My PhD…
What else?

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How to prepare the day after?

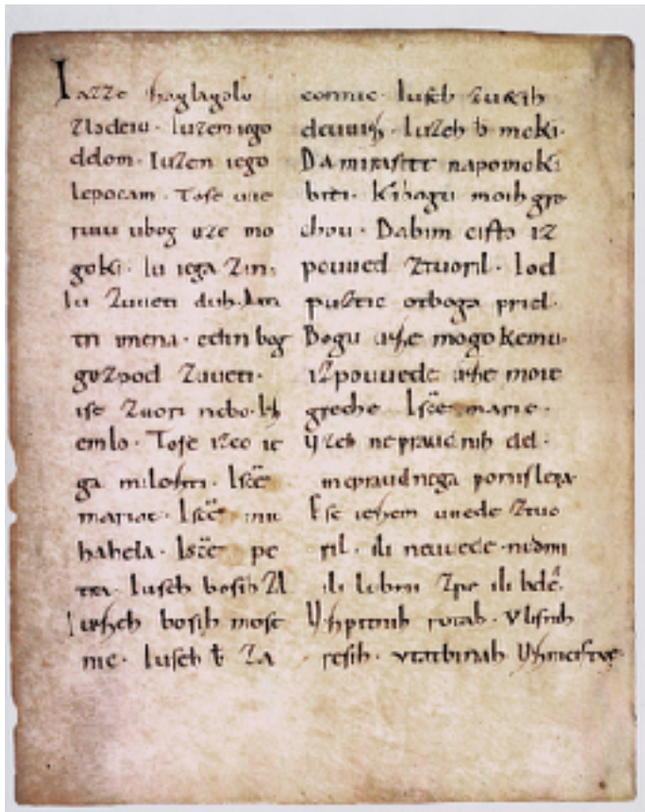
- Your PhD defense… and after
- Applying for a position
- The keys for a successful job strategy
- And now?

Your PhD defense… and after

PhD defense: Who?

- PhD registration institution
  - Not IRISA, not Inria
  - University Rennes 1, INSA Lyon, ENS Lyon, etc.
- Doctoral School
  - Organizing and monitoring your PhD work
    Regular timespan: 36 months
  - Matisse, MathStic
  - CSID: Individual PhD monitoring committee
- Research laboratory
  - IRISA, Inria
- PhD director/supervisor
- Research Team
  - ASAP, CIDRE, EMSEC, KERDATA, MYRIADS
- Funding institution
  - University Rennes 1, Inria, ENS Rennes, etc.
  - Industry-Academy CIFRE Framework

PhD defense: How?



- PhD manuscript
  - 100-150 pages
  - 3 years of work
- External reviewers: 2
  - Head of registration institution
    - Doctoral school verification
  - Reports
    - Recommendation for defense
    - One month reading allowance
- Jury: 6 members
  - One month organization and advertising allowance
- Defense
  - 45 minute talk
  - 45 minutes questions
- Private deliberation
  - Scientific validation
  - Manuscript validation
  - Defense report
- Congrats and post-defense celebration!

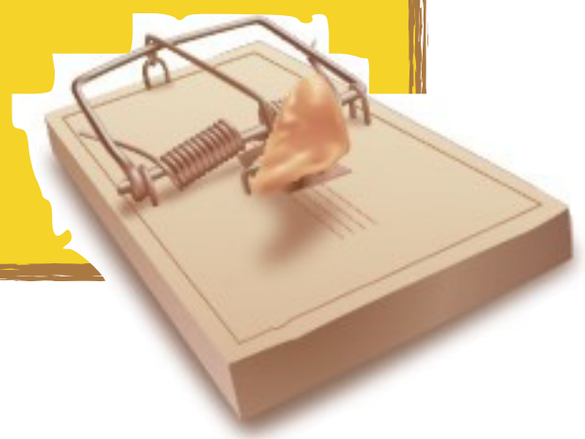
The day after: What to do?

- Overall objective: Get a permanent position
  - Academia vs. Industry
  - France vs. Europe vs. International
  - Teaching vs. Research
- Academic positions: a long process
  - Shortage of permanent positions
  - High competitive level
  - Year-based process
- In contrast, abundance of fixed/short-term positions
  - Post-Doc
    - 1-3 years
  - Fixed-term teaching position
    - In France: ATER, at most 2 years
  - Fixed-term engineering positions
    - Research engineers

Mobility
Originality

To take away

You will get exactly what you planned to get



There is no Free Lunch.

Applying for a position

French qualification

www.cpcnu.fr
cnu27.iut2.upmf-grenoble.fr

- Applying to an academic teaching position in France
  - Maître de conférences (MC, MCF)
  - Joint Research-Teaching position
  - Teaching load: 6 hours/week
- National University Council
  - Conseil national des universités (CNU)
  - Section 27: Informatics
  - 50 section members
  - Around 3500 lecturers
- Qualification meeting
  - 700 MC applications, 200 PR applications
  - 1 week work for 50 members
  - 2 reviewers per application: 2 pages of review
    Recommendation: A, B, C, D, X
  - Selection rate: 70%
- Application: Early October, on-line registration
- Defense diploma: Mid December, on-line upload

Anticipate this step carefully
Only one draw a year!

French-speaking process

Discussion time: 3 mn

Qualification application

- Résumé
- Publication list
  - Copy of main papers
- Research activity
  - Summary of scientific achievements
  - Collaborations, seminars, visits
  - International activities
- Teaching activities
  - Summary of teaching assignments
  - Personal achievements
    - Courses, exercise classes, lab classes
    - Project supervision, specific involvements
    - Specific training at Doctoral School
  - Scientific mediation, lectures, etc.
- Additional activities
  - Specific responsibilities, etc.

Question: Will you be a good candidate for a MC position?

Be specific! Only activities with indicators are considered

Recommendation letters
- *Department chair*
- *Research supervisor*
- *Visited host*

Applying to a university position

- Call for applications: February
  - One call for each position in France
  - 100+ different institutions
- Applications due: March
- Step 1: Application selection
  - 5-10 applications
- Step 2: On-site hearing
  - 10-15 minutes presentation
  - 10-15 minutes questions
- Ranking
  - 0-5 names
- Global round-based assignment algorithm
  - On each round, select or resign for each proposed position
- Final result: July

French-speaking hearing in most places

Caution: Difficult exercise
Requires an extensive training
2 weeks of preparation
for the hearing

Applying to a research position

English-speaking process

- Research-only position
  - Inria, CNRS, etc.
  - 10-15 positions each year at the national level
- No qualification needed
- Fully international competition
- Procedure
  - Step 1: Application selection
  - Step 2: On-site hearing
- Final selection
  - Major role of the hiring institution

Applying to an industry position

- Permanent vs. fixed-term
- Completely dependent on the context
  - Country, region
  - Large group vs. startup
  - International competition vs. local visibility
  - Major variable: application pressure
    - Big Data software engineer, statistics data scientist, etc.
- Preliminary choice
  - Mobility
  - Salary
  - Adaptability

Make it very clear right from the beginning

Applying to a post-doc position

- Very large number of positions
  - No integrated framework
  - Little official information
  - Mostly through personal relationship
    PhD advisor, PhD fellows
  - In most cases, low application pressure

Be professional!

- Personal contact definitely needed
  - On-site or remote interview
  - Preparation: read some papers to comment them
  - Salary negotiation
    Rather limited in France, but qualification level adjustable
- Major difficulty: Run a professional negotiation process
  - Little training in French PhD curriculum
  - Applicant reliability vs. recruiter reliability

A real example: Argonne Natl. Lab, USA

- Mid August: First contact
  - Extended abstract, CV, publication list
- August 24: Skype interview, 30 minutes, 3 people
  - Project presentation
  - Candidate presentation
  - Questions of recruiters to candidate
  - Questions of candidate to recruiters
- 2-3 weeks after: Confirmation email
  - Official application on ANL Web site
  - Cover letter, 3 references, administrative information
- November 8: On-site interview at ANL

On-site interview at ANL

- 2 weeks of preparation for 1 (full) day at ANL
  - Check CV of all people of the committee, read their papers
  - Intensive rehearsal program with fellows and colleagues
  - All expenses covered
- Part 1: Seminar
  - 45 minutes + 15 minutes questions
  - 50 people in the room
- Part 2: Lunch with the team
  - Intensive question session
- Part 3: Meetings
  - 10 1-to-1 meetings, perfectly tight schedule
  - 9 researchers + 1 HR
  - 30 minutes each in the office of the recruiter

To take away

Disregard local applications

Make yourself adaptable

Step out of the pack

Know your recruiters

The keys for a successful job strategy

The golden rule

You will be hired because you fit best your recruiter's needs

Earning a good PhD is not the question

Key 1: Network

- Know your community
  - Resource persons
  - Decision makers
  - Helpers
  - Success stories and failure stories
- Get known by your community
  - What you have done
  - What you can do
  - What you want to do
- Weave the network methodically
  - Scientific visits
  - Seminars
  - Coffee time
  - Conferences, workshops

Attending a seminar is an investment

Make the most of the conferences

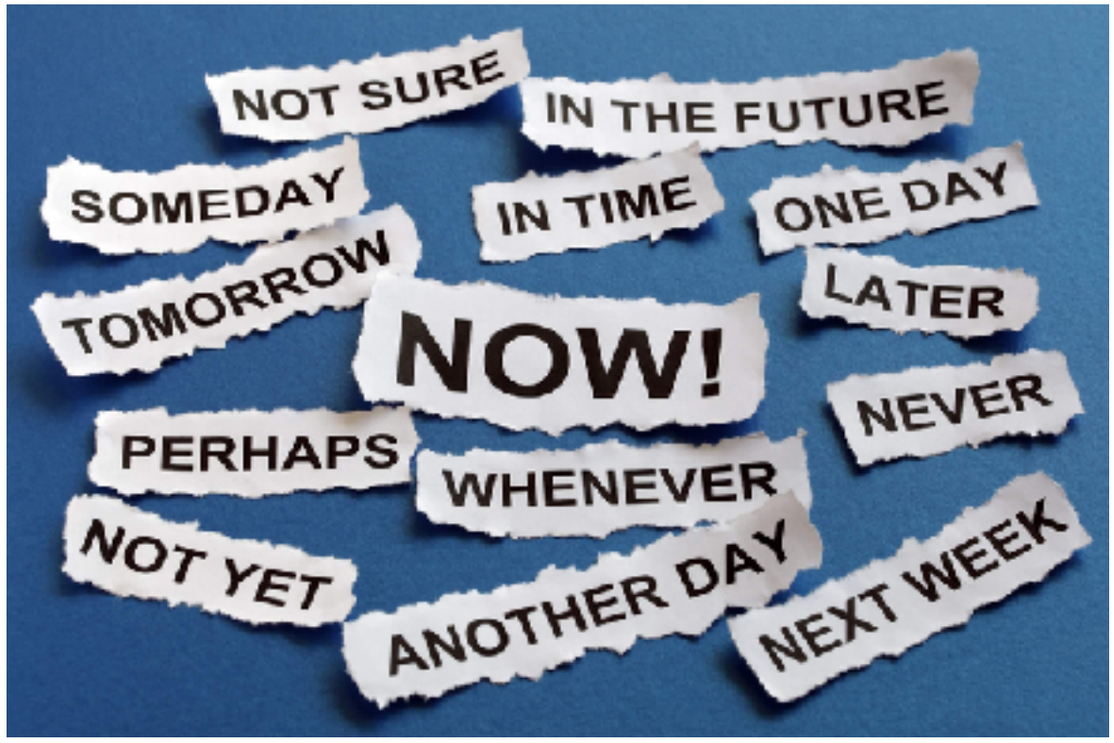
Key 2: Understand

- Learn the needs of the recruiters
  - Research
  - Teaching
  - Additional skills
- Read, read, read
  - Your recruiter expects you know everything on his/her context
- Listen, listen, listen
  - Take time to interview colleagues and fellows about their applications
  - Not only science, but also scientific strategy

Reading is an investment

Increase your coffee budget

Key 3: Anticipate



- Applying to a position is a one-year task
  - Searching for proposals
  - Taking contact, getting information
  - Meeting people, understanding their needs
  - Building up your application
- PhD is paradise (even though you do not know!)
  - Only one thing to do
  - 3-year security
  - Personal coach just for you 24/7
- After your defense, life starts for real (and it goes too fast)
  - Short-term positions
  - New context, new people, new competitors
  - No time left to make complex learning
  - Skills acquired during PhD will fuel the rest of your scientific life

Key 4: Publish

- Publications are the major factor in application evaluation
  - Not teaching, not code writing, not Web site managing
- Not all publications are equal
  - Number of authors, order of authors
  - Publication venue, specific awards
- Refine your publication strategy explicit
  - Avoid incremental papers
  - Reject any temptation for double submission
  - Get a precise vision of the quality of your work
  - Build your network within a few conferences
  - Make sure to have one journal paper
- Get the most of the reviews
  - Study the reviews with your advisor
  - Take them seriously
  - Your papers must be perfect

Publishing unnecessary papers is as damageable as not publishing at all

Write now
Write again
Write better

Key 5: Get the most of your advisor

- You adviser is paid to advise you
  - Availability
  - Quality of attention
  - Adequacy of strategy
- You are responsible to solicit him/her
  - Plan regular meetings
  - Prepare to make sure to be as efficient as possible
  - Take notes, manage archives, gather all possible material
- You are responsible to anticipate
  - Technical questions
  - Strategic discussions
  - Paper planning

Your submission must be ready 24 hours before the deadline

To take away

Your career will be just as successful as your PhD

Manage your PhD as you will manage your career

And now?