Academia vs Industry: Choose Your Own Adventure

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A vs B: So Simple, Right?

Industry could be:

- Engineer
- Research scientist
- Eng manager
- Corporate Leadership
- Consulting
- Government
- Start-up

Academia could be:

- Professor at research-oriented university
- Teaching-oriented position
- Academic administration
- Research associate

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Turn and Talk to Your Neighbor

What is your plan:

Industry vs Academia vs Undecided?
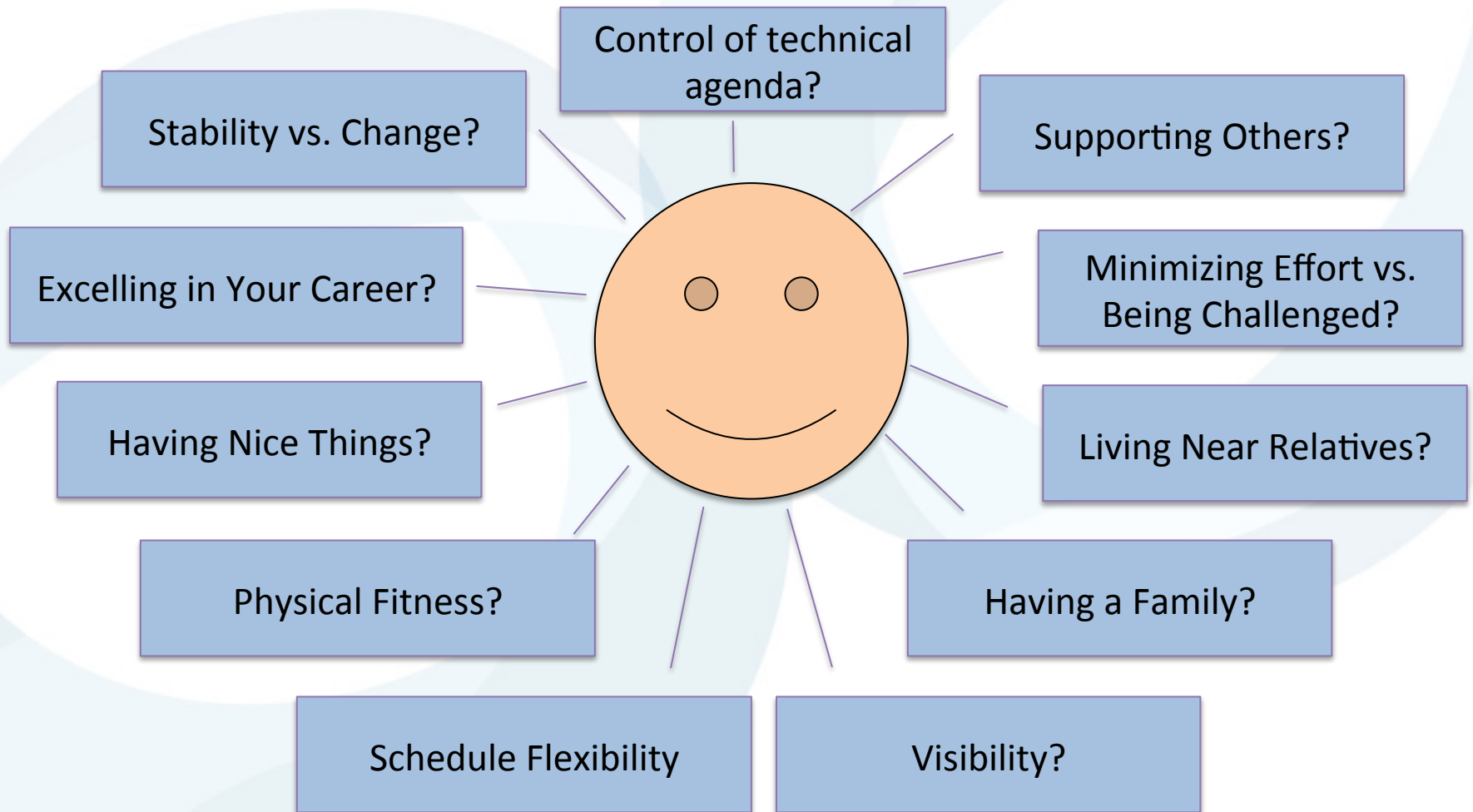

Why? What do you enjoy?

What is Important to You?

Must-haves vs. Nice-to-haves?

- Control of technical agenda?
- Stability vs. Change?
- Supporting Others?
- Excelling in Your Career?
- Minimizing Effort vs. Being Challenged?
- Having Nice Things?
- Living Near Relatives?
- Physical Fitness?
- Having a Family?
- Schedule Flexibility
- Visibility?

Does What You're Doing Align With What's Important to You?

- What you value most could change over time

- Absolutely no one is in your exact situation

- A PhD gives you options

- Be true to yourself and your values

- Don't be afraid to course correct

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Academic Careers

Traditional Professor/Instructor Roles

Different Types of Programs

Research universities: Ph.D. program - emphasize *research*

Colleges/universities: M.S. program- emphasize *teaching*

Teaching-oriented colleges: B.S. program – emphasize *teaching & service*

What can I do now to prepare for an academic job?

Research

Apprenticeship: learn from advisor, doing it, and from others

Grant writing

Corporate connections (for funding, student job placement)

Teaching

Teaching experience, teaching assistantship, teach some even if don't have to

Professor-in-training programs, courses

Service

Organizing student organizations/support groups – Women in CS

Working on department committees

Volunteering at conferences

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Academic Career Ladder

Professorial Ranks
Assistant: Tenure-track, 5-7 years
Associate: Usually with tenure
Full (no set time limit to achieve)
Chaired Professor – endowed

Administrative Ranks
Department Chair/Head, Dean, Provost, President

Instructor
Can vary significantly on course load
Some roles offer tenure equivalent

Postdoctoral/Research Associate
Usually on "soft money"

Industry Careers

Industry Careers

Role	Visibility	Flexibility
Engineer	Low	High
Research scientist	Medium	High
Eng Manager	Medium (all internal)	Medium
Corporate leadership	High	Low
Consulting	Low	Varies/Low
Government	Medium	High
Start-Up	Low	Low

Same role can vary a lot from group to group

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Moving Between Industry and Academia

From University to Industry

Must build real systems

Establish visibility and knowledge in industry

From Industry to University

Must continue publishing

Establish visibility and reputation in research community

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For Your First Job

Neither requires prior experience; your degree is your ticket.

Academic jobs are more rare:

    more competitive

    require more patience

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All Choices are Valid!

People move in all sorts of directions

Do what you love

If you don't love what you're doing, do something else

A PhD gives you that option

Take ownership of what you do now and what you want to do next