

(St)art of Engineering

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Conclusion

- Socratic
- Listen then communicate
- Keep Learning

Disclaimer

- Software Developer
- Not familiar with other engineering disciplines

Socratic Method

- Questions for clarification
- Questions that challenge assumptions
- Questions that challenge evidence
- Questions about perspectives
- Questions that challenge consequences or benefits
- Questions about the question

6 Hats

- Blue – top level view, consensus on the main question(s)
- Red – emotions, feelings, biases all shared without judgment
- White – facts
- Green – solutions
 - Yellow – good about each solution
 - Black – bad about each solution

What is the big deal?

- “Art is kinda boring and has nothing to do with code”
- Architect story
- Technical skills don’t get jobs, technical skills get interviews
- Technical skills don’t get promotions, technical skills get consideration
- Career paths:
 - Head Engineer – need “soft skills”
 - Management – need “soft skills”

All careers have a creative component

“Software is the only art form not limited by the laws of physics.”

-Anonymous (maybe Aaron)-



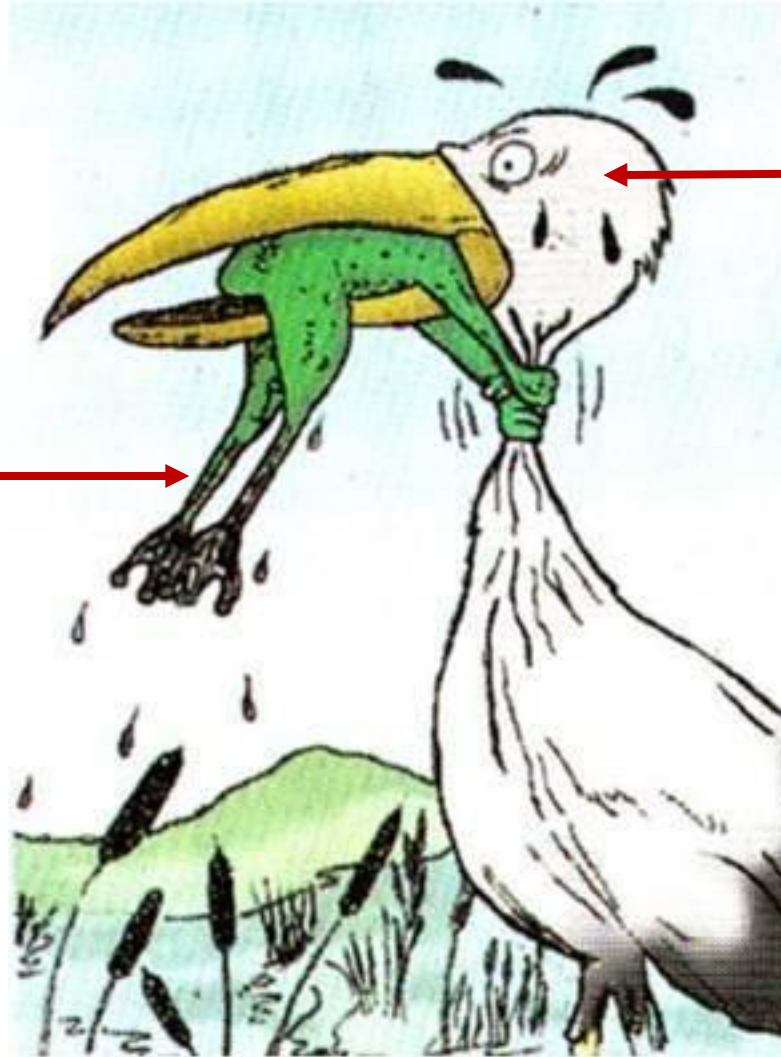
Play-Doh by Jeff Koons

When does a couch become a piece of art?

Engineering is a craft

- Technical skills are the hammer and chisel
- “This code is ugly”
- Need to sell product
- Communication is key

Engineering



Marketing



BUSINESS

Volkswagen exec blames rogue engineers for emissions scandal

By Associated Press

October 8, 2015 | 5:15pm



Volkswagen CEO testifies before the House Committee on Energy and Commerce Subcommittee on Oversight and Investigations on the Volkswagen emissions cheating scandal on Oct. 8.

Photo: Getty Images

“To my understanding this was not a corporate decision, this was something individuals did,” Horn said, adding that he felt personally deceived.

“A clever person solves a problem.
A wise person avoids it.”

-Albert Einstein-

“The most important skill in acting is listening.”

-Al Pacino-

Lessons in Listening

- Listen to customers
- Understand scope
- Get to heart of issue
- Adjust to what is important
- Listen to managers, testers, other teams, etc.

Truth

- Investigative journalist
- Discover truth, don't try to create it
- If you don't know your customers → no one wants what you built
- Emotions become tightly coupled with the truth

“The person who knows HOW will always have a job.
The person who knows WHY will always be his boss.”
-Diane Ravitch-

Job Candidates

- No technical skill, no job
- Two sliders
- Non-technical skills
 - Effective communication
 - Proactive, ask tough questions
 - Transparency
 - Coachable
 - Team mindset
 - No ego

“If you can’t explain it simply, you don’t understand it well enough.”

-Albert Einstein-

“Everyone lives by selling something.”
-Robert Louis Stevenson-

Keep Learning

- Every 3 years, completely different
- Stay sharp – career insurance
- In an interview “I don’t know ~~but I can search for that.~~”
- Not a 40-hour week job

Balance

- Don't burn out
- Have outlets (family, friends, hobbies, side projects, etc.)
- Marathon
- Have fun!!!

Network

Requirements:

- Meet at least two new people
- Sell yourself (major, goals, etc.)
- Exchange contact information (email, LinkedIn, etc.)

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- Communicate
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Q & A