Gaming for the Greater Good

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goto;amsterdam
"Games lubricate the body and the mind."
— Benjamin Franklin
“C makes it easy to shoot yourself in the foot; C++ makes it harder, but when you do, it blows away your whole leg.”
- Bjarne Stroustrup
A programmer...
Me, feeling good about my programming skills
Wooga, where I work, makes casual games for mobile and Facebook in Berlin, Germany
Problem
Problem

Magic
Problem

Magic

No Problem

the normal steps of an application
A \rightarrow B
Problem
Problem

Reward, New Problem
Problem

Reward, New Problem

Reward, New Problem
the normal steps in a game
A → B
D ↪ C
the main difference between flows in apps and games
“If I have seen further than others, it is by standing upon the shoulders of giants.”

—Isaac Newton

Read more at http://izquotes.com/quote/135288
Game Devs
Game Devs

App Devs
Game Devs

App Devs

Programming Language
Game Devs
App Devs
Programming Language
Hardware
Humans
Not one single person in the world knows how to make a pencil
we have always used what’s around us as tools.
It's everywhere in nature.
"still, no crow programmers"
so, yeah, I sucked as a game developer at first
but I got to hang around with some game developers.
Language Agnostic
they don't focus a lot on how
WHAT
rather on what they are building
BLOCK
as you gain experience, best practices emerge
\[ x \neq 0,0 \]
and you start dealing with negative coordinates from the beginning, rather than shoehorning it in later.
Adding new regions to a map becomes easier.
make sure you think of all the key components and their interactions from the get go
no, not todo lists. Logical structures
queues empower you to do so many things
Hardware

all these clever tricks...
... and you’ll still be limited
there are so many platforms, each with their own limitation.
over the past few years, we’ve had many solutions. We’ve tried many of them at Wooga, but I want to talk about three now
platform from the get-go

javascript is a fun language

hardware acceleration, which you use to cheat for better performance
will-change: opacity, transform;
asm.js
unity supports both c# and JS and is a great ecosystem for making games
but the big boys use obj-c
but what about multi-platform?
#ifdef ANDROID
The simpler the language, or the more it abstracts, the quicker you are at prototyping in it. HTML5: very easy to lay down the basic mechanics for a game. OBJ-C feels just very grown up, and Unity is quite in the middle.
all this because of limitations
all this because of limitations
all this because of limitations
you want your users and players to feel some magical moments. For that you’ll need to perform some magic of your own
OOM

_the 2mb story_
static char buffer[1024*1024*2];
"Heck, we couldn’t even find the collision detection…"
random ()
random ( ) {
  #
}
random()
{
    return rand();
    //easy, lol
}
random()

    return 0.1 + rand();
    // there, casual!
random()
{
return 0.1 + rand() 
+ time;
//grind much?
}
overalls
hat
moustache
designed by what can be done
Yes, I say magic a lot
That’s how game devs and app devs are the same
Yes, I say magic a lot
That's how game devs and app devs are the same
Smiles and Magic

our legacy, as people who make things
Any sufficiently advanced technology is indistinguishable from magic.

– Arthur C. Clarke
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