

The Grad Toolkit

Tips and Tricks for Success in Graduate School

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Is there a need for a toolkit?

- Yes
- Academicians, especially students, are on paths of individual discoveries of public resources. Each finds some resources, but all miss resources they could have put to good use.
- Smart computing is no longer 'smart'; it is a must.

Am I an expert?

- No
- In hindsight ...
- There is an expert in this room for every topic I will touch upon.
- As an international student, I understand our ignorance of things obvious to an American.

And so ...

- This is not a talk, but rather a conversation
- We can all benefit from each other
- A call to arms for the department
- Don't mind the specifics
- I am not getting a check from any product/brand endorsed here

Topics

- Data Disaster Management
- File & Folder Searching in Windows
- Working with PDF files
- Reference Management
- Literature Search
- NCSU Resources
- Conferences
- Brand “ME”
- On Research

Data Disaster Management System

- Backup | Encryption | Recovery | Destruction

Data Backup

- 2 external hard drives, a backup software, discipline
- Geographically separated data: home, office
- A third drive FAR away or consider online storage (space?)
- WD My Passport Drive and AmazonBasics Case
- Syncback (run) and FreeFileSync

Data Encryption

- Protect IP
- Reduce Risk
- TrueCrypt

Data Recovery

- STOP! or somebody's mom will shoot
- Recuva and Power Data Recovery

Data Destruction

- It's a big FAT lie
- 0s and 1s; single pass and multipass
- Standards – DoD, NIST, Secure Erase
- CCleaner, HDDErase (gone?), and DBAN

File & Folder Searches

- Windows 7 indexing is powerful : control panel > indexing options
- Use the Advanced Query Syntax
 - [Microsoft](#)
 - [HowtoGeek](#)
- A [consistent](#) file naming convention will prevent brain dump

Portable Document Format (PDF)

- Install PDF [iFilter](#)
- Windows cannot see inside PDFs, on 64-bit systems
- Consider [Adobe Acrobat Pro](#)
- Edit > Advanced Search
- ClearScan is the clear choice


Reference Management

- [EndNote](#) | [Mendeley](#) | [RefWorks](#) | [Zotero](#)

Reference Management

- Zotero examples
 - Get citations
 - Get metadata
 - Word inline citations
 - Citation Styles
 - Creating Bibliography
 - Tags and Notes

Literature Search & Autoupdate

- Databases should be your home base
- Your new best friend is RSS 
- For example, the CCEE feed (* /feed/)
- Create accounts and alerts in Google Scholar, Web of Knowledge, Engineering Information

NCSU Resources

- Research Workshops
- Research Consultation
- Technology Consultation
- Thesis and Dissertation Support Services
- Graduate Writing Center
- Preparing Future Leaders

Conferences

- When you attend, you are investing in yourself
- Plan few months in advance
 - Design your agenda
 - Do not hesitate to ask for list of attendees for small Conf.
 - Write to people you'd like to meet
 - Plan to run in to people who did not reply

Conferences

- Read latest and important articles of people to meet
- Feel free to ask for introductions
- Ask questions; informed & inquisitive, not fussy
- Get involved in 1 or 2 committees
- Never be without business cards, pen, and pad
- If presenting: familiarity & armed (pointer, recorder)

Conferences

- Pitch for academia and industry
- Prepare to stay up for long hours; stay hydrated
- Stay in Conf. or nearby hotel

Brand “ME”

1. Invest in a professional portrait
2. Create your online presence
3. On LinkedIn: follow groups, ask & answer, get recommendations
4. Write a blog, service to the community
5. Invest in a domain and permanent online presence

On Research

- A scholar is emotional about learning and gaps
- Know the order: Why > How > What > When
- Research is a way of life. Expect arguments at home.
- Research happens 24 x 7; stay up to date
- Sometimes research comes before family
- A good PhD. is the *greater* expert in *their* field (compared to their advisor)

On Research

- Willingness and ability to learn new daunting methods
- Ability to synthesize information, questions, and answers
- Writing must be elegant and convincing
- What is your 'elevator speech'?

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Ideas & Questions Invited

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