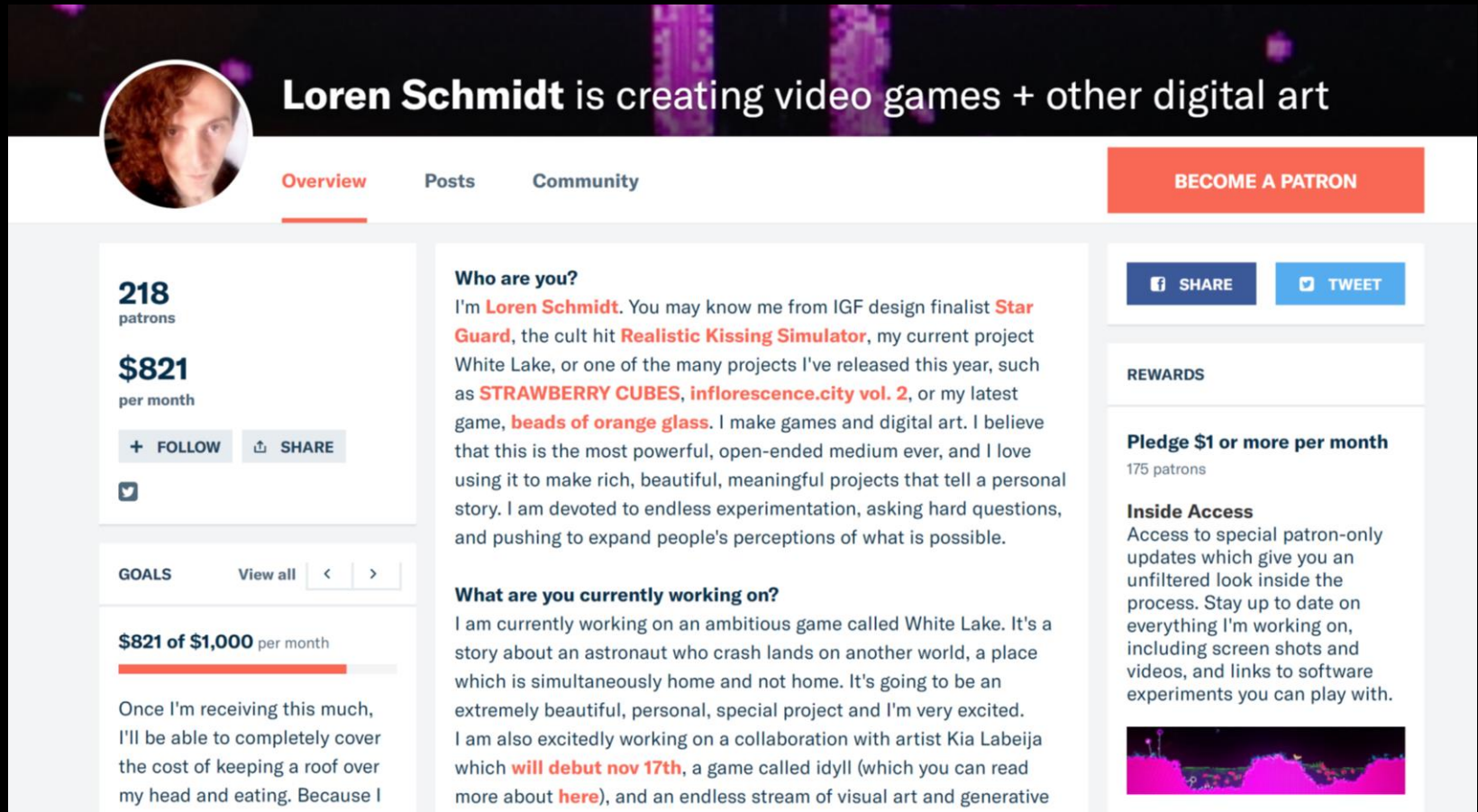


kickstarter.com/projects/godatplay/that-dragon-cancer

Kickstarter 2008
kickstarter.com

was (is) important
independent studios

#3 crowdfunding platforms



The screenshot shows the Patreon profile of Loren Schmidt. At the top, a circular profile picture of a man with curly hair is next to the text "Loren Schmidt is creating video games + other digital art". Below this are tabs for "Overview", "Posts", and "Community", with "Overview" being the active tab. A red button labeled "BECOME A PATRON" is on the right. On the left side of the overview, it shows "218 patrons" and "\$821 per month". Below this are buttons for "+ FOLLOW" and "SHARE", and a small Twitter icon. A "GOALS" section shows a progress bar for "\$821 of \$1,000 per month" and a description: "Once I'm receiving this much, I'll be able to completely cover the cost of keeping a roof over my head and eating. Because I". The main content area has two sections: "Who are you?" and "What are you currently working on?". The "Who are you?" section describes Loren Schmidt as an IGF design finalist, creator of "Star Guard", and mentions projects like "STRAWBERRY CUBES" and "inflorescence.city vol. 2". The "What are you currently working on?" section describes a game called "White Lake" and a collaboration with artist Kia Labelija. On the right side, there are social media share buttons for Facebook and Twitter. Below these is a "REWARDS" section with a "Pledge \$1 or more per month" option, which has 175 patrons. It lists "Inside Access" as a reward, including special patron-only updates, screen shots, videos, and links to software experiments. At the bottom right, there is a small image of a game scene.

Loren Schmidt is creating video games + other digital art

Overview Posts Community

BECOME A PATRON

218 patrons

\$821 per month

+ FOLLOW SHARE

GOALS View all < >

\$821 of \$1,000 per month

Once I'm receiving this much, I'll be able to completely cover the cost of keeping a roof over my head and eating. Because I

Who are you?

I'm **Loren Schmidt**. You may know me from IGF design finalist **Star Guard**, the cult hit **Realistic Kissing Simulator**, my current project White Lake, or one of the many projects I've released this year, such as **STRAWBERRY CUBES**, **inflorescence.city vol. 2**, or my latest game, **beads of orange glass**. I make games and digital art. I believe that this is the most powerful, open-ended medium ever, and I love using it to make rich, beautiful, meaningful projects that tell a personal story. I am devoted to endless experimentation, asking hard questions, and pushing to expand people's perceptions of what is possible.

What are you currently working on?

I am currently working on an ambitious game called White Lake. It's a story about an astronaut who crash lands on another world, a place which is simultaneously home and not home. It's going to be an extremely beautiful, personal, special project and I'm very excited. I am also excitedly working on a collaboration with artist Kia Labelija which **will debut nov 17th**, a game called idyll (which you can read more about **here**), and an endless stream of visual art and generative

REWARDS

Pledge \$1 or more per month
175 patrons

Inside Access
Access to special patron-only updates which give you an unfiltered look inside the process. Stay up to date on everything I'm working on, including screen shots and videos, and links to software experiments you can play with.

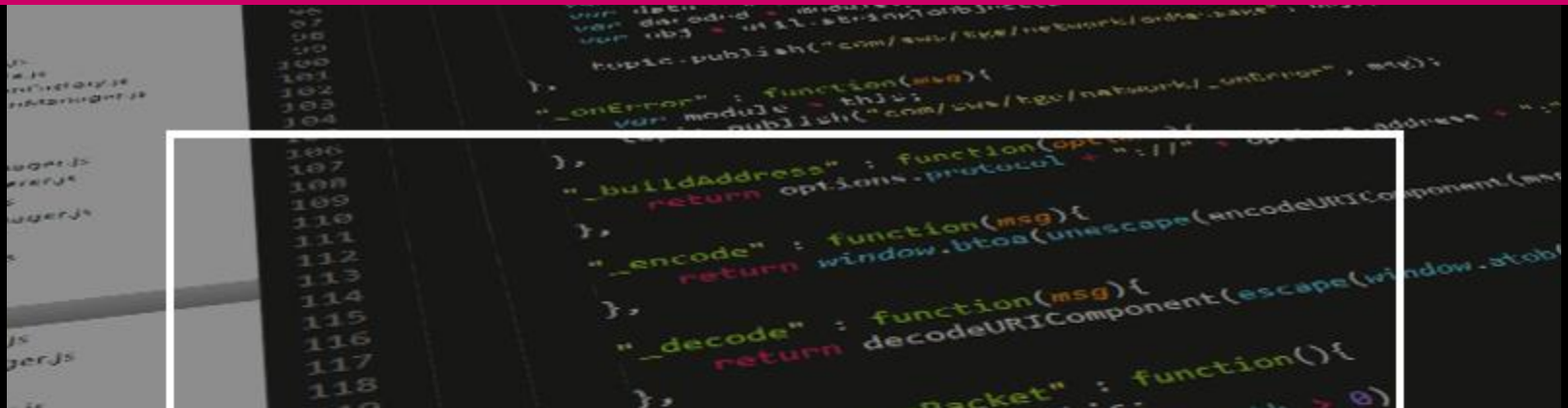
Patreon 2013

patreon.com

shown: patreon.com/vacuumflowers

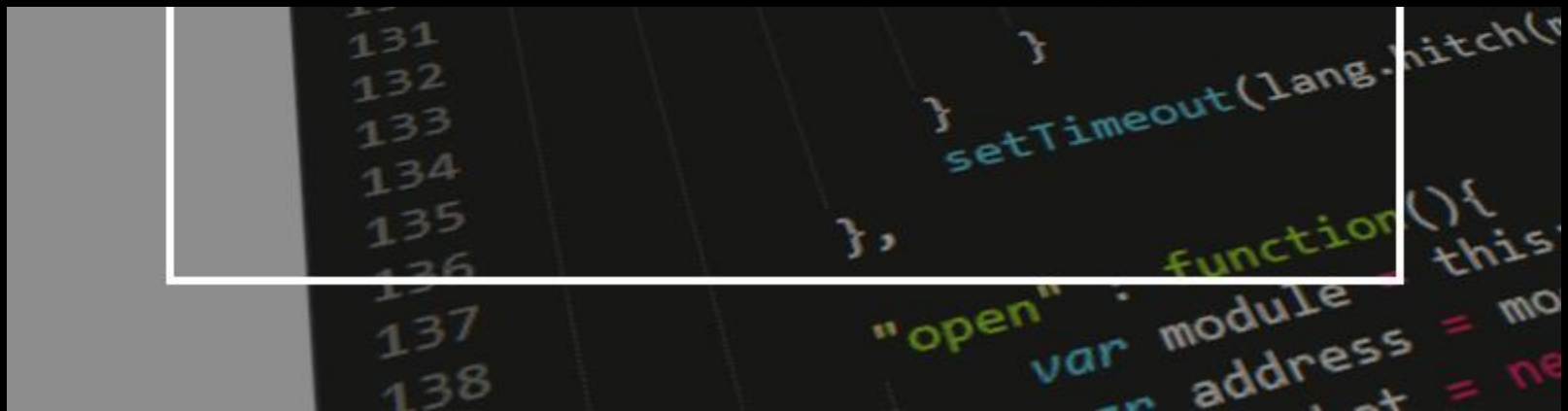
more recently
(and for individuals)

#4 education



```
var data = {
  var data = {
  var data = {
  topic.publish("com/edu/kyu/network/order-save", data);
  },
  "_onError" : function(msg){
    var module = this;
    module.publish("com/edu/kyu/network/_onError", msg);
  },
  "_buildAddress" : function(options){
    return options.protocol + "://" + options.address + ":" + options.port;
  },
  "_encode" : function(msg){
    return window.btoa(unescape(encodeURIComponent(msg)));
  },
  "_decode" : function(msg){
    return decodeURIComponent(escape(window.atob(msg)));
  },
  "packet" : function(){
    // ...
  }
}
```

university
online
game engine-specific



```
131
132
133
134
135
136
137
138
    },
    setTimeout(lang.hitch(this, function(){
      // ...
    })),
    "open" : function(){
      var module = this;
      module.address = module.address + "open";
    }
  }
}
```

#5 community spaces

strength
motivation
connection



#5 community spaces

twitter.com



#5 community spaces



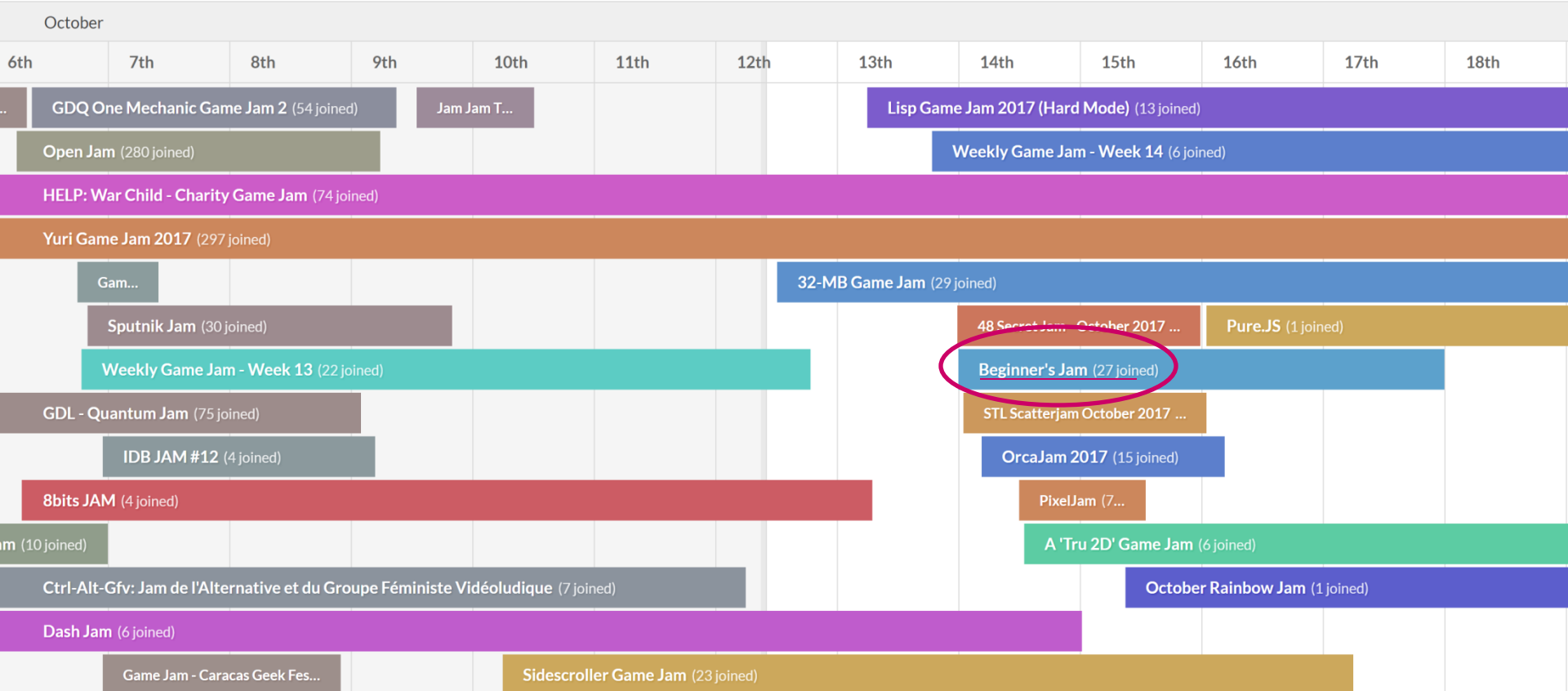
game jams



Game jams on itch.io

itch.io is a place for hosting and participating in game jams online. Anyone can start hosting a game jam immediately. Here you can find some of the game jams that are going on. **20066** games have been created for jams hosted on itch.io.

Host your own jam



#5 community spaces

games festivals & conferences

gameconfs.com



Lyst

Romance, Love & Sex in games

lyst-summit.org/



Screenshake

diversity of video games
for general audience

screenshake.be/



Queerness and Games Conference

qgcon.com

BerlinGameScene.com

 @BerlinGamez



Talk & Play

next: October 31st

meetup.com/BerlinGameScene/events/243246879



A MAZE. / Berlin

yearly in April

amaze-berlin.de



Femisphere

every few months

berlingamescene.com/event/femisphere-lvl-2/

Mini Game Jam

9h, once a month, next: TOMORROW!

berlingamescene.com/event/october-mini-game-jam-2017/

so... in summary

How has gamedev become more accessible?

How has gamedev become more accessible?

new services

to share

increase visibility

get paid

How has gamedev become more accessible?

new services

to share

increase visibility

get paid

low threshold tools

to create

How has gamedev become more accessible?

new services

to share

increase visibility

get paid

low threshold tools

to create

growing community

to connect

How has gamedev become more accessible?

new services

to share

increase visibility

get paid

low threshold tools

to create

growing community

to connect

→ easier than ever (for individuals) to

create

educate

share

connect

tips for getting started

tips for getting started

~ Look into game engines

tips for getting started

- ~ Look into game engines
- ~ Participate in game jams itch.io/jams

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- ~ Look into game engines
- ~ Participate in game jams itch.io/jams
- ~ Do #1GAM onegameamonth.com

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- ~ Get on Twitter

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- ~ Go to events gameconfs.com

tips for getting started

- ~ Look into game engines
- ~ Participate in game jams itch.io/jams
- ~ Do #1GAM onegameamonth.com
- ~ Get on Twitter
- ~ Go to events gameconfs.com
- ~ Create, Create, Create! (and maybe share?)

Thank you!

Linsey Raymaekers

linseyray.github.io

 [@linsey_ray](https://twitter.com/linsey_ray)