

SECRETS OF THE

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PROGRAMMERS



ED BURNS



Introduction

- * Why I wrote the book
- * What's my idea of a "Rock Star Programmer"
- * Prior art
- **Categories of Secrets**
 - * What do I mean by "Secret"?
 - * The problem with categories
- **Ancient Secrets**
- **Modern Secrets**





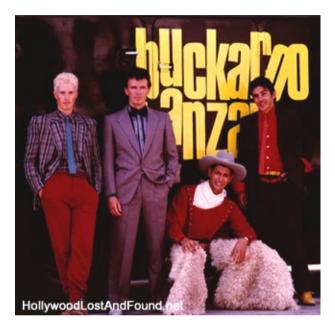
I started speaking at conferences, often the same speakers again and again. Why?

A friend wrote an interview book, it seemed like a good way to explore the above question.

I work from home. So my cubicle mates could be anywhere. What if could ask top programmers questions as if they were my cubicle mates?



- It's totally subjective
- A good mix of all the skills
- **Not** a jerk
- Someone you'd work really hard to hire onto your team







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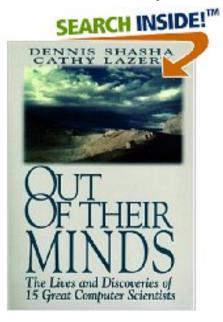


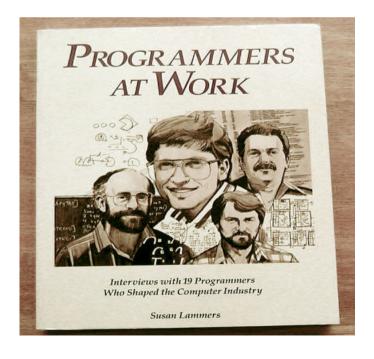


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NO ONE IS THE FIRST TO DO ANYTHING

- Susan Lammers: Programmers at Work
- Shasha, Lazere: Out of Their Minds



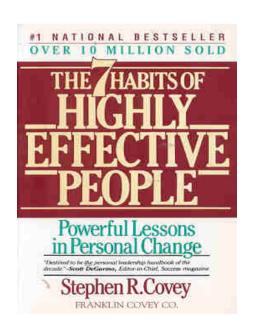


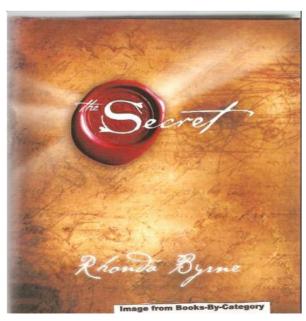




Character Attribute

- Habit (as in *The Seven Habits of Highly Effective People* by Steven Covey)
- The Secret by Rhonda Byrne





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Ancient Secrets



Modern Secrets







James Gosling is wary of categorization











James Gosling is wary of categorization







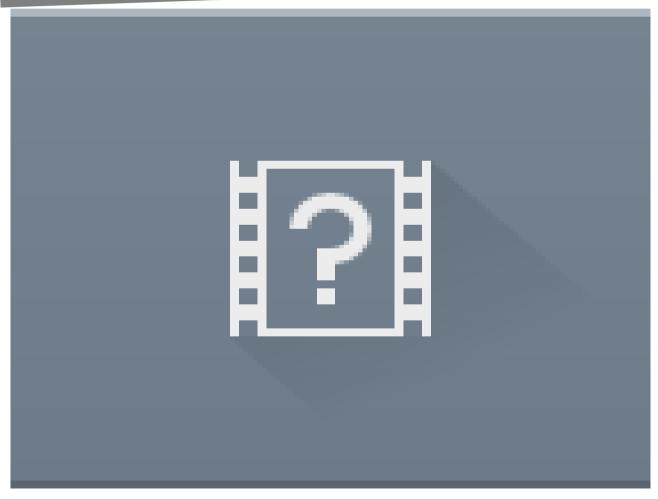
Adrian Colyer thinks it's useful

Aspect Oriented Programming Pioneer



Venture partner at Accel









HUMILITY AND CELEBRITY

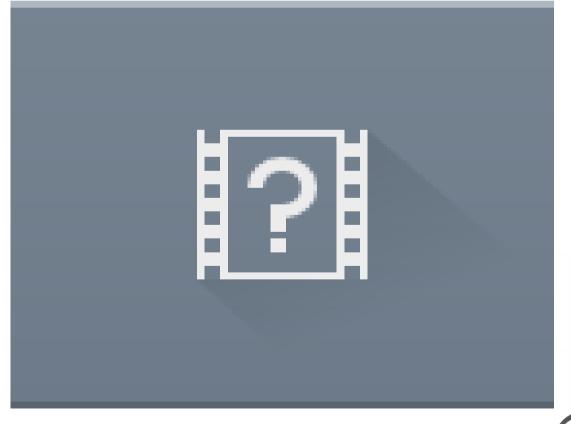
James Gosling on being known as "The Father of Java"





HUMILITY AND CELEBRITY

James Gosling on being known as "The Father of Java"







Things that have been true since at least the dawn of western civilization

- Balance between humility and pride
- * Awareness of one's own ignorance
- * The Importance of Collaboration
- * The Invisible College
- ★ Luck



PRIDE TEMPERED BY HUMILITY

The dangers of hubris: Achilles



Pride goes before a fall

Rabbi Simcha Bunim:

"Every person should have two pockets. In one, there should be a note that says 'for my sake was the world created.' In the second, there should be a note that says, 'I am dust and ashes."

https://en.wikipedia.org/wiki/Simcha_Bunim_of_Peshischa



PRIDE TEMPERED BY HUMILITY

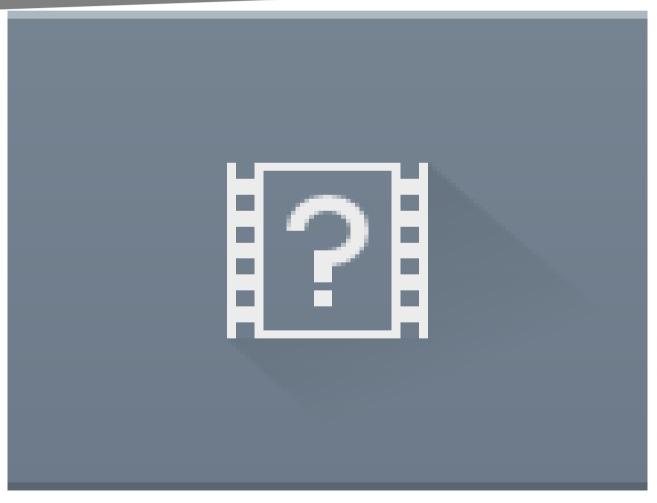
Rod Johnson, creator of the Spring Framework



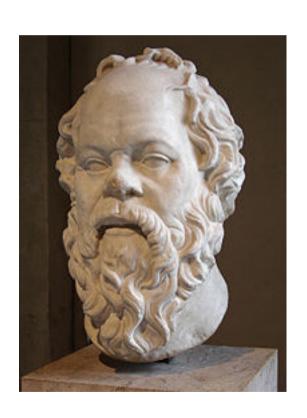




PRIDE TEMPERED BY HUMILITY



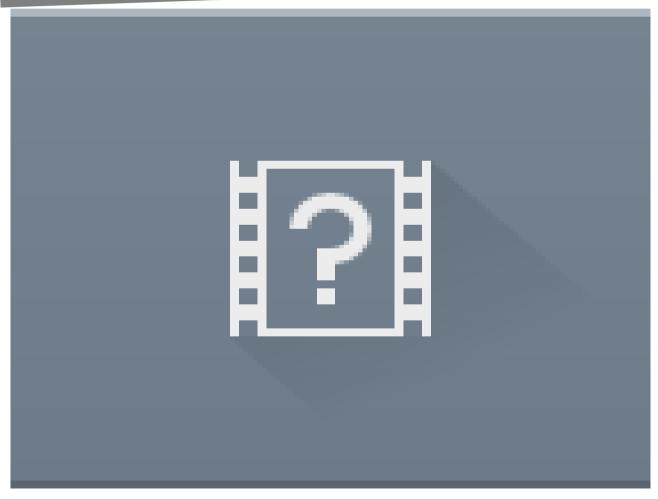




Socrates contests the Oracle's claim that he is the wisest man. Socrates *interviews* the wisest men, none of them are aware of their ignorance. Socrates concludes the Oracle is right because he's the only one aware of his own ignorance.



- Phillip Armour, October 2000 CACM
- © 0th Order Ignorance: Lack of Ignorance
- 1st Order Ignorance: Lack of Knowledge
- 2nd Order Ignorance: Lack of Awareness
- 3rd Order Ignorance: Lack of a *Suitably Efficient* process to get to 201
- 4th Order Ignorance: Meta-Ignorance

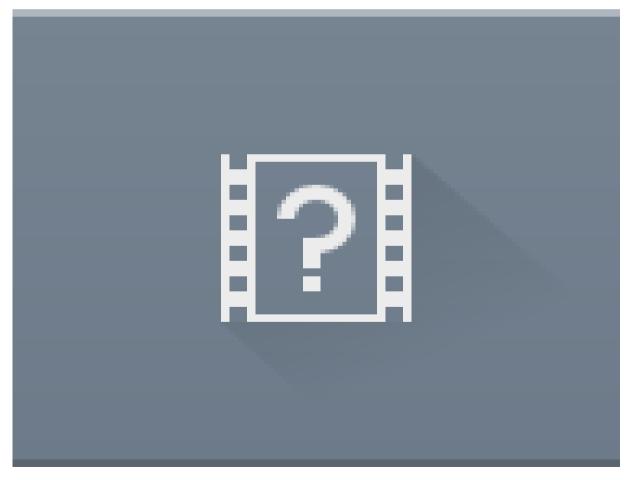






- Courage in the face of other's expertise
- Willingness and ability to share your own expertise







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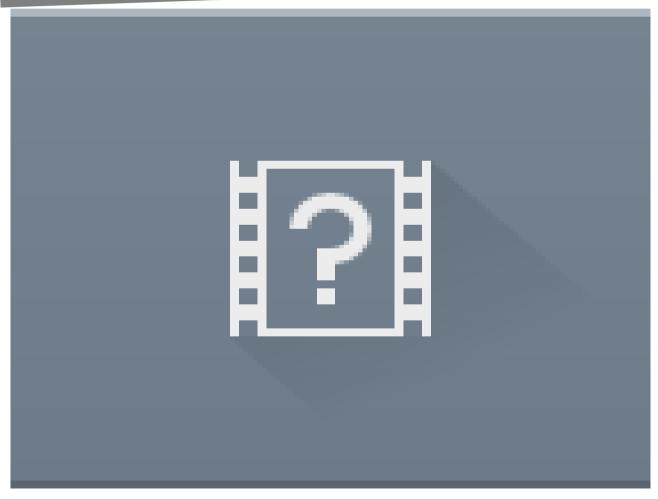




Meta-Cognition. Knowing when to step away from the keyboard.













Trust your intuition when evaluating the hot new thing





QUESTION CONVENTIONAL WISDOM

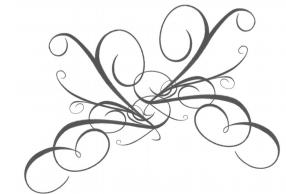




COLLABORATION

- Odysseus and his crew get back home
- Aeneas and his survivors found Rome





COLLABORATION



"Fit gets rarer as I get crankier with age."



Andy Hunt, co-founder of the Pragmatic Programmers

COLLABORATION







THE INVISIBLE COLLEGE

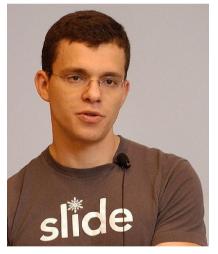
- Tyco Brahe, Johannes Kepler & co: annotations in books
- Unfiltered, informal communications produced by communities of people who share an interest in a common subject or discipline.

http://www.lib.uconn.edu/using/tutorials/research/HTML/Infocycle/Sources/infocycle_01.htm



THE INVISIBLE COLLEGE

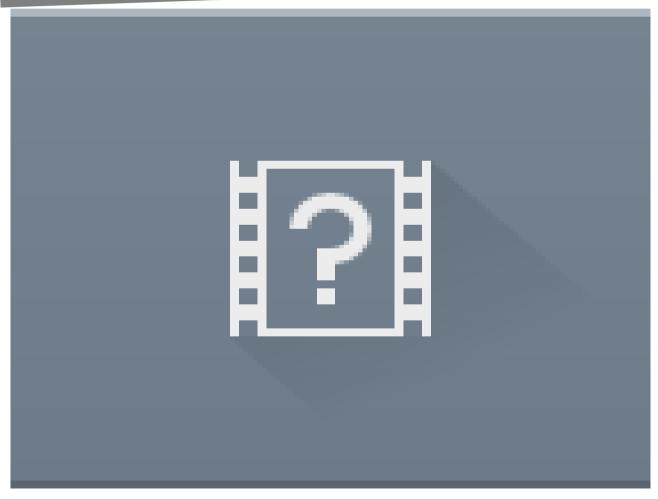
Max Levchin, co-founder of PayPal





Libor Michalek, co-founder of Slide.com

THE INVISIBLE COLLEGE





LUCK, FATE, DESTINY

- Rod: "Competent people tend to be luckier"
- Floyd: "[Career] Luck can be highly influenced by you"
- Kohsuke Kawaguchi: Hudson Continuous integration framework,
 - be aware of opportunities



LUCK, FATE, DESTINY

Dave Thomas, Object Oriented Software Pioneer, founder of Object Technology Inc.





LUCK, FATE, DESTINY









Things that have only recently emerged as useful in the work of a practicing programmer

- * Mastery of tools, being an optimizer and customizer
- * Software: how to write it, fix it, maintain it
- ★ Discerning technology trends
- ★ Motivation
- * Knowing when it's time to change jobs
- * Having a non-IT plan B



The most successful programmers are often the ones who are the best with their tools.



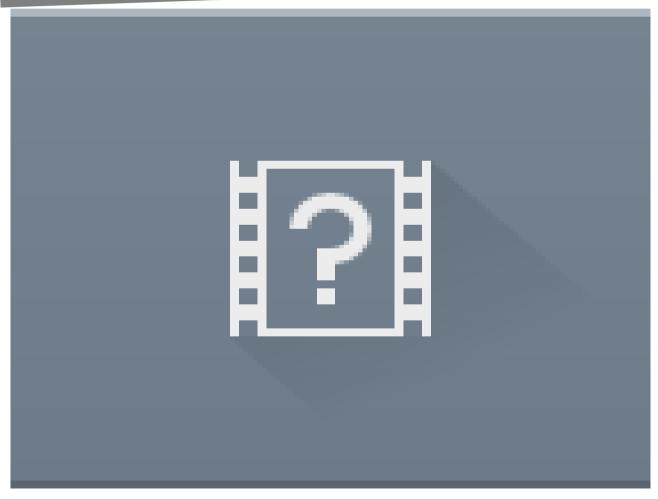
"Smooth out the ripples in their environment"

Chris Wilson, Lead Architect of Microsoft Internet Explorer



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Mindset of continual optimization











The Safety Net









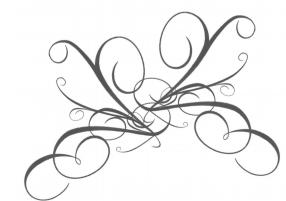






The Safety Net

- Mastery of version control
- Comprehensive Unit tests
- All software dependency management and artifact creation is automated and under version control "It's pretty safe to do almost anything to the code base."







How to write good patterns

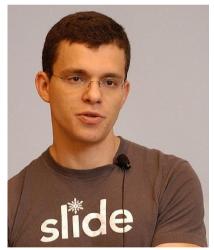
- Ability to recognize a pattern when it comes along and bites you
- Ability to how to encapsulate the context





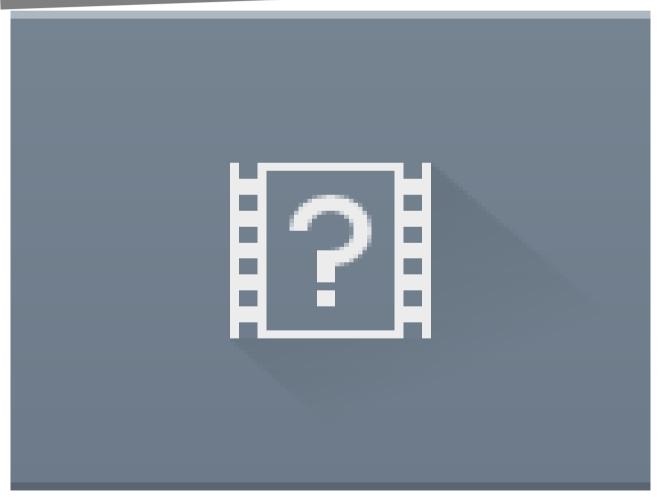
WHERE DOES THE PRODUCTIVITY COME FROM?

Max Levchin, co-founder of PayPal





Libor Michalek, co-founder of Slide.com









"Max: ten years"













Time to get beyond Gutenberg









GETTING A NEW IDEA ADOPTED



"Getting bankers to use garbage collection"





"Find a way for the consumers of the platform to make money."



BUSINESS ACUMEN, CAREER

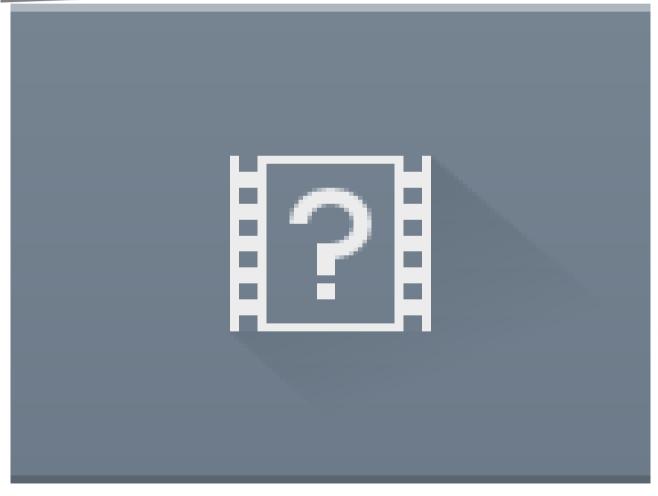


"How far can you progress just being a really good programmer?"





BUSINESS ACUMEN, CAREER



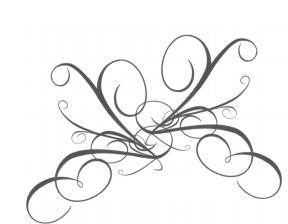




TAKE A TANGENT EVERY NOW AND THEN



"It enabled me to stay relevant in a very different way."



TAKE A TANGENT EVERY NOW AND THEN



NON-IT PLAN B



"I probably wouldn't go for another high powered career. I'd like to be a forest ranger."





"Joe: I would race cars in a heartbeat.

Dick: I'd like to be a detective and find out what happened."



- Balance between humility and pride
- Awareness of one's own ignorance
- Questioning "Conventional Wisdom"
- The Invisible College
- **Luck**

- Mastery of tools, being an optimizer and customizer
- Software: how to write it...
- Discerning technology trends
- **Motivation**
- Knowing when it's time to change jobs
- We Having a non-IT plan B

Ed Burns http://ridingthecrest.com/

