

**Do What You Want
...and get paid for it!**

Scott Bilas

Game Camp 2008, Oslo, Norway

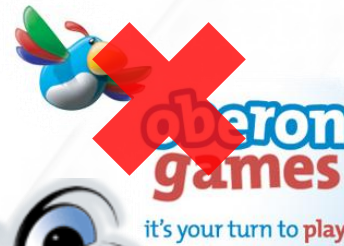
(Cell Phones?)

A little about me...

- 13 years in game development
- Range of experience – engineer to studio director
- Currently an engineer at Loose Cannon Studios
 - Fresh awesome startup – Wii, Xbox360, PS3
- I love talking and writing about game development! (Btw thanks Dan and Microsoft!)



closed! ☹️



I worked on some fun games...

- Retail, casual, edutainment, web-based gaming, Vista, e-commerce



Game Camp 2008, Oslo, Norway

What am I talking about today?

- In preparing this talk, I stepped back and thought hard about where I am today
 - Proud of the last 13 years, thankful for opportunities I've had
 - Almost always working on things I really enjoy
 - Challenged, good pay, working with cool people
 - Looking forward to going to work every day
 - In short, I'm *happy!*
- Trying hard not to make this cheesy, but
 - *This talk is actually about being happy (OMG)*
 - I want *everyone* to feel this way!

Why I think this is important

- There are lots of unhappy people in this business
 - I've worked with many
 - I've been there myself plenty of times
- Even at great companies on great projects, people still find ways to get down
 - Frustration at what they're working on
 - Frustrated at the company's direction
 - Sometimes even angry
 - We all know the "angry engineer" stereotype
 - Maybe this is even you (it's been me)
- *This is unhealthy and counterproductive*
- Lately I've been trying to understand this

What I concluded

- We all pursue what leads to personal fulfillment
 - Challenge, interest, glory, learning, respect, new experiences, working with cool people or tech, etc.
 - And maybe some salary, royalties, title, popularity (if that's what you're after)
- We all have different motivations but I believe that ultimately, we all want to be happy
- Happiness comes from doing what you want
 - Could be running your own studio, being part of Halo 4, building a critically-acclaimed indie hit, whatever!

So... Be in control of your career!

There are four main themes in this talk

- Build a personal network
- Use employer financing
- Look outside and jump in
- Have the right attitude

Don't worry we'll get to specifics soon!

Quickly: My biases

- My core experience is in engineering
 - Some examples will be a little nerdy
- Fundamental belief in being a generalist
 - I have always focused on being ok at many things, and excellent at a few
 - Has the most value to a smaller team
 - Provides you with the most opportunities
 - Being a generalist isn't for everyone
 - Depends on what really makes you happy
- This talk is about what has worked for me
 - We all are trying to get different things out of games
 - I hope to inspire you today!
- I will probably talk way too fast (I'm sorry...☹)

Theme 1

Build a personal network

Use employer financing

Look outside and jump in

Have the right attitude

Build a personal network

- What is a "personal network"?
 - Friends and connections in the business
 - People you've worked with
 - People you've met online, at parties or conferences
 - Don't need to hang out as buddies
- These are relationships that have *worked*
 - More than simply having worked together
 - More than just being cool
 - Each side has made an impression on the other

Why is this useful?

- Talented people always want to work together
 - “Cold” interviewing sucks (for employer and employee)
 - Your friends will seek opportunities for you
 - You'll switch jobs and want to bring your friends along
 - Good for finding work to do on the side
 - Good for finding people to do work you need done on the side
- Bottom line: a personal network adds job options
 - *This helps you do what you want to do!*
- Also: commiserating over beers about work is fun

Build your network

- Overall, pretty easy to do (we're all nerds together)
 - Keep in touch with people who are awesome
- Be involved in communities
 - Participate in local and online groups
 - Publish your work by giving talks and writing
 - I regularly get emails about stuff I did *years* ago
 - Look for other bright, positive, outgoing people
 - *Obviously you all know this because you're here today!*
- Even if totally happy where you are, keep it up
 - Networking is not just about finding work
 - It's great for personal enrichment (and fame if you care)

Some personal examples

- Nearly all my jobs found through friends
 - Haven't really had to look for a job since college
 - Edmark → Sierra
 - Gas Powered Games → Oberon → Loose Cannon
 - Misc contracting jobs
- Frequently recruited from my network for work
 - Recommended/hired friends and family with (almost always) great success!

But be cool...

- It's got to be a two way street, and sincere
 - Nerds are more sensitive to this than most people
 - You're not just networking to network
 - You're building community, adding value
- Adding someone to your LinkedIn or FaceBook is really not worth much
- Tends to be an issue with younger folk, especially fresh out of college
 - Remember it's about community – don't just dump resumes on people. That's not networking.

Theme 2

Build a personal network

Use employer financing

Look outside and jump in

Have the right attitude

Use “employer financing”

- (This is a theme that your boss may not like much...)
- Use your job to “pay” for learning, research, and personal enrichment!
 - Where “pay” = the time they are paying you for
- Tasks you are given are always great opportunities to learn and practice
- The right attitude here is key – it’s about being happy
 - *Repetitive?* Find a way to automate!
 - *Below your skill level?* Use as a research platform!
 - *Have some down time?* Well don’t just sit around!
 - Should have a mile-long list of fun things to do waiting.
 - “I’m bored” should never ever happen on the job

More about employer financing

- If early in your career: feel free to over-engineer
 - Over-engineering: complete tasks to 200%
 - Use every opportunity to learn, experiment
 - But don't get caught!
 - And don't let it hurt or delay the game!
- Get them to send you to conferences, buy books and training, and really take advantage of it
 - Don't demand, should be able to make a strong case
- Be curious and satisfy your curiosity
- Every chance you take to enrich yourself now helps you do what you want in the future
 - You'll become more versatile, more valuable

Some personal examples

- Center for Nondestructive Evaluation
 - Task: to control robotics and take data
 - Used as an excuse to learn OO methods
 - Takeaway: first time really understood applied-OO
 - Has been applicable to every job since then
- iCat
 - Task: make a (pointless) text editor
 - *(Engineering example coming up, sorry...)*
 - Over-engineered it with a code-coloring parser too
 - Learned lex/yacc, parse trees, etc.
 - Very useful for GK3's Sheep, DS's Skrit, and Lua

Even more!

ok, maybe a little over-engineered...

- Sierra
 - Vaguely necessary task: Gabriel Knight 3's "construction mode"
 - Became the foundations of my debug infrastructure patterns
 - I use these on every game
 - Doing separate talk on this topic!
- Gas Powered Games
 - Task: had various text processing needs
 - Used as an excuse to learn Perl
 - Takeaway: Perl was a key turning point in career
 - Correctness and performance don't matter usually
 - Got me more in touch with gameplay programmers



Ok last one

- Oberon Games: ultra boring repetitive task
 - Task: track % time people were on each project
 - Awful, tedious process of gathering data and generating reports
 - Wrote a happy web app to automate it
 - Learned Asp.net, CSS, stateless programming
 - FUN!
 - Takeaway: the web is an *awesome* tools platform

Summing up employer financing

- View every task as an opportunity to grow
- Boring/low-skill tasks can usually be automated
 - Artists and testers: bug engineers to make tools!
- Automation is a great way to explore new ideas
- Do it all on employer time!
 - But don't hurt your project
- Supplement with side projects at home if you can
 - Share research

Theme 3

Build a personal network

Use employer financing

Look outside and jump in

Have the right attitude

Look outside and jump in

- What do I mean by this?

Outside

- Outside of games, outside of your line of work

Jump in

- Find new opportunities; jump in with both feet
- Aim to gain experience in new/unexpected ways
 - *Expand what you want to do, then be able to do it!*
- Applies to everyone!
 - Artists, engineers, testers, producers...

Embrace the outside world

- Many game developers don't like this
 - Often treat with indifference, contempt, distrust
 - Make fun of academia, enterprise development, web development
 - I don't think they realize what they're doing
 - I certainly didn't when that was me
- Huge amount of "not-invented-here" thinking in this business
 - Waste a lot of time solving solved problems
 - Sometimes it's just so we can do it our way
 - ...but often it's from ignorance of the outside world

Example: first taste of databases

- Always had thought DB's and SQL were irrelevant
 - How could that be useful to games?
 - We're not doing bank loans or census reports...
- ...then I joined iCat
 - Crazy web 0.9 startup company (not games)
 - Work involved web development and databases
- Takeaway: OMG, DB's are useful, and everywhere!
 - Did you know every game ever made is a DB?
 - Subtle but important shift in thinking
 - Many concepts used in game content management (runtime or offline) are well-understood in DB's
 - Data integrity, optimizing searches, log files, atomic transactions, schemas, schema migrations, concurrency, denormalizing, data transforms

Example: manager at Oberon Games

- Started as engineering director
 - Later became studio director
 - *(Kind of sucked at it but anyway...)*
- Decided to learn all about management
 - Jumped in all the way!
 - Managed people, budget, office, projects, hire/fire
 - Had to balance corporate needs and creative vibe
- Takeaways: made me a far better employee
 - Better appreciation for what the boss does
 - Better able to see multiple sides of issues
 - Lots less animosity in workers vs. management like I had done at previous companies
- Plus: I always wanted to run a company, but learned that I probably wouldn't like it or be good at it. 😊

Example: analytics at Oberon Games

- About analytics
 - Gather user usage data behind the scenes
 - Amazingly powerful tools to optimize sites
 - This is a solved problem in the web world
- Games need the same thing! (gameplay analysis)
 - Implemented “Stripmine” system at Oberon
 - Got first taste of tuning games based on analytics
 - All major studios do this in some form
 - I’m implementing this again at Loose Cannon
- Takeaways
 - Got serious appreciation for the value of analytics
 - Even more experience on how (not) to use DB’s
 - Third party tool development experience

Switch jobs every so often

(Another slide your boss may not like...)

- Great way to experience new things (and salary)
 - New tech, processes, art direction, people
 - This industry moves and changes fast
- With a good sized network this is not difficult
- Being a generalist makes this *much* easier
- So many game companies suck that you can usually quit with a clear conscience!
 - Careful on bailing *too* early (reputation)
 - You need to ship games!

My job hopping history

- Early on, I switched jobs every 1-1½ years
 - Got experience in different projects, teams, genres
 - Huge expansion to my personal network
- Started finding better matches for my needs
 - Last two jobs were 4 years each
 - Getting better doing what I want to do
 - Loose Cannon 1½ years so far, but plan to stay for a very long time 😊
 - In the distant future: fusion reactors!
- Exposure to so many companies taught me a lot
 - It's important to work for a couple bad companies
 - They demonstrate how not to do things
 - Need this to recognize and appreciate a truly good company when it comes along!

Do work and projects on the side

- Your personal network will lead these to you
 - Again, good people want to work with good people
- May violate your employee contract; be smart
- Maintain careful separation between your work and your side project
 - No sharing code or game assets
- Contracting is a very different/interesting style of working, and worth experiencing
 - It will also make you better able to manage contractors in the future (if it comes up)

Take your work with you

(Lots of boss-unfriendly slides in this talk!)

- Are you switching companies?
 - Take your code, your art, your emails, etc. with you
 - It's *your* time, *your* personal investment
 - Each job you build up a foundation, don't throw it away
- Be smart
 - Don't bring it into your new company
 - Use solely as inspiration or reminder of problems solved
- Be careful, and keep it to yourself
 - Depends on local laws
 - Definitely not ok in U.S. (but many of us do it anyway)
 - Don't use in a way that hurts the old company at all

Other things you can do to get outside

- Going to a conference?
 - Spend 1/3 of your time going to talks about unfamiliar subjects
- Subscribe to more than just game related and nerdy magazines and blogs
 - Step a little out of the “all I know is games and game making and game playing” mindset

Oberon experience in a nutshell

This story includes elements of everything in this talk so far.

- Quit GPG after frustration with management, had no plans
- Personal network got me contracting with Oberon
- We saw an opportunity to go full time and create a Seattle studio, proposed it, they went for it, and we jumped in (started in my bedroom initially)
- Proposed to take over studio management, then jumped in
- Hired friends, family, and acquaintances from personal network to ship 20 games plus several major tech projects
- Ultimately failed at role, got demoted mostly due to lack of profit, but had learned a lot being on the outside
- Decided “screw this management stuff” and went back to programming. Used down time at Oberon to research XBLA.
- Personal network took me to Loose Cannon where I’m learning all kinds of new things (console dev, audio, ...)

Theme 4

Build a personal network

Use employer financing

Look outside and jump in

Have the right attitude

Have the right attitude

This has a lot of interpretations, but I mean it as:

- Get smacked down and learn from it
- Don't get too emotionally invested
- Keep a positive outlook

Part of being in control of your career is being in control of your manner. Unhappiness is so often self-inflicted!

These coming slides are inspired by some of the stupidest and most unprofessional things that I've done.

Get smacked down and learn from it

- Lots of us graduate, thinking we know everything
 - We all need to get “smacked down” (put in our place)
 - Maybe even multiple times
 - Happened to me on my first games job at Edmark
- Well, I thought I knew everything too
 - Some team elders got fed up and marginalized me
 - I didn’t understand this for years
 - Easy to get an attitude about being right when you have no experience, easy to see the world as black & white
 - There usually is no one true “right” way to do things
 - It’s not about right and wrong when people are involved
- Takeaway: with enough experience and people on a team, you must be a diplomat, and not a dictator
 - Systems and tools engineers can be so bad about this...
 - *Can’t do what you want if nobody wants to listen to you*

Don't get too emotionally invested

- Be passionate, work hard, and enjoy yourself
 - ...but that deep personal investment can be harmful
 - I'm talking about extreme overtime and poor health
 - It's not (IMHO) worth having a heart attack, dying, ruining your body, or getting divorced over
 - I've seen each of these happen on the job
 - But also about missing out on life
 - The *other* things that you want to do
- Can be passionate, dedicated, and balanced
 - Only recently have I figured this out for myself
 - Never again will I miss a snowboard season for a game!
 - Europe understands this better than United States
- But once again – it's a personal decision...

Don't get too emotionally invested

- Disagree strongly about something?
 - Could be art direction, company decisions, character design, coding standards...
- *Get it resolved!*
 - Don't stay upset and bitter, becoming resentful
 - Don't bring people down with you
 - Resolution: if the decision-maker can't be convinced:
 1. Embrace the decision and get on board, or
 2. Move to another project or company
 - It's a waste of everybody's time otherwise
- We're all passionate and driven
 - ...but it's *not our company*, and it's *not our game*
 - Instead of spinning your wheels, apply all that energy to something with a real return for you!

Keep a positive outlook

- Lots of game developers thrive on negativity
 - Perhaps it's a creative outlet for them
 - Definitely a personal choice, and can even be fun
 - This can drag others down with you to the bottom
 - I have seen a lot of us vs. them mentality
 - Cross-office, cross-department, cross-team
 - Passive-aggressive artist/designer/engineer battles
- Give people the benefit of the doubt
 - Assume everyone has the best of intentions
 - Remember that nobody is exactly like you
 - I struggle with this particular rule all the time, particularly when stressed
- *If people are on your side, it's a lot easier for you to do what you want to do!*

Keep a positive outlook

- Remember how you can get used to anything
 - Including when things are good!
 - When you get frustrated, pause and put things in perspective
- When you find a company that really treats you well, appreciate it and live it up!
 - This is why I think people need experience at bad companies: in order to truly appreciate the good. 😊

In Summary

- It's taken me a long time to get to Loose Cannon
 - And dammit I've worked hard to earn it
- My hope is that you all find a way to do what you want to do in the game industry
 - Be happy and healthy
 - Look forward to work every day
 - Help pull your peers up to that place as well

Thank you for the chance to tell you my story! xoxo

Thank You!

- Slides will be posted to:

<http://scottbilas.com>

- Contact me at:

Scott Bilas

scottbilas@gmail.com

