

Brief History of Time

Ph.D. (UMass)

→ CS @ Texas A&M

→ ECE @ UIUC

→ CS @ Georgetown

Fault-tolerant
computing

→ Wireless
networks/systems

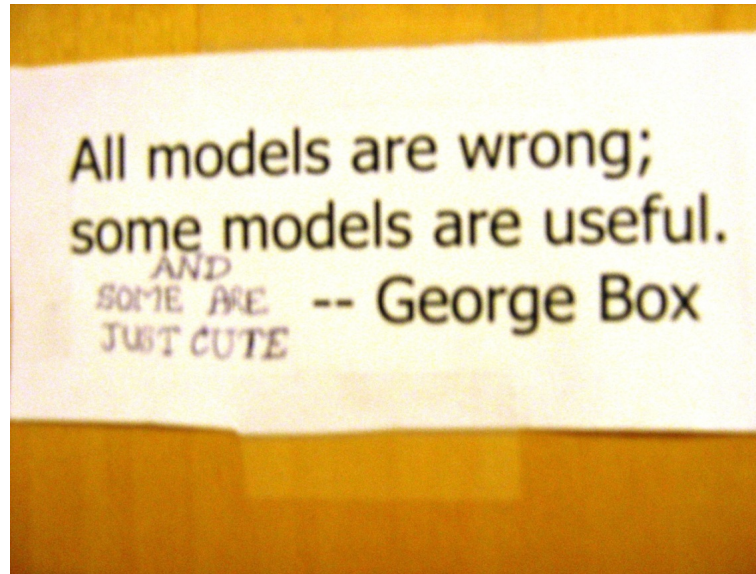
→ Distributed
computing theory

How to Succeed in Academia Without Really Trying

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Caveat: Use advice at your own risk



First Things First

How to **Succeed in Academia** Without Really Trying

First Things First

- Know why you are in academia

First Things First

- Know why you are in academia

- Teaching

- Independence

First Things First

- Know why you are in academia
 - Teaching ... don't like teaching? **Leave** academia
 - Independence ... don't let others define *success* for you

First Things First

- How do you define success?

First Things First

■ How do you define success?

- Fame?
- Fortune?
- Innovation?
- Impact?
- Happiness?

First Things First

■ How do you define success?

- ~~Fame?~~
- ~~Fortune?~~
- Innovation?
- Impact?
- Happiness?

How to Succeed in Academia Without Really Trying

Outline

- It's all about expectations
- Work is easy when you are having fun
- Anybody can be busy, *not* being busy takes work

It's All About Expectations

Secret to happiness is to
lower your expectations to the point
where they're already met

So the secret to good self-esteem is to lower your expectations to the point where they're already met?

- Hobbes

Expectations

- Set higher expectations
- Focus on quality, not quantity

CS community moving in the wrong direction
... greater quantity in the name of better quality

Expectations

■ Papers

- Not enough to publish (lots of) papers
- You want people to **read** them too
- What sets apart better-known papers from others?

■ Proposals

- Good ideas alone not enough

Expectations

- Do unto others as you would have done unto you

- ... think from the perspective of the reader

- ... don't annoy them

Proposals

- First 2-3 pages should suffice ... rest is details
- Make key ideas easy to find ... boxes, itemization
- Ample white spaces ... less is sometimes more
- Picture worth thousand words

Proposals

- Writing better **doesn't** mean more work
- Read good papers / proposals
- Get colleagues' feedback **before** submitting for review
- **Follow** funding agency guidelines
- Serve on NSF panel ... learn from the dynamics

Outline

- It's all about expectations

- Work is easy when you are having fun

- Anybody can be busy, *not* being busy takes work

Independence

- You are your own boss

... make the most of it

... but there is no one else to blame

Independence

- Don't fret tenure ... it's not the holy grail
- Work on what you like ... not necessarily the hot topic
- Choose projects to match your strengths ... not trends
 - large/small
 - systems/theory
 - research/education/broader impact

Independence

Assistant → Associate → Full

... Retire?

Independence

Assistant → Associate → Full ... Retire?
→ Chair → Dean ...

Independence

Assistant → Associate → Full ... Retire?
→ Chair → Dean ...

- Start-ups
- Consulting
- Textbooks

Independence

Assistant → Associate → Full ... Retire?
→ Chair → Dean ...

- Start-ups
- Consulting
- Textbooks

Assistant → Associate → Full → Don't "Retire"

Independence

- Change can be good

Independence

■ Change can be good

- Academia lets you work on things for which you have **no competence**
- Exploit this to get into new areas
- Make connections with folks **well outside** your comfort zone

Distributed
Control

Distributed
Computing



Distributed Computing

Hajnal 1958

Weak ergodicity of non-homogeneous Markov chains

1980: Pease, Shostak, Lamport

Byzantine consensus

1983: Fischer, Lynch, Paterson

Asynchronous impossibility result

Tsitsiklis 1984:

Decentralized control

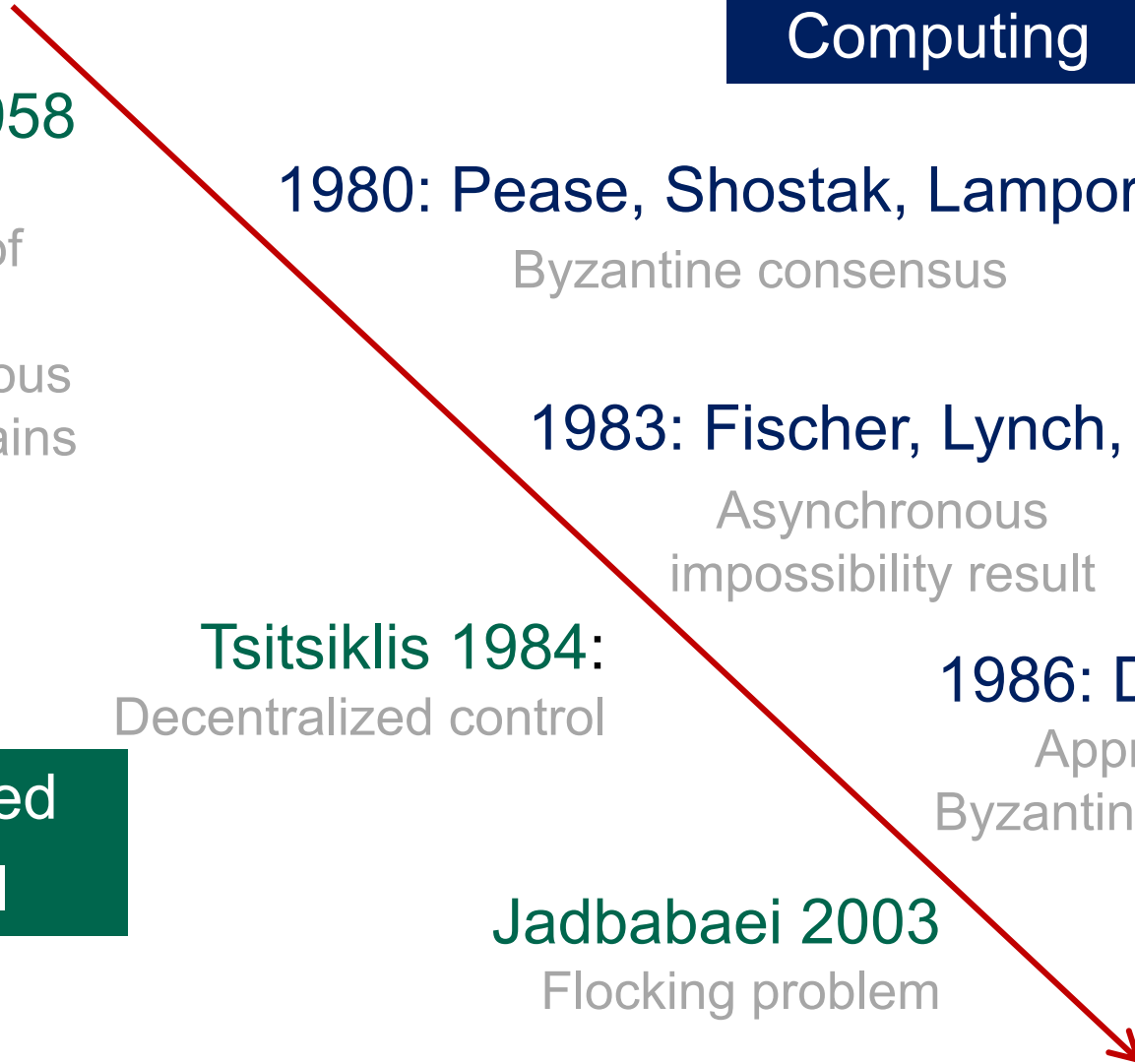
1986: Dolev et al.

Approximate Byzantine consensus

Distributed Control

Jadbabaei 2003

Flocking problem



Independence

■ Change can be good

- Academia lets you work on things for which you have **no competence**
- Exploit this to get into new areas
- Make connections with folks **well outside** your comfort zone
- Perspective you bring from other areas beneficial

Independence

- Change can be good
 - Changing jobs invigorating
 - New environment, new collaborators, new perspectives
 - Tenure's downside ... inertia

Independence

If you are not having fun doing what you do,
why bother being in academia?

Anybody Can be Busy, *Not* Being Busy Takes Work

Easy to be Busy

- Bigger isn't necessarily better
 - Too many program committees, organizing activities, editorial boards
 - Too many students
 - Too many grants
 - Too many meetings

Easy to be Busy

- If you are too busy, you are doing something wrong
 - Learn to say no
 - Make time for things that require deeper thinking

Easy to be Busy

■ If you are too busy, you are doing something wrong

- Learn to say no
- Make time for things that require deeper thinking

- Take care of yourself
... nothing else will matter if you don't have health

Conclusion

- It's all about expectations
- Work is easy when you are having fun
- Anybody can be busy, *not* being busy takes work

Thanks!

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