Financing Science, Evaluation of Institutions, Career of Individuals

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INVESTMENTS IN EDUCATION DEVELOPMENT

Course agenda

Requirements to pass

- Present a paper review, we'll announce later
- Submit the experiment report, Petr Holub will explain in his talk
- Up to one unjustified absence

An absence is considered justified if you're missing, e.g., due to a conference, some reasonable MU-related event, or illness. Should the illness span over two sessions, please provide a proof, a doctor's report for instance.

Course agenda

Plan

- LM, AN: Motivation to Study ;-) and Official Stuff
- Financing Science, Evaluation of Institutions, Career of Individuals
- IF, h-index, Electronic Information Sources
- Publishing Procedure in and Presentation at Conferences
- Publishing Procedure in Journals, Examples of Reviews
- PH: Doing Experiments
- Writing a Scientific Article I.
- Writing a Scientific Article II.
- PH: Feedback on Homeworks
- Business Trips and Procedures
- DS: Managing Undergraduate Students and Other Remarks
- Student Presentations

Not neccesarily in this order...

Financing Science

- Money for organizations (="institucionální podpora")
 - Not meant for teaching students but for doing science
 - Government funding, across all scientific fields
 - Recipients: universities, research institutes, etc
- Grants (="účelová podpora")
 - To support smaller working groups to meet their specific goals
 - Recipients: research groups, individuals, e.g., post-docs
- Industry
 - Private company decides whom to give money for what benefit
 - Recipients: organizations or individuals

Financing Science

- Government provides the greatest deal of money
- Most of it goes directly to organizations, less via grant agencies
- Grant agencies govern annual competitions for money
- http://www.vyzkum.cz/FrontClanek.aspx?idsekce=609
- Problems with direct financing:
 - Need for a fair share of the budget
 - Attempt to evaluate organizations and give money accordingly
 - Research in different fields costs differently
 - Rules change from year to year

Evaluating Science

- Government passes money directly to organization as a whole
- Organization needs to decide how to pass money further into its subunits
- Often, the evaluation results are re-used
- Evaluation is mainly focused on publication activity
- How institutions are evaluated, and results:
- http://www.vyzkum.cz/FrontClanek.aspx?idsekce=18748
- Organizations must manage reports of their results (IS, RIV)
- Organizations tend to optimize
- In ČR: Evaluation happens every year based on RIV

Financing Science: Grants

- Fixed budget given for fixed period of time, for specified research tasks
- Researchers specify that in grant applications, and compete for money
- With grant you can improve your income, buy stuff you need, improve working environment, etc
- However, the acceptance ratio of grant proposals is usually low (<25%)
- Grants are often granted to individuals (SomoPro, ERC grants) or teams (GACR)
- https://www.fi.muni.cz/research/index.xhtml.cs
- European Union grants, EU H2020 (http://www.h2020.cz/), FP7 a VaVpl atd.

Financing Science: Grants

- With grant you are often obliged for certain acts, e.g.:
 - Propagation of the grant agency
 - Promotion of the results, availability of the results (SW licenses)
 - Sustainability of the granted processed (e.g., DUVOD)
 - Lots of administration and "proofs" (e.g., photos)

Financing Science: Grants

- Applications should...
 - be submitted right on time (deadlines),
 - be submitted to appropriate agency and panel,
 - be formally okay (and good looking),
 - be clearly formulated in terms of goals and actions to take,
 - · contain reasonably ambitious goals,
 - take into account duties from the grant agency (e.g., promotion costs).
- Experience (and little bit of luck) is a big advantage
- Knowledge of evaluation processes is also a big advantage

Scientific Career

- It varies country from country, especially at later stages
- More or less standard progress is:
 - 3–6 years PhD student
 - cca 28 years old
 - 3–6 years Post-Doc position
 - cca 35 years old
 - up to 8 years on tenure track / assistant professor
 - cca 40 years old
 - habilitation → associate professor
 - after Post-Doc: look for your own lab
 - some time later: become a full professor