Getting Started in the Lab: Tips for Surviving the First Two year

A.J. Brush

Christine Morin

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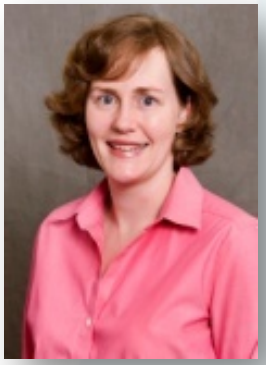
I invent new technology for the home



A.J. Brush

B.A. in Computer Science from Williams
1992- 1996

Ph.D. in computer science from UW
1996 – 1998, 1999 – 2002

Software Developer at Tripos
1998 - 1999

PostDoc, UrbanSim project at UW
2002 - 2004

Principal Researcher, Microsoft
Human-Computer Interaction (HCI)
2004 - 2016

Principal Program Manager, Microsoft
Cortana, 2016 - 2017

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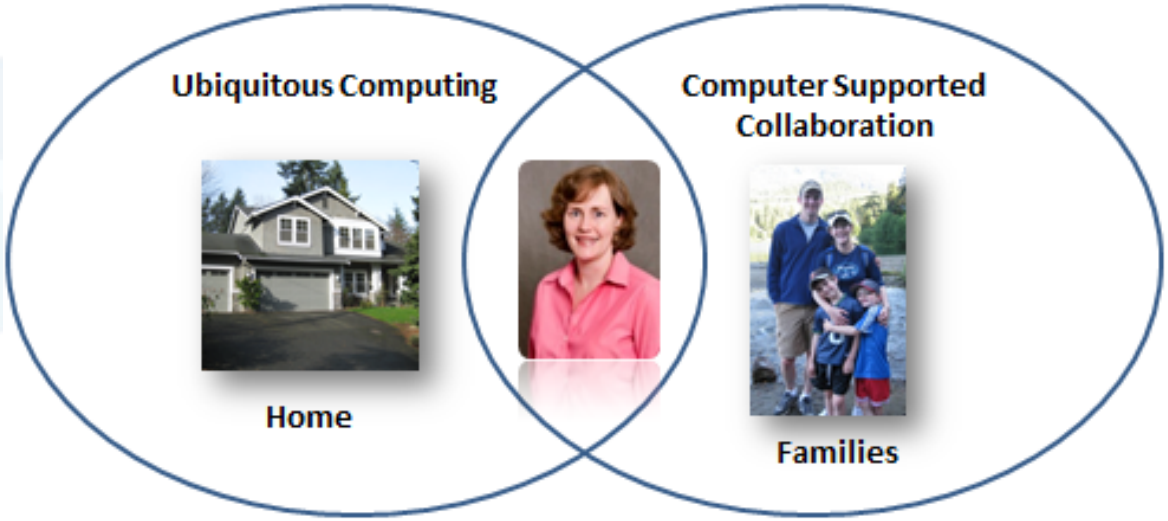
How do/did I spend my time?



We are evaluated on:

- Research impact
- Product impact
- Patents

Things I do:

- Research Projects
- Go to meetings/answer email
- Consult to product groups
- Service (Internal/External)

Changes week to week

Who I am?

Christine Morin

Senior Scientist at Inria, France, Head of Myriads project-team

Inria PARIS - Rocquencourt

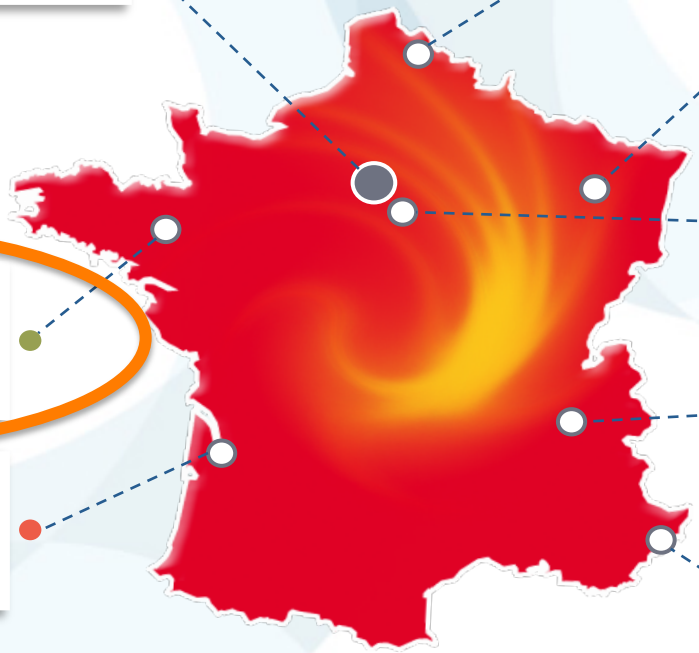
Inria LILLE
Nord Europe

Inria NANCY
Grand Est

Inria SACLAY
Ile-de-France

Inria GRENOBLE
Rhône-Alpes

Inrja SOPHIA ANTIPOLIS
Méditerranée



Inria RENNES
Bretagne
Atlantique

Inria BORDEAUX
Sud-Ouest

I design systems for large scale computing infrastructures

1982-1987 INSA Engineering school (**software engineering**), Rennes, France
1986-1987 **Master in Computer Science**, University of Rennes 1
1987-1990 **PhD thesis in Computer Science**, University of Rennes 1
1990-1991 **Assistant professor**, University of Rennes 1
1991-2000 **Junior researcher**, Inria
1998 HdR (degree to become full professor or senior scientist)
2000-2002 **Associate professor**, University of Rennes 1
2002-present **Senior scientist**, Inria
2006 **Co-founder** of Kerlabs **start-up**
2009-present Myriads **research team leader**
2011-2013 On sabbatical at Lawrence Berkeley National Lab, USA
2011-present **Affiliate,** Lawrence Berkeley National Lab

Things I do

- Write project proposals
- Advise interns, PhD students, postdocs
- Read/write papers, progress and annual reports, deliverables
- Review papers, application files, PhD and HdR thesis, projects, labs
- Attend conferences
- Contribute to team, Inria
- Spend time in meetings and dealing with emails
- Travel
- Teach a little bit

How are we evaluated?

Inria's mission
Scientific excellence for technology transfer & society

- Publications
- Visibility at international level
- Software

Impact

- Technology transfer
- Collaborative projects (industry, European)
- Societal impact

Contribution to the team & lab life, mediation, teaching

Life AT LABS

Industry Labs

- Wide range of opportunities
  - PARC, Microsoft, IBM, AT&T, Nokia, Motorola, Google, Amazon, Intel ….
- Dimensions they differ
  - Research flexibility: Do you choose your own projects or get direction from product groups?
  - Funding models (e.g. separate division, sponsored by product teams)
  - Participation in research community (e.g. publishing)
  - Team/Research group structure

Life at a Government Lab

- Collaborative environment (cross domain)
- Possible to work on a wide array of subjects
- Basic or applied research – mission driven
- Soft money, block grants, budgeted funds
- Flexibility: can often set your own hours
- Managed environment
  - May be harder to develop your own research program vs. working on an existing program
- Taxpayer money: limit on daily perks!

Applied Research

- Team projects
  - Junior researchers are often members of a team
  - Team will most likely have some goals/deliverables that are not exclusively research
  - The research will frequently be a team effort as well
- Setting research agenda
  - Usually requires some time at lab
  - Must be relevant to lab's strategic mission

Pro's/Risks

Pro's:

- Funding "taken" care of
- Typically well-resourced (travel, etc.)
- Ability to have direct impact on products/people
- Relatively easy to adjust research direction/try new areas

Risks:

- Labs can change (e.g. Intel Research labs closed spring 2011)
- Companies sensitive to economic climate

Steps TO SUCCESS

Starting Out: Mentors

- Find mentors
  - You may or may not have a formal mentor
  - Different mentors for different activities (research, program activities, lab politics, etc.).
  - Include someone outside your reporting chain!
  - “1/2 hour of your time”
  - Ask for advice, tips, introductions, stories.
- Participate in the research community
  - Attend talks and read papers
  - Go to conferences, give talks, publish papers

Starting Out: Visibility

Working in many different areas can have benefits

- But do not become so fragmented you can't do your best on each task.

Establish a reputation at your lab for good work. Be visible.

Establish your expertise and find your community.

Find what conferences you want to publish in.

Community service (program committees, reviewing) are not rewarded as much as in academia, but important for your growth as researcher.

Starting Out: Publish

"Publish or perish" is not purely for academic researchers

Research community values publications as the means of vetting and spreading ideas

Career mobility is relatively limited if publications stop.

Getting Known Inside the Lab

- Produce great work and make it known
  - Write papers/technical reports
  - Give talks within the lab. If your lab has an education or outreach office, get to know them.
  - Your manager(s) should be praising you to others. Make it easy for them by providing updates, slides, demos.
  - Share appropriate credit with your collaborators.
  - Seek collaborators.
  - Start reading groups and invite colleagues. May find future collaborators.
- External recognition may come before internal recognition
  - Make sure management hears about it!

Getting Known Outside the Lab

Write workshop papers and posters, in addition to conference and journal articles.

Talk tours

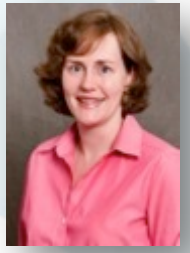
- Self-invitation (“I’ll be in the area”)

Proposal review panels, journal refereeing, conference program committees: volunteer yourself (but in moderation).

Invite others to visit and give talks.

Lessons from OUR Experience

Things I'm glad I did



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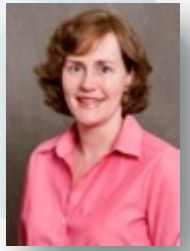
Internally:

- Worked on projects with different people
- Learned the culture
- Got mentors for specific situations
- Organized the MSR Women's group with Lucy Vanderwende, intern talk series

Externally:

- Publishing/Workshops/Visibility/Networking
- "Volunteer" for Program Committees
- SIGCHI VP for Membership
- Picked some smaller conference to "focus on"

Things I wish I had done



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Meet and greet with lots of people right after I started

A little bit more coherence/plan with projects around clear theme

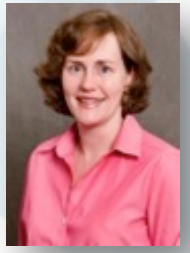
Valued my time, weighed opportunities, killed things sooner

Figured out sooner when to say “No”

- (I’m getting better at this ☺)

Aggressively avoid meetings

Things I wish I realized earlier



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The imposter syndrome never goes away

Celebrate all successes (including “no”)

When I work most effectively

What stresses me out (and coping strategies)

How to let go of micro-aggressions (or channel them for good).

Things I'm glad I did

- Be involved in collaborative (European) projects
- Attend conferences
- Give seminars in universities abroad and meet PhD students and researchers from all over the world
- Get involved in international collaborations
- Participate in the organization of workshops
- Teach

Things I wish I had done

- A postdoc abroad
- Don’t get a junior researcher position in the team where I was a PhD student

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Things I wish I realized earlier

- Learn to say NO
- Better deal with stress
- Targeting perfection is not always worth it
- Share your ideas/drafts/difficulties with your colleagues without waiting too long
- Value of mobility

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