Building Your Career
- Is Grad School for me?

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Matunda Nychama – Short Bio

• Delivery Project Executive, Managed Services, Global Technology services, IBM Canada

• Experience:
  – 11+ years in consulting – IT & IT Security with focus on financial services and security product development
  – 7+ years in telecommunications engineering

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Things to Ponder

- What are your goals?
  - Short Term? Long Term?
  - Are these in academia or industry?
  - Do you want to be a Technology Practitioner or Technology Manager?
  - Do you aspire to be an entrepreneur?

- How will an advanced degree help you reach those goals?

- What other alternatives would lead you to attain those goals?

- Are you willing to invest the extra time, effort and (yes) sacrifice to complete graduate school?

- What is the “opportunity cost” of going to graduate school?

- Do you need to do it right away or after a break following your undergraduate degree?

- At what stage of life are you? Single? Married?
The Value of Grad School

• Graduate schools mean different things to different people, examples:
  - A means of affirmation and a journey towards personal fulfillment
  - A way to enhance personal status
  - A chance for unique opportunities (e.g. pursuing an academic career and engaging in academic inquiry of choice)
  - A chance to contribute to discovery of knowledge and contributing for posterity’s sake
  - A journey to independence
  - (In some cases) a chance to earn more money in the future
What is Grad School?

• Masters Degree
  - May take up to 2 years (I know someone who took 7!)
  - Has coursework + a project/research thesis
    • Should you aspire to do a PhD need Masters thesis option
  - Costs
    • Tuition + monthly living expenses for time in school

• Ph.D. Degree
  - Anywhere from 4 - 7 years
  - Coursework, seminars, research, conference presentations, journal publications and (in some cases) teaching
  - Research required
  - Specialization – knowing a lot about a narrow area in your field
  - Costs
    • Tuition + living expenses for the time in school
Considerations

• Do you enjoy exploring new ideas and learning?
• Do you like being an expert in an area that excites you?
• What do you prefer?
  – Constant change or constancy?
• Do you prefer independence of thought and intellectual debates with people in your area of interest?
• Are you ticked by discovery of new knowledge and sharing this with peers/students?
• What is your financial situation? How does pursuing the above impact you financially?
Pros & Cons of Undergraduate Degree

• Bachelor’s Degree
  – Good entry-level salary (especially for engineers) - $50K in 2002
  – More jobs at entry level – pyramid tightens towards the top
  – Less control of day-to-day job requirements/tasks
  – No incentive for employer to promote you
    • Promotion usually means more money!
    • For some promotion is attained by “job hopping”!

*Quoted from Computer Science Graduate School University of Virginia*
Master Degree – Pros & Cons

• Pros
  – Better starting salary ($70k)
  – Many job openings
  – Potential to start at management level
  – Opportunity to swap jobs
  – (Possibly) more control of day-to-day tasks

• Cons
  – May not be in charge of project
  – 1.5 - 2 years of lost wages (less if paid during school)
  – May become bored by repetitive tasks
  – Possible frustration due to environment/employee and (possible) lack of support from senior management

Quoted from *Computer Science Graduate School University of Virginia*
Is Graduate School for You?

• Ph.D. Degree Benefits
  - (Possible) better starting salary ($90k+)
  - Large amount of control over work
  - Opportunity to teach in university
  - Management skills assumed
  - You’ll be the world’s expert in a selected area

• Ph.D. Degree Cons
  - 3 - 4 years of income beyond the masters is lost
  - Overqualified to make large jumps between fields
  - It’s a lot of hard work with few clear paths

Quoted from *Computer Science Graduate School University of Virginia*
So is Grad School for You?

• There are pros and cons and opportunity cost

• Amount of Hard work
  – Graduate school takes extra work; and hard work at that.
  – PhD studies and subsequent apprenticeship take a long time (e.g. 10+ yrs) and some of the most challenging work one would ever engage in.

• Competitiveness
  – A graduate degree can make you more competitive than the guy sitting next to you at work; an MBA on top of a technical degree is even better!

• Financials: some stats estimate
  – $230K more lifetime earnings for individual with Master’s degree over one bachelor’s degree.
  – $500K more lifetime earnings for one with a PhD over one with a Master’s degree.
If Grad School is for you

• When?
  – After a break or soon after undergrad?

• In what field? What specialization
  – In the same field (engineering) or some other field, e.g. MBA?

• What schools?
  – Reputation? facilities? Faculty?

• What cost? How do you finance this?
  – Scholarships, assistantship (research/teaching)
  – Support from supervisor

• What Opportunities after grad school?
Opportunities

• Canadian (and North American) academic and research workforce is aging
• The baby boom effect: a largest segment of baby boomers will be retiring within the next 10 years; from estimates:
  – Up to 20% of current faculty will retire in that time
• Canadian universities thought to seek 30,000 new faculty between 2002 and 2010; and perhaps more in the future.
• Changed attitudes towards research means that funding can be assured
  – Many western governments appreciate the value of research for global competitiveness – think of the Internet, the web and companies such as Google, Microsoft, Apple and the like.
• For visible minorities:
  – Most institutions (including higher learning & research) have embraced diversity; but you still have to perform!
Summary

• Grad school is your choice to make
• Know your goals and determine how best to fulfill them
• There are pros and cons to proceed; consider your own goals and aspirations
• More opportunities exist for bachelor’s degrees; they narrow as one goes up the corporate pyramid
• Life-time earnings for people with advanced degrees exceed those for ones with undergraduate degrees
• Choose your timing correctly; doing grad school after some work experience can help in cementing your aspirations and in line with market opportunities
• Opportunities for advanced degree holders will keep growing here in Canada: what with the retiring baby boom generation!
Questions?

Thank You