Lea el código QR para registrarse

Martes, Septiembre 11, 2018

Dr Francisco Cantu-Ortiz

fcantu@itesm.mx, http://semtech.mty.itesm.mx/fcantu/

Agenda – Parte 1

1: Panorama de la Investigación en México

2: Entendiendo el Formato IMRAD

3: Consejos para la Escritura Académica

4: Métodos Cualitativos en la Investigación

5: Selección de Revistas – Consejos y Retos

6: Aprendiendo del Rechazo en Revistas

enago
Author First, Quality First

Agenda – Parte 2

1: Publicaciones en Conferencias

2: Un Ecosistema de Investigación e Innovación

3: Administración de la Investigación

4: Fuentes de Financiamiento

5: Administración Proyectos de Investigación

6: Administración del Posicionamiento y Prestigio

enago
Author First, Quality First

Latin America

- 19.2 millones de km^2 (13%)
- 639 millones de personas (8.4%)
- 3.5% del total de publicaciones
- 21 países que hablan Español, Portugués, o Francés (Inglés, Holandés)

enago
Author First, Quality First

Investigación en Mexico (1/4)

United Mexican States

Estados Unidos Mexicanos (Spanish)

Flag

Coat of arms

- ~1.9 millones km^2 (5.9% of LA)
- ~127 millones habit. (19% of LA)
- 17% of LA publicaciones*

* Datos de SCImago de 1996 a 2017

enago
Author First, Quality First

Producción Científica en México

Scholarly Output 💲
108,593 ▲

Authors
128,282 ▲

🗐 View list of publications

Citation Count 💲
532,576

Citations per Publication 💲
4.9

Field-Weighted Citation Impact 💲
0.88

Impacto de Citación Ponderado por Disciplina

Producción Científica Mundial

14,206,189 ▲
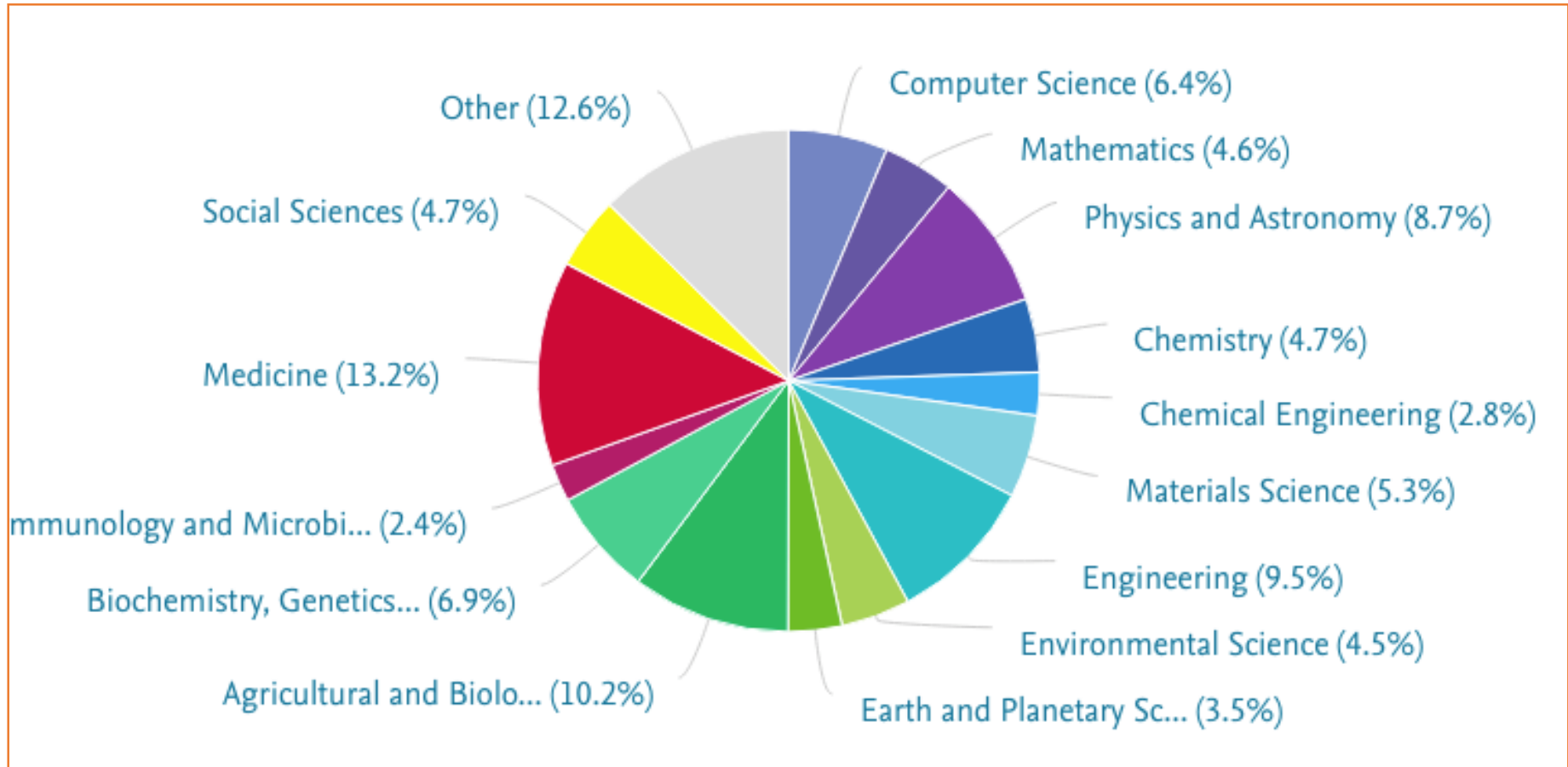
13,199,734 ▲

Field-Weighted Citation Impact
1.00

Citation Count
89,458,047

Citations per Publication
6.3

enago
Author First, Quality First

academy

Disciplinas en las que se publica en México

Other (12.6%)
Computer Science (6.4%)
Mathematics (4.6%)
Physics and Astronomy (8.7%)
Social Sciences (4.7%)
Chemistry (4.7%)
Medicine (13.2%)
Chemical Engineering (2.8%)
Materials Science (5.3%)
mmunology and Microbi... (2.4%)
Engineering (9.5%)
Biochemistry, Genetics... (6.9%)
Environmental Science (4.5%)
Agricultural and Biolo... (10.2%)
Earth and Planetary Sc... (3.5%)

enago
Author First, Quality First

PESO POWER

Mexico is trying to reach a goal of spending 1% of gross domestic product (GDP) on science and technology (S&T).
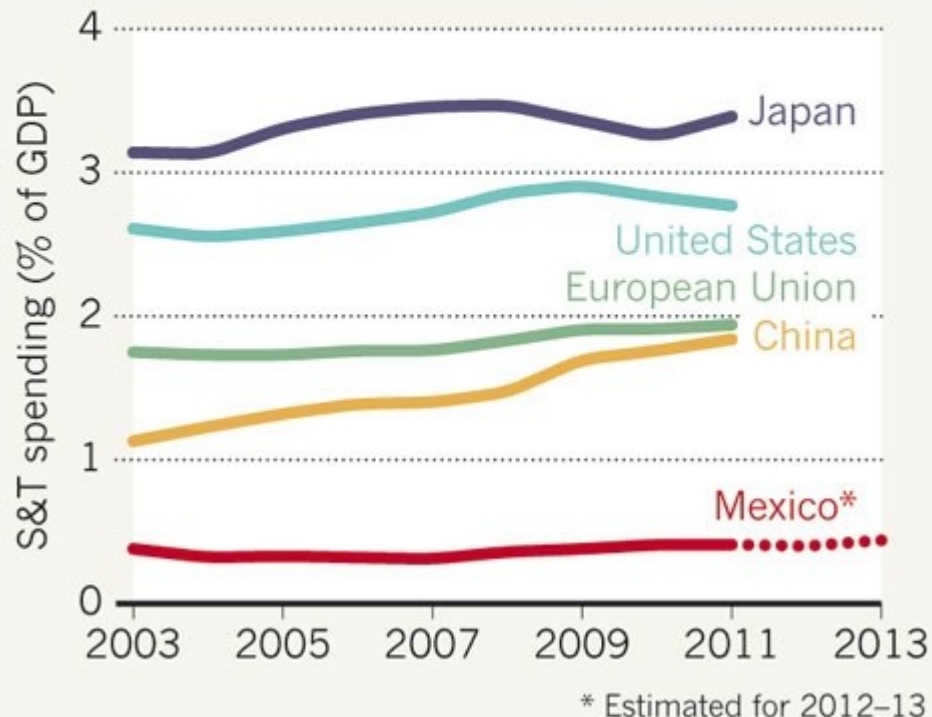
El número de investigadores que pertenecen al SNI es reducido (25,072 en 2016) comparado con la población de México (cerca de 128 millones). Hay 936 SNIs en el Estado de Puebla (3.7%).

En el Ranking QS de universidades Latinoamericanas hay únicamente tres universidades Mexicanas en las primeras 30: UNAM (4th), ITESM (5th), e IPN (30th). La BUAP está en la posición 88th.

Figure 1: Comparación del financiamiento en México con respecto a Japón, EEUU, UE, y China.

Benemerita Universidad Autonoma de Puebla

Calle 4 Sur, 104, Puebla
PUE, Mexico
Affiliation ID: 60024830
Other name formats: (Benemérita Universidad Autónoma De Puebla) (Universidad Autónoma De Puebla)
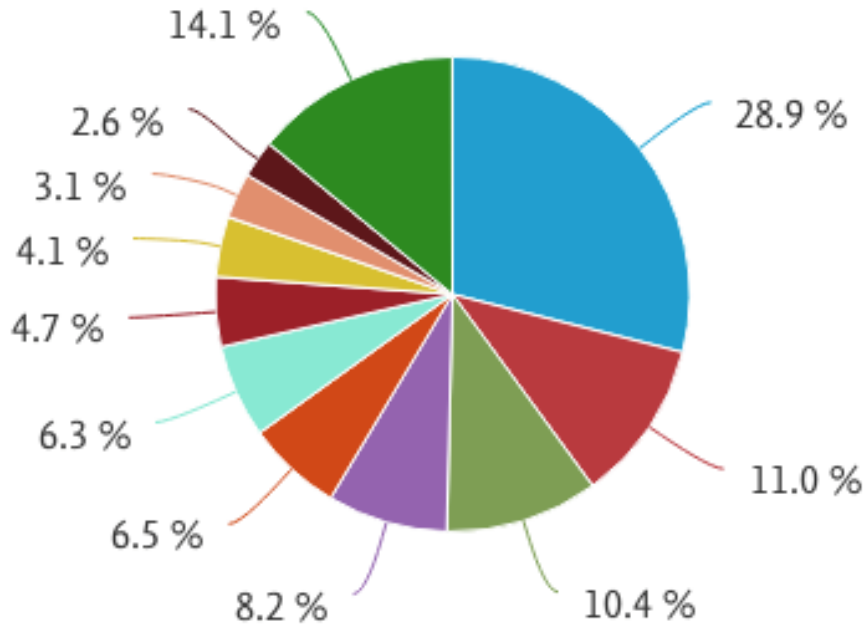(Benemerita Universidad Autonoma De Puebla) (Buap) (Univ. Autónoma De Puebla)

Documents, affiliation only
9,323

Authors
3,937

BUAP: 2013-2017

Pie chart percentages:
- 28.9 %
- 14.1 %
- 2.6 %
- 3.1 %
- 4.1 %
- 4.7 %
- 6.3 %
- 6.5 %
- 8.2 %
- 10.4 %
- 11.0 %

Legend:
- Physics and Astronomy
- Materials Science
- Engineering
- Chemistry
- Computer Science
- Mathematics
- Biochemistry, Genetics and Molecular Biology
- Medicine
- Agricultural and Biological Sciences
- Social Sciences
- Other

Ranking de la BUAP

México:
7th* en QS
6th en Webometrics

Latin America:
88th en QS
44 en Webometrics

World:
801-1000 en QS
1155 en Webometrics

enago
Author First, Quality First

Conference Publications

:enago
Author First, Quality First

A strategy for transfering expert systems technology to industry

Francisco J. Cantu-Ortiz

Proceedings of the

IEEE Conference on

Managing Expert System Programs and Projects

September 10-12, 1990
Bethesda, MD

Editors:

Jay Liebowitz
Jerald Feinstein
Randall Shumaker

Sponsored by
IEEE Computer Society
Technical Committee on
Expert Systems Applications

Co-Sponsored by
EXSYS Corporation
Instant Recall, Inc.
Interactive Communications, Inc.
International Association of
Knowledge Engineers (IAKE)
JACOR
OXKO Corporation
PC AI Magazine

IEEE Computer Society Press   Institute of Electrical and Electronics Engineers, Inc.

Abstract:

A strategy is presented for transferring expert system technology from university to industry. This strategy is based on five years of experience in developing expert and knowledge-based systems for academic and industrial applications in Mexico. The strategy includes KBS (knowledge-based system) technology assimilation, applied research and development with graduate students in computer science and artificial intelligence, an annual program of seminars on expert systems, an annual international symposium on artificial intelligence applications, research agreements with companies to develop expert system prototypes in manufacturing, including the training of knowledge engineers from the sponsoring companies, and the formation of the Center for Artificial Intelligence to do human resources education, applied research, and technological development. Lessons learned in selling expert systems, problem domain selection, cost/benefit analysis, management of expert systems projects, and expert system tool selection are mentioned.

6 pages

Citado por 8

1990   1991   1992   1993   1994

The Research Funnel

Broad research area

Literature review

Gap in research

Your study

Research questions

Research aims

enago
Author First, Quality First

The Wine Glass Model

Introduction

central
report section

Methods

Results

Discussion/
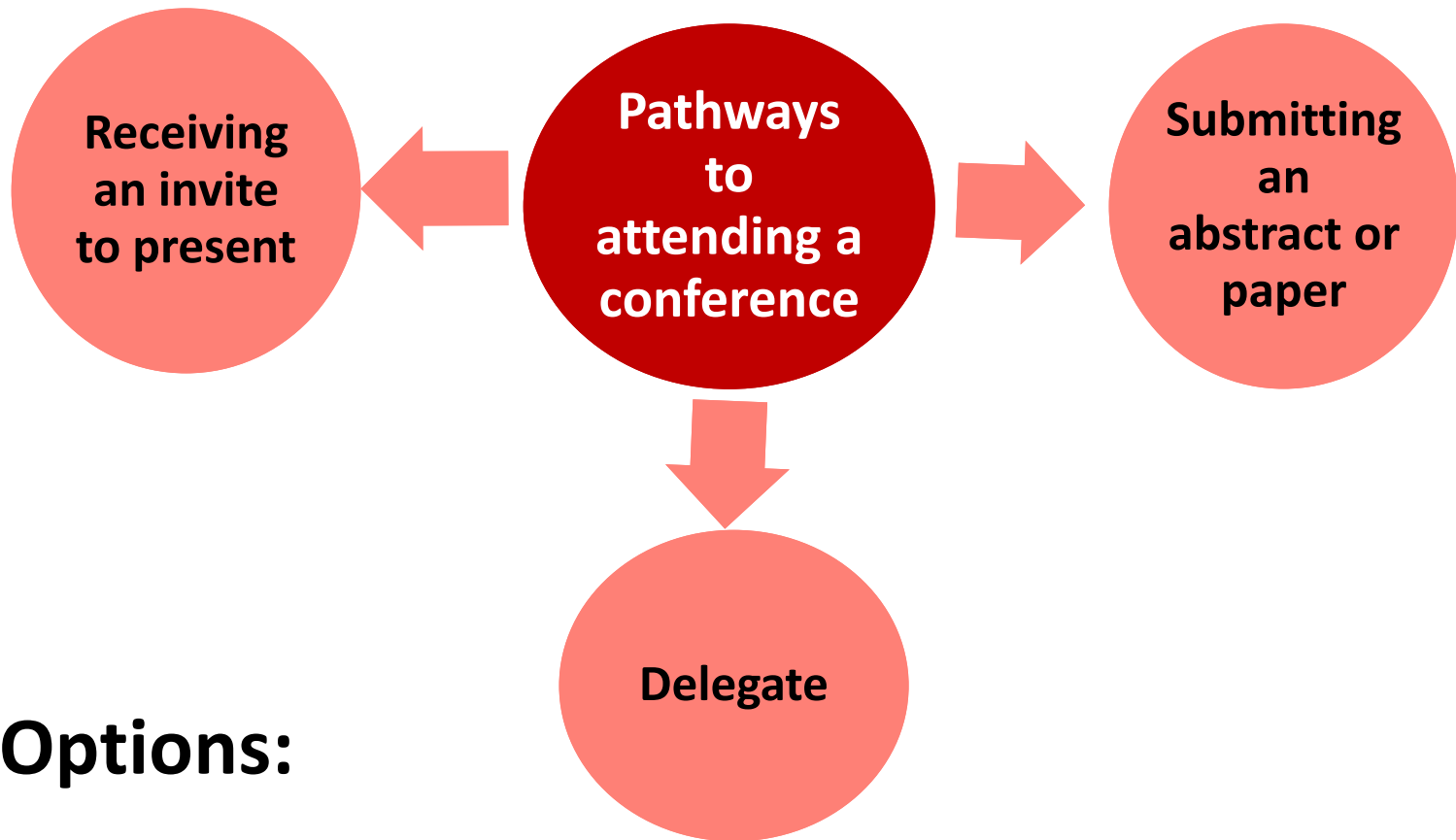Conclusion

*Fuente: IMRAD en Wikipedia

Why Attend a Conference?

✓ Learn about new developments in your field
✓ Present your findings (published/under consideration)
✓ Get feedback on your research
✓ Network and explore collaboration opportunities
✓ For PhD students, find labs/researchers they would like to work with

9:enago
Author First, Quality First

Pathways to attending a conference

Receiving an invite to present

Submitting an abstract or paper

Delegate

Options:

- Experts and senior academics might receive invitations
- Conference Call for Papers and paper submission
- Attendee

Before deciding to attend the conference, consider the following points:

- ✓ Scope of conference
- ✓ Keynote speakers
- ✓ Networking opportunities
- ✓ Timeline
- ✓ Travel grants
- ✓ Cost
- ✓ Location
- ✓ Who else is going? (friends/colleagues/contacts)
- ✓ Number of sessions
- ✓ Format

- Beware of predatory conferences

enago
Author First, Quality First

Selecting the Right Opportunity

enago
Author First, Quality First

National or International?

National Conferences

- Limited audience
- Higher abstract acceptance rates
- Annually held
- Low cost

International Conferences

- Wider audience
- Lower abstract acceptance rates
- One-off, annual, or biennial
- Expensive

enago
Author First, Quality First

Preparing for a Conference

Submitting a abstract

PUBLICATIONS AND DATA

- ✓ Abstracts for conferences are generally published in the conference proceedings
- ✓ Follow the instructions carefully (e.g., regarding length, structure, and deadline)
- ✓ Don't include references, figures, or tables unless instructed to
- ✓ Be succinct and clear (250–500 words)
- ✓ Adhere to deadlines

enago
Author First, Quality First

Submitting a full-text paper (with abstract)

A Scientometric and Ranking Performance Analysis of International Research University Network members and World-Class Universities: Are they the same?

Francisco J. Cantu-Ortiz, James Fangmeyer Jr., Nathalie Galeano
Tecnológico de Monterrey

Abstract

In this paper we present an overview of international research university networks and a scientometric and ranking performance analysis of universities that are members of those networks. We match university networks with top 200 universities from QS, THE, and ARWU tables, which we regard in this study as world-class universities (WCU), and identify similarities and differences. We do this by way of studying the main international research university networks in terms of their scientometric and ranking performance. We discuss the motivation, costs, and benefits of universities to join such networks and do a prospective analysis of the role research university networks and WCUs will play in the future in spreading out global common goods from universities into knowledge economies and an unprecedented renewal of truth, peace, and spiritual values. In addressing these issues, we hope to shed light on the connection between world-class universities and international research university networks and the influence they will have in new generations.

Introduction

University networks have existed for more than one hundred years. The motivation for creating these networks stems from the need universities face to collaborate among themselves in higher education themes in order to seek prestige and to face global challenges like global climate change, refugee migration trends, energy sources, culture dialogue and understanding, and related issues. To achieve these goals and help each other in this regard, network members develop joint research projects and sharing research infrastructure and resources, exchange faculty and students in research, taught programs, and academic mobility, offer joint or double degrees, and share experience in university management. Sometimes networks are established and supported by organizations such as the United Nations, the World Bank, the OECD, and other foundations. We put university networks under the microscope by asking: *What may be the relationship between members of international research networks and the top 200 world-class universities?* We focus on this question that we deem salient to those setting the future direction of higher education at the institutional and inter-institutional level.

1 of 9 pages

- ✓ Abstracts and full-text papers for conferences are sometimes published in the conference proceedings
- ✓ Follow the instructions carefully (e.g., regarding length, structure, and deadline)
- ✓ May follow the IMRaD format or related ones
- ✓ Adhere to deadlines (preprint, postprint, presentation, publication)

I'm not interested in what the paper is about, Dr Jones, I just want you to put me on the authors' list...

Requisites for Attendees

Preparation is the key

Review the conference programme beforehand

Learn the layout of the conference venue

Email and organise a meeting with people you have identified through the conference proceedings

Perhaps bring copies of your curriculum vitae (CV) or resume

Bring copies of your business card

Be ready to network at social events

Dress professionally

enago
Author First, Quality First

Poster vs Oral Presentations

enago
Author First, Quality First

Poster vs Oral Presentations

Some conferences may allow attendees to select between a poster or oral presentation when submitting an abstract.

Oral presentations

- Might be reserved for topics that appeal more to the intended audience
- Suited to topics that can explained within the time limit of the presentation
- Require sufficient amount of data (complete story)
- Provide better visibility

Posters

- Posters are allotted to remaining abstracts that match the scope of the meeting
- Better suited to technical topics
- Can be made with limited/preliminary data
- Provide limited visibility
- Opportunities for in-depth discussions and networking

Planning a Poster

✓ Adhere to specific conference requirements (size & orientation)

✓ Plan the content and layout of the poster

✓ Maintain a good image to text ratio (1:1-1:2)

✓ Fonts should be legible at a distance (title 85 pt, body 24-34 pt)

✓ Keep some white space (avoid dark backgrounds)

✓ Use symbols to help readers navigate

✓ Get feed back proofread before printing

✓ Include your name/coworker's name/contact details and university's name/logo (consider including a QR code)

E-poster

- Dynamic multimedia form of the paper poster

- Run automatically, but viewers can use a mouse to zoom into view figures

Flash poster presentations

- Poster presenters give brief oral presentations (~3 min)

- Helps to interest attendees in visiting their posters

Planning an Oral Presentation

- ✓ Check the instructions carefully
- ✓ Include much less detail than for a journal article
    - • Plan 2-3 min/slide
    - • Talk about all points on a slide
- ✓ Present the work as a story
- ✓ Use a straightforward structure
- ✓ Consider the professional background of the audience
- ✓ Keep it short

enago
Author First, Quality First

Types of Presentations

Oral presentation

- Delivered by individuals who submitted abstracts or were invited by the conference committee
- Contributed talks are shorter (10–12 min up to 20+5 min) than invited talks (30–45 min)

Workshop presentation

- Organized to teach techniques and practical skills to the attendees
- Often before or after a conference
- Generally longer (at least 45 min) and are more interactive
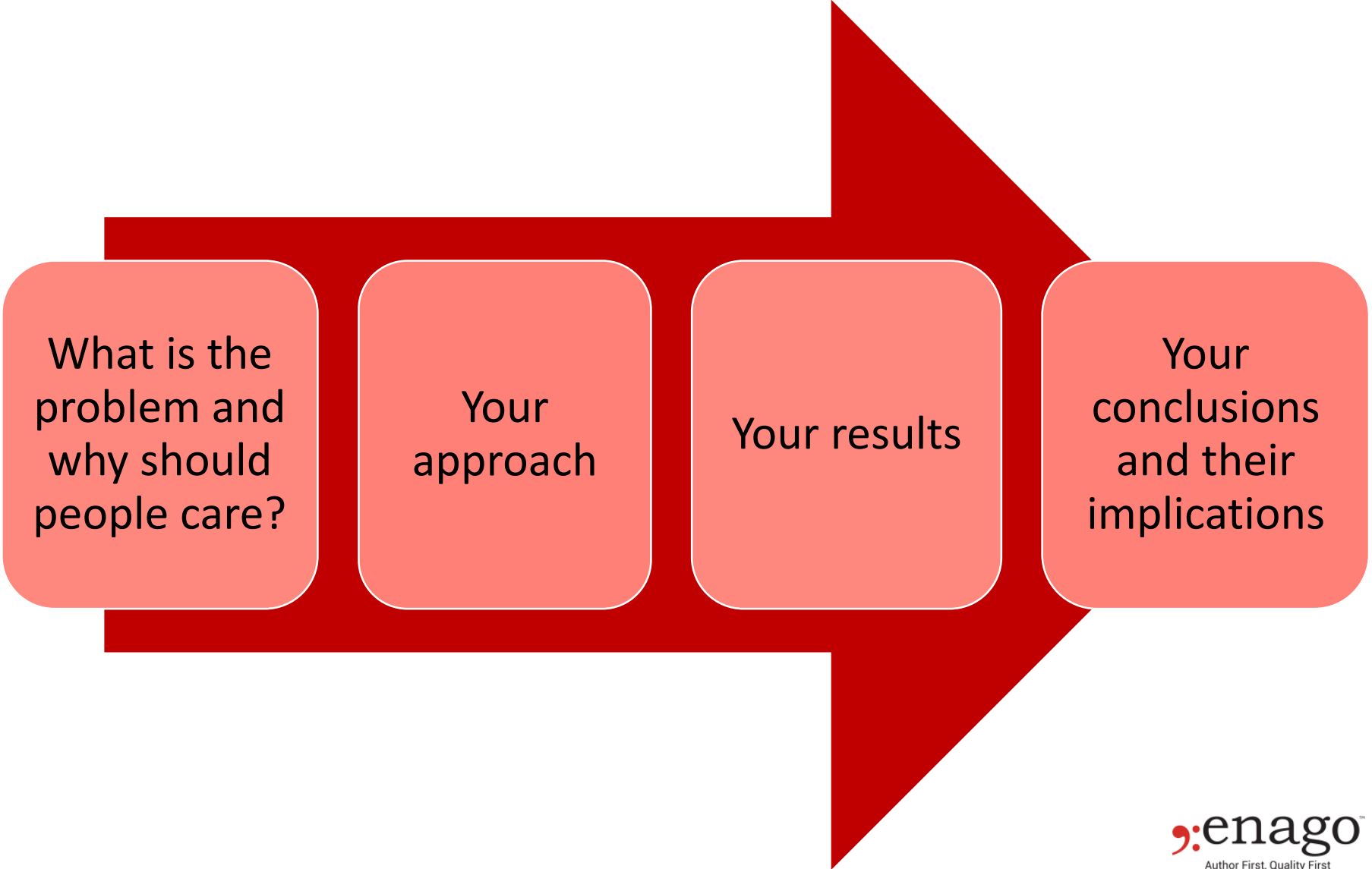
Panel presentation

- Involves a small group of people presenting differing viewpoints on a debatable topic
- Panelists are generally experts in the field

Author First, Quality First

Designing Presentations

academy

Overview

| What is the problem and why should people care? | Your approach | Your results | Your conclusions and their implications |

enago
Author First, Quality First

Short talks (10–12 minutes)

```
┌─────────────────┐      ┌─────────────────┐      ┌─────────────────┐
│  Introductory   │ ───► │  Outline of the │ ───► │   Background    │
│ page (1 slide)  │      │ talk (1 slide)  │      │                 │
└─────────────────┘      └─────────────────┘      └─────────────────┘

┌─────────────────┐      ┌─────────────────┐      ┌─────────────────┐
│   Motivation    │ ───► │    Methods      │ ───► │    Results      │
│  (1–2 slides)   │      │   (1 slide)     │      │                 │
└─────────────────┘      └─────────────────┘      └─────────────────┘

┌─────────────────┐      ┌─────────────────┐      ┌─────────────────┐
│    Summary      │ ───► │  Future work    │ ───► │  Backup slides  │
│   (1 slide)     │      │   (1 slide)     │      │  (0–3 slides)   │
└─────────────────┘      └─────────────────┘      └─────────────────┘
```

Structure of Presentations
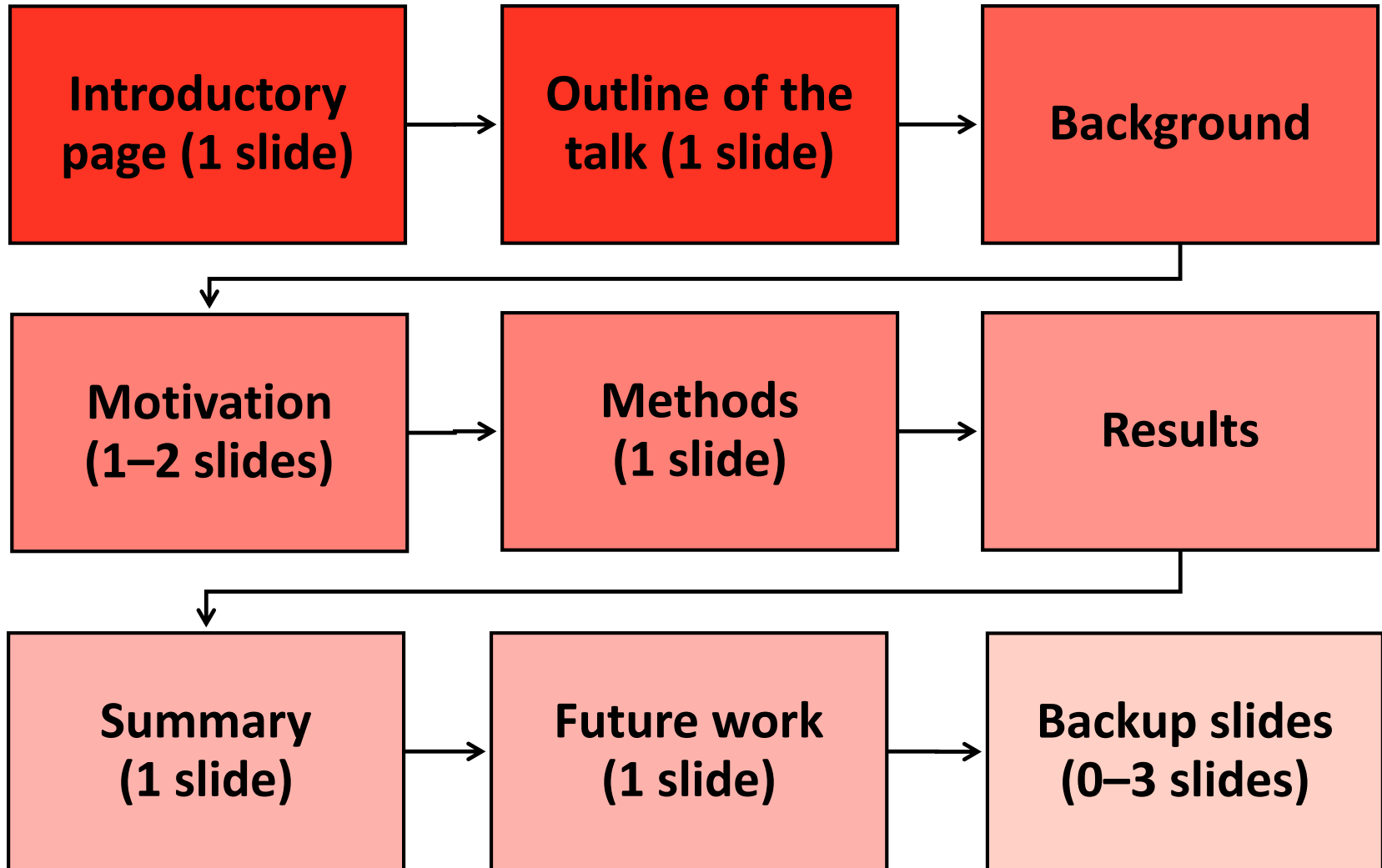
Invited talks (20–60 min)

Introduction

- Start with something to draw the attention of the audience
- Introduce the big picture, the central idea of your research and a brief overview of where it's headed
- Ensure you answer the 'who cares' question

Body

- Break you talk into smaller stories each linked to you main theme
- Highlight other peoples work that supports your research
- Support your claims by providing examples and data
- Use figures and graphs rather than tables and text

Conclusion

- Summarize the main points of your talk
- Talk about your future work
- Tell the audience to do something (call to action)

enago
Author First, Quality First

Slide Design (1/2)

- ✓ No more than 7 lines or ~50 words of text/slide
- ✓ Ensure all pictures and figures are large enough
- ✓ If you use images from another source own, include credit lines
- ✓ Use bullet points rather than paragraphs
- ✓ Avoid distracting backgrounds/templates
- ✓ Use a sans serif font such as Arial and Calibri

enago
Author First, Quality First

academy

- ✓ Try to use ~28 or 32 point type
- ✓ Keep images simple
- ✓ Beware of using unfamiliar abbreviations
- ✓ Use animations only to help present your content.
- ✓ AVOID USING CAPS! and underline effects
- ✓ Avoid using a lot of reds or greens (use a Color Contrast Ratio Analyzer)

enago
Author First, Quality First

Reds and Greens

Contrast ratio 4:1

It is difficult to read green text on a red background

This text is now more legible!

Contrast ratio 1.7:1

enago
Author First, Quality First

A Picture is Worth a Thousand Words

EARTH'S ENERGY BUDGET
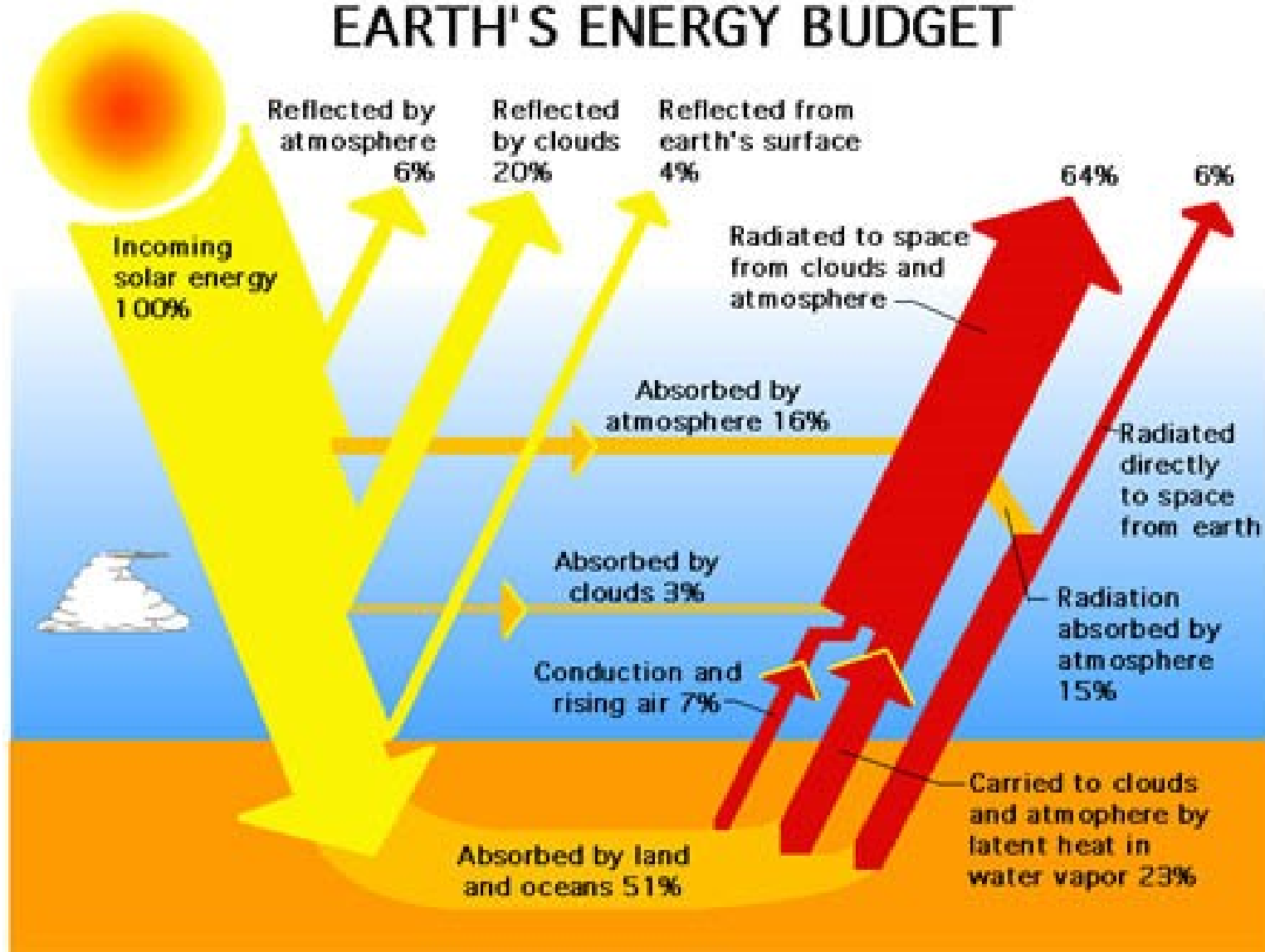
Dealing with Q&A Session

Rehearsing the Presentation (1/2)

✓ Rehearse the presentation alone a few times

✓ Rehearse the presentation for others, and have them ask you questions

✓ Try to present within less than the allotted time

✓ Include some "elastic" in case the presentation is running fast or slow

✓ Use a 'speaker ready room'
- *A room (at the conference venue) where speakers can practice their presentations*
- *Has audiovisual equipment similar to that in the conference presentation rooms*

Stage Fright

✓ Stage fright: nervousness before (and sometimes during) a presentation

✓ Some comments on stage fright

- Normal and common

- A little stage fright can help make you motivated and energetic

- Severe stage fright can prevent you from giving a good presentation

enago
Author First, Quality First

Dealing with Stage Fright

- ✓ Prepare well
- ✓ Avoid excessive food, water, and caffeine
- ✓ Exercise a little
- ✓ If you tremble, brace your arm if using a pointer
- ✓ People are attending to hear about your work, not to judge your speaking
- ✓ Practice posture

Tips for ESL Speakers

✓ Include all key terms on your slides, so people can read them.

✓ Practice pronunciation of key terms (online dictionaries with audio can help)

✓ EVERYONE has an accent of some sort (including native speakers); don't worry about it, speak clearly and loudly.

✓ If you don't understand a question,

- Ask the attendee/moderator to repeat the question
- Suggest what you think the question might be
- Ask for a one-to-one discussion after the presentation

꒝:enago
Author First, Quality First

Importance of a Q&A Session

Questions and answers are important for several reasons:

✓Get attention

✓Create interest regarding your research

✓Get feedback

✓Make points easy to remember

✓Create audience interaction

✓Promote new thoughts

enago
Author First, Quality First

3-step template

Repeat

Repeat the question

Ensure you understand the question

Ensure the audience has heard it

Ask them to reframe if it is unclear

Write it down

Respond

Answer concisely

Refer back to the question to ensure you are not digressing

If a question is irrelevant, bridge to discussing a relevant point

Review

Confirm if your answer was satisfactory

If not, suggest meeting after your talk

Thank them for the question

If You Cannot Answer…

✓ Don't fake it
✓ Some options:

- "I don't know that answer but I think that…"

- "I don't know that answer but I can find out. Perhaps we could discuss it after the talk."

Networking

- Make formal or informal connections with people who might help you to advance in your career

- Advantages
  - ✓ Potential research collaborations
  - ✓ Promotion
  - ✓ Postdoctoral opportunities
  - ✓ Opportunities to publish books/papers

academy

- ✓ Make a list of talks you want to attend and researchers you want to meet
- ✓ If possible, stay at the conference hotel
- ✓ Wear a name tag
- ✓ Network over meals and poster sessions
- ✓ Start the conversation – make small talk
- ✓ If you are shy, organize meetings with the concerned researcher prior to the conference

enago
Author First, Quality First

- ✓ Make a list of talks you want to attend and researchers you want to meet
- ✓ If possible, stay at the conference hotel
- ✓ Wear a name tag
- ✓ Network over meals and poster sessions
- ✓ Start the conversation – make small talk
- ✓ If you are shy, organize meetings with the concerned researcher prior to the conference

:enago
Author First, Quality First

Following-up

- If appropriate, contact people to follow up
- When writing about the research, consider questions that arose
- Consider adding the presentation to your CV
- Reflect on what went well and what improvements could be made
- Use the experience to make the next presentation even better
- Make use of Fig share or other platform to make your slides/poster available and citable.

enago
Author First, Quality First

Cases of Published Conference Articles

Case 1
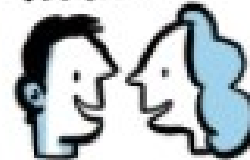
Experiments in automating hardware verification using inductive proof planning

Authors   Authors and affiliations

Francisco J. Cantu, Alan Bundy, Alan Smaill, David Basin

Abstract

We present a new approach to automating the verification of hardware designs based on planning techniques. A database of methods is developed that combines tactics, which construct proofs, using specifications of their behaviour. Given a verification problem, a planner uses the method database to build automatically a specialised tactic to solve the given problem. User interaction is limited to specifying circuits and their properties and, in some cases, suggesting lemmas. We have implemented our work in an extension of the *Clam* proof planning system. We report on this and its application to verifying a variety of combinational and synchronous sequential circuits including a parameterised multiplier design and a simple computer microprocessor.

Keywords

Theorem Prover   Hardware Design   Induction Scheme   Proof Strategy

Citado por 27
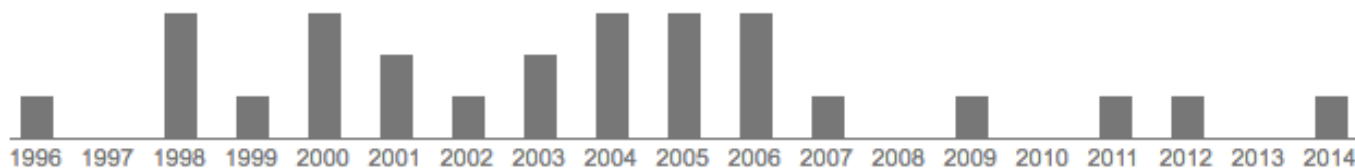
2005

A Knowledge Based Information System for Managing Research Programs and Value Creation in a University Environment

Francisco J. Cantu
Instituto Tecnologico y de Estudios Superiores de Monterrey, fcantu@itesm.mx

Hector Ceballos
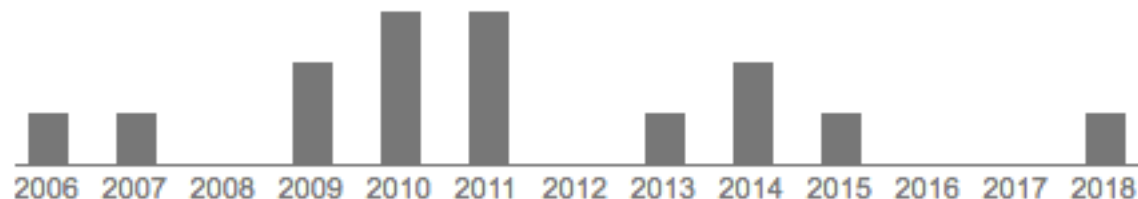*Instituto Tecnologico y de Estudios Superiores de Monterrey, ceballos@itesm.mx*

Silvia P. Mora
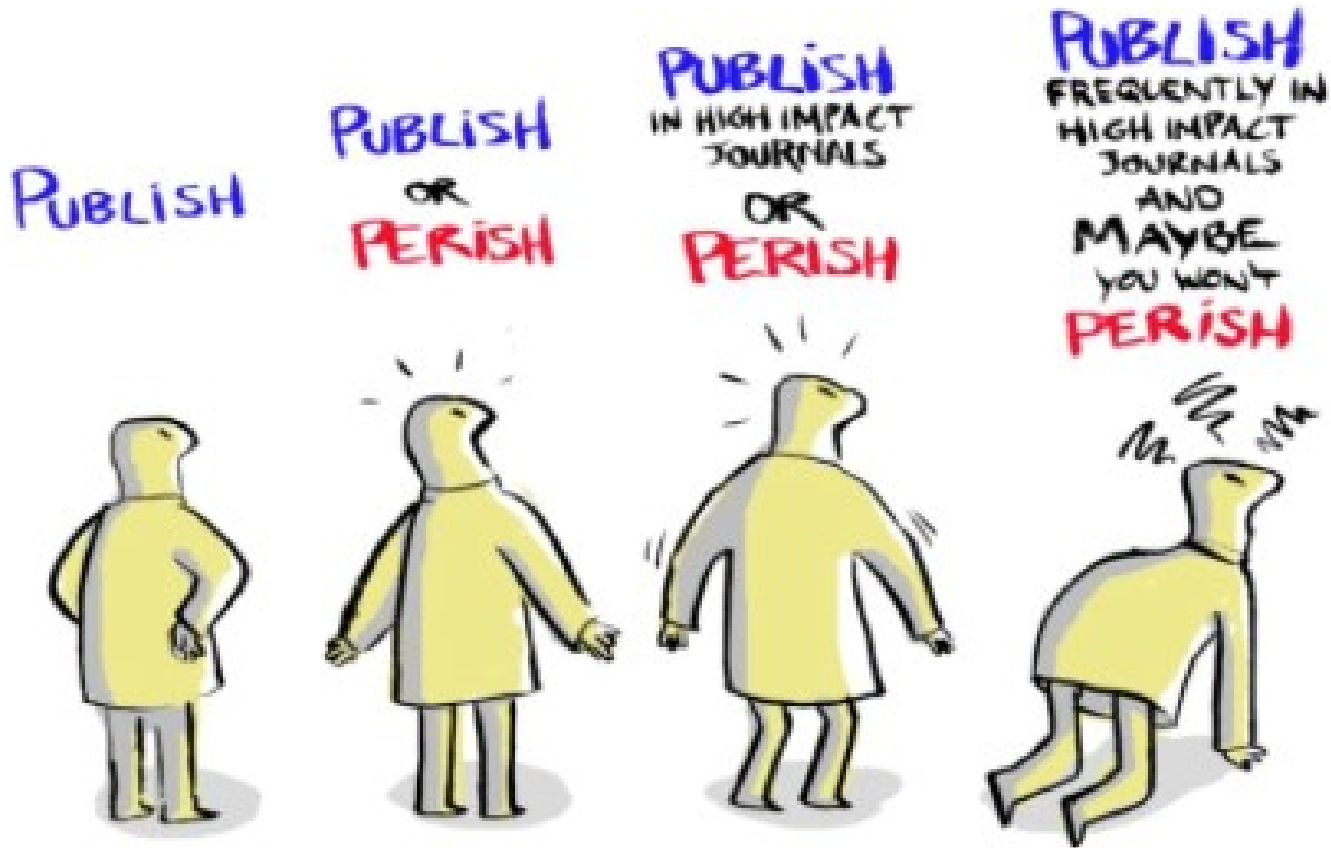*Instituto Tecnologico y de Estudios Superiores de Monterrey, smora@itesm.mx*

Miguel A. Escoffie
Instituto Tecnologico y de Estudios Superiores de Monterrey, a00787774@itesm.mx

Learning about Concerence Paper Rejection

enago
Author First, Quality First
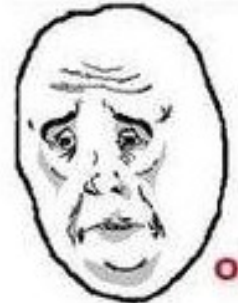
The Stages of **Revision**
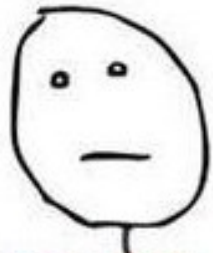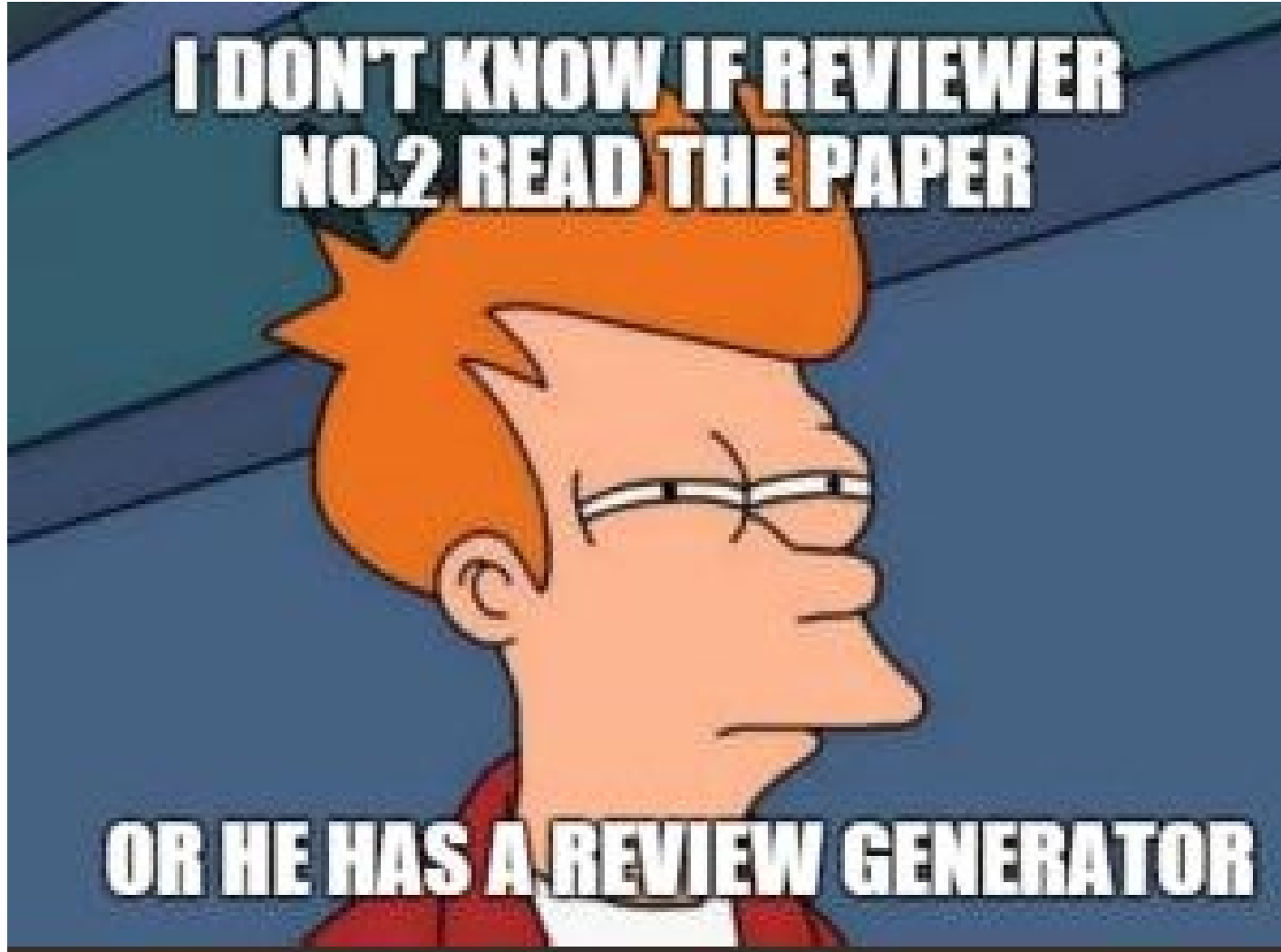

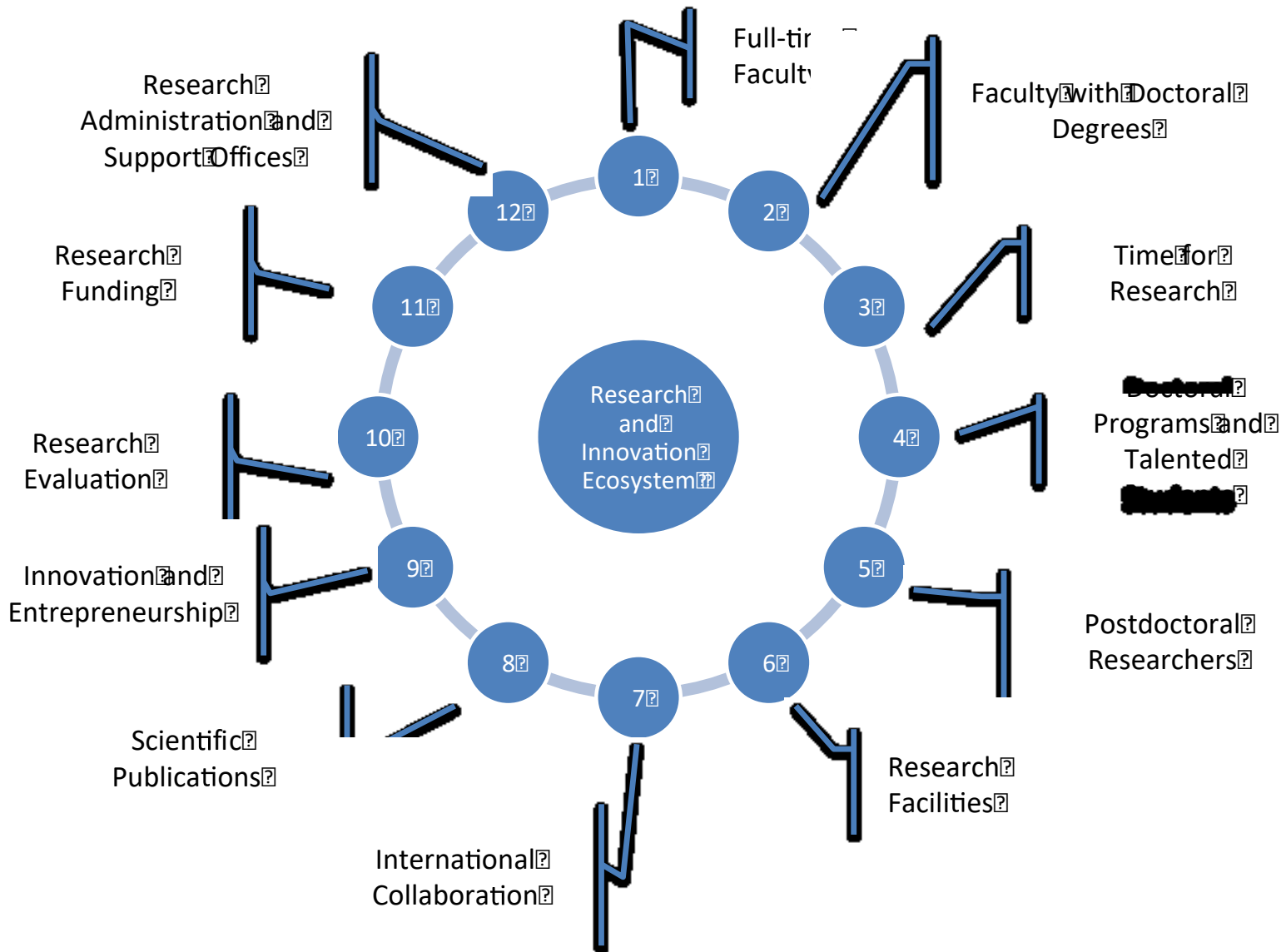| denial | anger | bargaining | depression | acceptance |
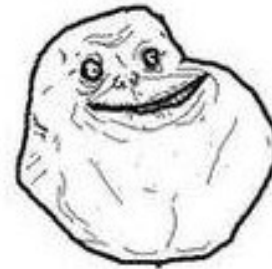
"If you can't say anything peer reviewed about your work, don't say anything at all."

A Research and Innovation Ecosystem*

*Cantú-Ortiz F. J. 2015. A research and innovation ecosystem model for private universities. In: *Private Universities in Latin America*, pp 109-130. Palgrave Macmillan, New York.

A R&I Ecosystem

Research
Administration and
Support Offices

Research
Funding

Research
Evaluation

Innovation and
Entrepreneurship

Scientific
Publications

International
Collaboration

Full-time
Faculty

Faculty with Doctoral
Degrees

Time for
Research

Doctoral
Programs and
Talented
Students

Postdoctoral
Researchers

Research
Facilities

Research
and
Innovation
Ecosystem

1 2 3 4 5 6 7 8 9 10 11 12

Best Practices for Research Administrators

Research Strategy - I

Leadership

Mission

Vision

People

Culture

Source: ITESM Strategic Plan 2020: http://sitios.itesm.mx/webtools/planestrategico2020/publico/EN/index.html

enago
Author First, Quality First

Research Strategy - II

Organization

Infrastructure

Processes

Sustainability

Support

Focusing

Source: Research that Transforms Lives: http://sitios.itesm.mx/revistatransferencia/images/Brochure_investigacion2017.pdf

enago
Author First, Quality First

Research Strategy - III

- Full Time Faculty

- Doctoral Degrees

- Time to do research – Managing teaching overload

- Career development for researchers

- Incentives

- Seed money

- Focusing

Research Strategy - IV

- Postdoctoral Researchers

- PhD Students

- MD-PhD Students

- MSc Students and Residents

- Undergraduate Research Students

- Technicians

Source: Galeano, N., Morales-Menendez, R., Cantú-Ortiz, F.J., 2012. Developing research skills in undergraduate students through an internship program in research and innovation. *International Journal of Engineering Education, 28*(1)*, p.48.*

enago
Author First, Quality First

Research Strategy - V

Developing your career as a RA

- Identify unique skills (budgeting and managing projects)

- Networking in community

- Communication skills

- Tracking international developments and challenges

- Becoming an active member of SRA, NCURA, ARMA, etc

enago
Author First, Quality First

Role of Support Offices

- Identifying and communicating with funding agencies

- Patenting and licensing services

- Facilitating access to databases of metadata and full text papers

- Writing and translation support

- Where to publish

- How to launch a start-up company

- Research intelligence, university benchmarking, research trends and hot topics

- Current research information systems (CRIS)

Source: Cantú, F. J. and Ceballos, H. G. (2010). A multiagent knowledge and information network approach for managing research assets. *Expert Systems with Applications, 37*(7), pp. 5272-5284.

Establishing Research Environment at Academic Institutes

*Cantú-Ortiz F. J. 2015. A research and innovation ecosystem model for private universities. In: *Private Universities in Latin America*, pp 109-130. Palgrave Macmillan, New York

enago
Author First, Quality First

Organization - I

- Faculties, schools, and departments

- Faculty recruitment

- Research office and policies

- Research centers and research groups

- Dealing with multidisciplinary projects and organizational matrix

Source: Ceballos, H.G., Garza, S.E., Cantú, F.J., (2018). Factors influencing the formation of intra-institutional formal research groups: group prediction from collaboration, organisational, and topical networks. *Scientometrics*, *114(*1), pp. 181-216.

Organization - II

- Graduate programs:

  - PhD (Basic Science); PhD (Clinical Science); Medical Residencies: Specialties and Sub-specialties, MD-PhD, MSc, MD

- Student recruitment

- Accreditations by CONACYT

- Scholarships by CONACYT

- International collaborations (PhD stays)

- Academic and industry internships

Source: Ceballos, H.G., Fangmeyer Jr, J., Galeano, N., Juarez, E., Cantú-Ortiz, F.J., 2017. Impelling research productivity and impact through collaboration: A scientometric case study of knowledge management. *Knowledge Management Research and Practice, 15*(3), pp. 346-355.

Organization - III

Infrastructure

- Hospitals

- Laboratories

- Bioterium

- Equipment and supplies

- Offices: open/private, proximity

- Meeting rooms

- Hazardous materials and security

- Dealing with emergencies

enago
Author First, Quality First

Organization - IV

Research Culture

- Hiring practices – identifying and retaining talent

- Financial and infrastructural support

- Job descriptions and interview processes

- Defining teaching and research responsibilities

- Provisions for financial and non-financial rewards

- Avoiding publishing or perish policies

- Encouraging and facilitating grant acquisitions

Objectives of Internal Administration

Publications - I

- Advise researchers about preparing research articles

- Educating about journal or conference papers

- Counseling researchers about establishing future collaborations

- Publication practices in STEM, Health, Arts, Humanities, and Social Sciences

- Structuring of research papers and adherence to guidelines

https://www.enago.com/academy/

enago
Author First, Quality First

Publications - II

- Identifying reference style: AMA, APA, JAMA, and MLA,…

- Tools for managing bibliographies: Mendeley, EndNote, Zotero, BibTex

- Including acknowledgements: Funding agencies, grant details

- Who should be the first author, corresponding author, co-author?

https://www.enago.com/academy/

Publications - III

- Getting ORCID, SCOPUS ID, Researcher ID

- Understanding Journal Quartiles: Q1, Q2, Q3, Q4, None

- Helping researchers overcome journal rejection

- Selecting between traditional and open access journals

- Understanding and using DOI of publications

https://www.enago.com/academy/

:enago
Author First, Quality First

Publications - IV

- Strategies for getting citations to research studies:

    research social networks (Mendeley, ResearchGate, etc)

- Bibliometric tools for tracking publications and citations:

    Scopus, WoS, Google Scholar, Redalyc

- Monitoring Impact Factor and Scientometrics: a)

    journals, b) disciplines, and c) research groups

https://www.enago.com/academy/

Publications - V

- Understanding and using h-index

- Altmetrics

- Stages of publications: pre-print, post-print, published

- Awareness of policies of editorial companies: Sherpa–Romeo standard

https://www.enago.com/academy/

Publications - VI

https://www.enago.com/academy/

SCOPUS

https://www.elsevier.com/es-mx/solutions/scopus

Web of Science

https://clarivate.com/products/web-of-science/

Google Scholar

https://scholar.google.com.mx/

Research Analytics

Boosting University Productivity and Competitiveness through Scientometrics

Edited by Francisco J. Cantú-Ortiz

CRC Press
Taylor & Francis Group
AN AUERBACH BOOK

Data Analytics Applications Series
Jay Liebowitz, Series Editor

SECTION I   SCIENTOMETRIC DATABASES

2 Web of Science: The First Citation Index for Data Analytics and Scientometrics
JOSHUA D. SCHNELL

3 A Brief History of Scopus: The World's Largest Abstract and Citation Database of Scientific Literature
MICHIEL SCHOTTEN, M'HAMED EL AISATI, WIM J. N. MEESTER, SUSANNE STEIGINGA, AND CAMERON A. ROSS

4 Google Scholar: The Big Data Bibliographic Tool
EMILIO DELGADO LÓPEZ-CÓZAR, ENRIQUE ORDUNA-MALEA, ALBERTO MARTÍN-MARTÍN, AND JUAN M. AYLLÓN

5 Institutional Repositories
MARIA-SOLEDAD RAMÍREZ-MONTOYA AND HÉCTOR G. CEBALLOS

Source: Cantu-Ortiz, F.J., 2017. *Research Analytics: Boosting University Productivity and Competitiveness Through Scientometrics*. Auerbach Publications: Boca Raton, Florida.

Acquiring and Managing Research Funding

:enago
Author First, Quality First

Research Funding - I

- Institutional seed money and matching funds

- Local and national funding

- International agencies

- Industry funding

- Databases of funding agencies

enago
Author First, Quality First

Research Funding - II

Important Agencies for Mexican Researchers

EU·MEX INNOVA
EUROPEAN UNION - MEXICO BILATERAL INNOVATION INITIATIVE

- EU-MEX INNOVA: https://www.b2match.eu/eu-mexinnova

- Mexico Innovation Fund Grants: https://drclas.harvard.edu/mexico-innovation-fund-grants

- Newton Fund: http://www.newtonfund.ac.uk/about/about-partnering-countries/Mexico/

- Strategic Alliances for Mexico (SAM): https://researchfunding.duke.edu/strategic-alliances-mexico-sam

- MIT Global Partnerships Fund

- Texas A&M University-CONACYT

- Québec – Mexico Bilateral collaborative research program

enago
Author First, Quality First

International Funding Agencies

- **DHHS**: http://www.hhs.gov/

- **NIH**: http://www.nih.gov/

- **NSF**: http://www.nsf.gov/

- **NASA**: http://www.nasa.gov/

- **Wellcome Trust**: https://wellcome.ac.uk/home

- **Gates Foundation**: https://www.gatesfoundation.org

- **SERI**: https://www.sbfi.admin.ch/sbfi/en/home.html

- **FRIDA**: https://programafrida.net/en/

enago
Author First, Quality First

International Funding Agencies
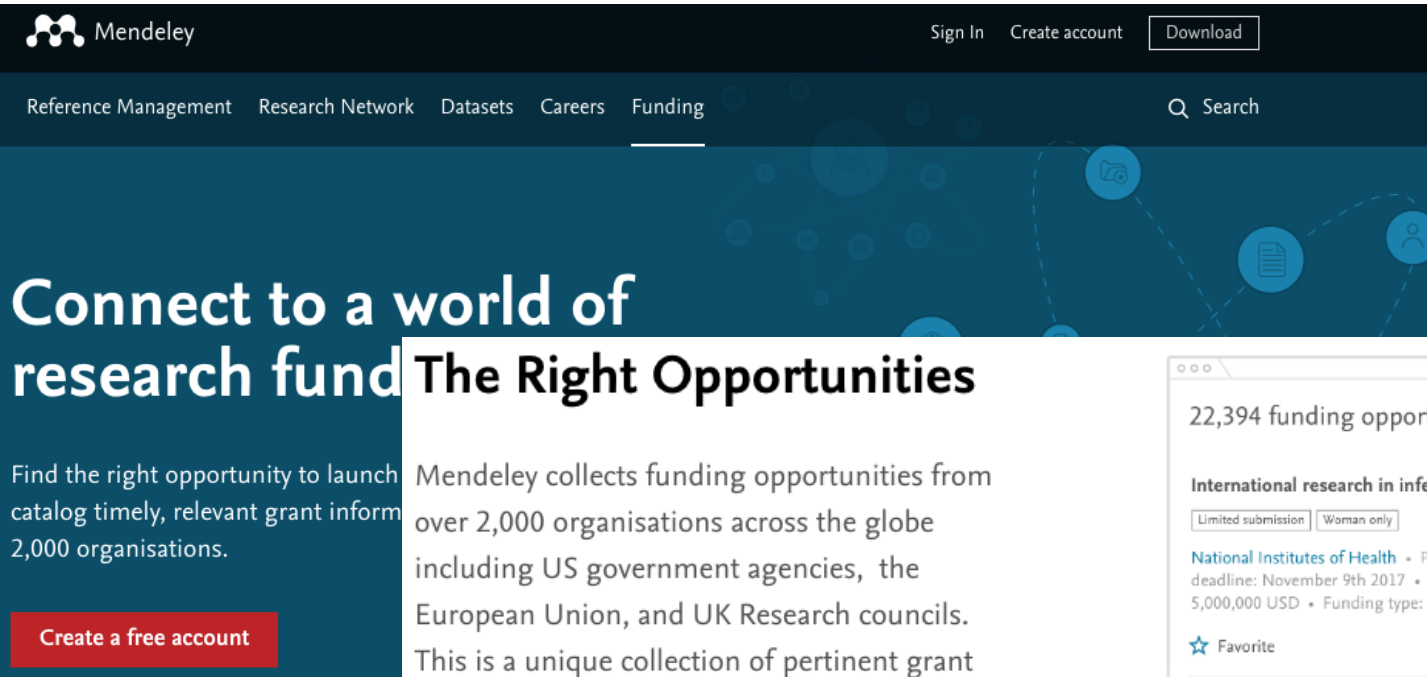
Tools for Research Funding

- Elsevier Funding Institutional: https://www.elsevier.com/solutions/funding-institutional

- Mendeley Funding: https://www.mendeley.com/funding

- Pivot: https://pivot.cos.com/

- Grants.gov: https://www.grants.gov/

- GrantSearch: http://www.grantsearch.com.au/

- GrantForward: https://www.grantforward.com/search

- ResearchResearch: https://www.researchresearch.com/

- GrantSelect: htps://www.grantselect.com/

enago
Author First, Quality First

Tools for Research Funding

Mendeley

Reference Management   Research Network   Datasets   Careers   Funding   Q Search

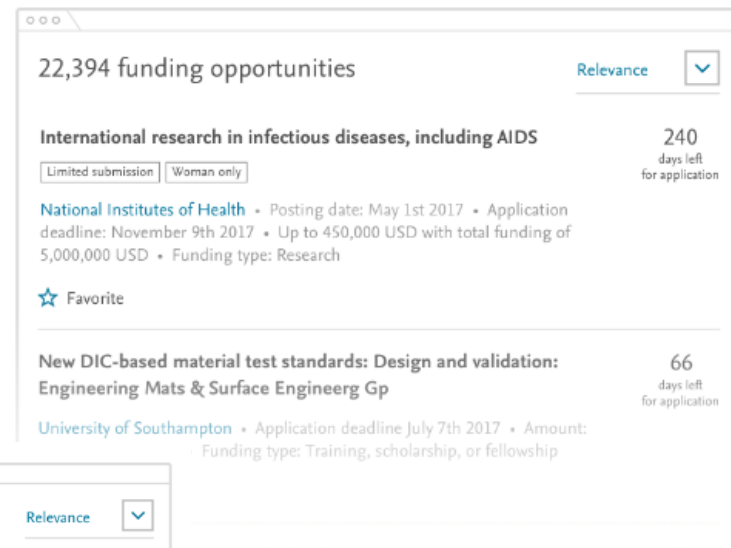## Connect to a world of research fund

Find the right opportunity to launch catalog timely, relevant grant inform 2,000 organisations.

Create a free account

The Right Opportunities

Mendeley collects funding opportunities from over 2,000 organisations across the globe including US government agencies, the European Union, and UK Research councils. This is a unique collection of pertinent grant information.

22,394 funding opportunities   Relevance ⌄

International research in infectious diseases, including AIDS   240 days left for application

Limited submission   Woman only

National Institutes of Health • Posting date: May 1st 2017 • Application deadline: November 9th 2017 • Up to 450,000 USD with total funding of 5,000,000 USD • Funding type: Research

☆ Favorite

New DIC-based material test standards: Design and validation: Engineering Mats & Surface Engineerg Gp   66 days left for application

University of Southampton • Application deadline July 7th 2017 • Amount: Funding type: Training, scholarship, or fellowship

Browse Funding Organisations

Each funding organisation has its own Mendeley Funding page; browse to see the latest opportunities they have on offer.
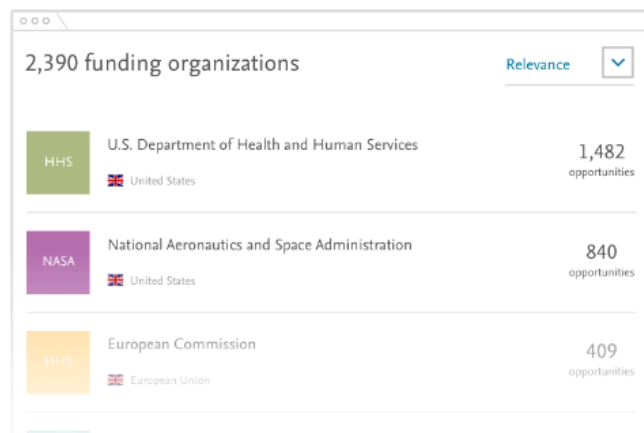
Create a free account

2,390 funding organizations   Relevance ⌄

| HHS | U.S. Department of Health and Human Services 🇬🇧 United States | 1,482 opportunities |

| NASA | National Aeronautics and Space Administration 🇬🇧 United States | 840 opportunities |

| HHS | European Commission 🇬🇧 European Union | 409 opportunities |

enago
Author First, Quality First

Tools for Research Funding

ELSEVIER

Q SEARCH

Funding Institutional offers access to the following content:

3,000+
government and private funding
organizations, including 1,600
funders in the U.S.

20,000+
active funding opportunities

$70+ Billion (USD)
worth of active funding
opportunity

2M+
awarded grants

$2+ Trillion (USD)
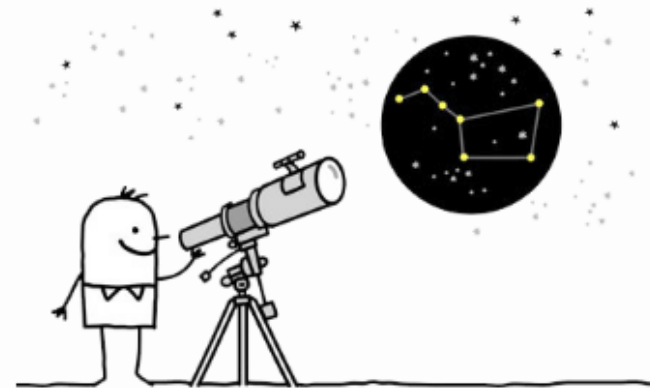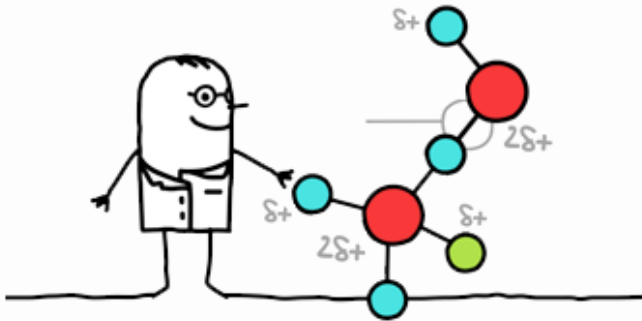worth of awarded grants

ELSEVIER

Elsevier Funding Solutions for Researchers

We help researchers who want to find funding by reducing the time required to search for relevant opportunities and increasing the probability to find funders and opportunities they wouldn't have found otherwise.

Decide to apply for funding > **Find funding opportunity** > **Find collaborators** > **Prepare the proposal** > **Submit the proposal**

enago
Author First, Quality First

Tools for Research Funding

Tools for Research Funding

pivot™

Log in   Sign up

Get Started ▶

FUNDING OPPORTUNITIES
- Comprehensive global source of funding opportunities
- Billions of dollars in funding and growing

PRE-POPULATED SCHOLAR PROFILES
- Your institution's profiles matched against funding opportunities
- Find collaborators from among 3 million profiles worldwide

Intelligent Mapping Tools leverage expertise to propel research uniquely targeted to your organization.

EDITORIAL INTEGRITY
- Funding opportunities updated daily
- Our editorial team covers over 11,500 sponsors, both national and international
- Keywords are added to expedite discovery

  ▶ See our latest features

ONLINE MONITORING AND TRACKING
- Monitor and track opportunities to receive the latest updates
- Stay on top of critical deadlines
- Disseminate funding opportunities and track the status of researchers' responses to enhance communication regarding projects, funding, and collaborators

https://pivot.cos.com/

enago™
Author First, Quality First

Challenges

- Allocation of funding is based on national and local policies, processes and priorities

- Data (research) obtained via collaborations should meet certain quality standards and research integrity

- Ensuring a transparent, impartial and consistent peer-review process for applications

- Increasing opportunities for collaboration and impact of research

- Tracking research output through acquired research funding

enago
Author First, Quality First

Administration of Research Projects

*Cantú-Ortiz F. J. 2015. A research and innovation ecosystem model for private universities. In: *Private Universities in Latin America*, pp 109-130. Palgrave Macmillan, New York.

Research Projects - I

- Types of projects: grants, industry, fellowships

- Life cycle of research projects

- Research proposal elaboration

- Proposal evaluation by peers

Research Projects - II

- Lobbying

- Producing technical and financial reports

- Dealing with delays and staff rotation

- Bioethics, Medical protocols

Research Projects - III

Pre-Awards

Post-Awards

Ethical Responsibilities

enago
Author First, Quality First

Pre-Awards - I

- Learning about research trends and hot topics

- Guidance in learning about the state of the art in researchers' research field

- Finding funding opportunities and share with researchers

- Working with funding agencies and partners

enago
Author First, Quality First

Pre-Awards - II

- Identify funding parameters and terms and conditions of sponsors

- Preparation of applications and basics of writing proposals

- Components of budget development

enago
Author First, Quality First

Pre-Awards - III

- Institutional review and approval processes

- Proposal submission and post submission activities

- Good news (one out of ten)

Post-Awards - I

- Support researchers in managing research funds

- Collaborating with researchers for financial reports

- Regular audits of utilization of research funds

- Highlighting irregularities (excess spending) to researchers and university management

Post-Awards - II

- Ensuring compliance with policies, regulations, and procedures

- Identify training opportunities for researchers and staff

- Account/fund establishment,

- Cost principles,

Post-Awards - III

- Financial management,

- Re-budgeting, and sub recipient monitoring

- Award closure

- Research Products

  - Publications (Journal articles, conference papers, research books, book chapters, reviews, other)

  - Patents

9:enago
Author First, Quality First

Post-Awards - IV

- Research Evaluation

  - Institution, faculty, groups, individual level

- Researcher education

  - Undergraduate, Master's, PhD, Post-docs

- Prestige

  - Divulge

  - Research social networks

  - Rankings

Ethical Responsibilities

RAs also help researchers comply with the

following committees:

- Institutional Review Board (IRB)

- Institutional Animal Care and Use Committee (IACUC)

- Institutional Biosafety Committee (IBC)

- Conflict of Interest in Research (CoIR)

- Scientific Integrity Committee (SIC)

  - There is limited involvement of RAs when scientific issues are being

    challenged

Takeaway Points

- Relevance of RAs in today's research environment

- Expectation from research administrators

- Role of research administrators

- Role of clinical research administrators

- Acquiring research funding for institutions

Sharing Research Outcomes and Attaining Prestige

International Visibility

- Exposure through Research Social Networks

  - Google Scholar (https://scholar.google.com.mx/)

  - ResearchGate (https://www.researchgate.net/)

  - Academia.edu (https://www.academia.edu/)

  - Microsoft Academic (https://academic.microsoft.com/)

  - LinkedIn

- Website in English language

- Brochure and pamphlets to share research results in English

enago
Author First, Quality First

Scopus Author ID: Example

Pedraza-Morales, M. I.

Follow this Author

Benemerita Universidad Autonoma de Puebla,
Puebla, Mexico
Author ID: 56271645700
Other name formats: (Pedraza, M. I.) (Pedraza, I.) (Pedraza-Morales, M. I.) (Pedraza Morales, M. I.)

View potential author matches

Subject area: (Physics and Astronomy) (Engineering) (Mathematics) (Multidisciplinary) (Chemistry)
(Biochemistry, Genetics and Molecular Biology)

Document and
citation trends:

■ Documents
● Citations
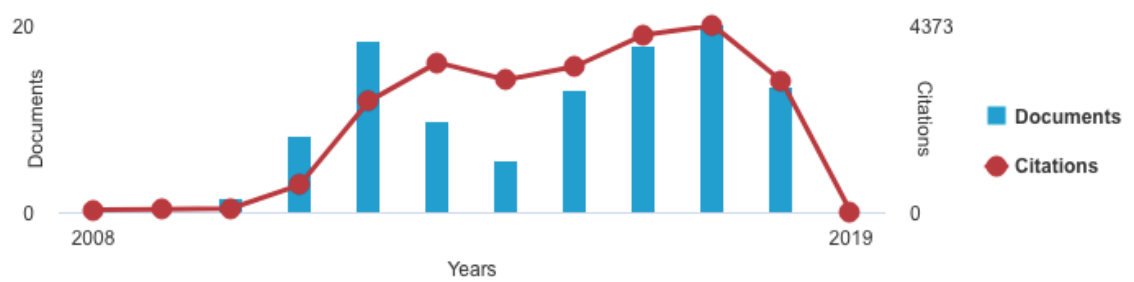
h-index: ⑦
65

View *h*-graph
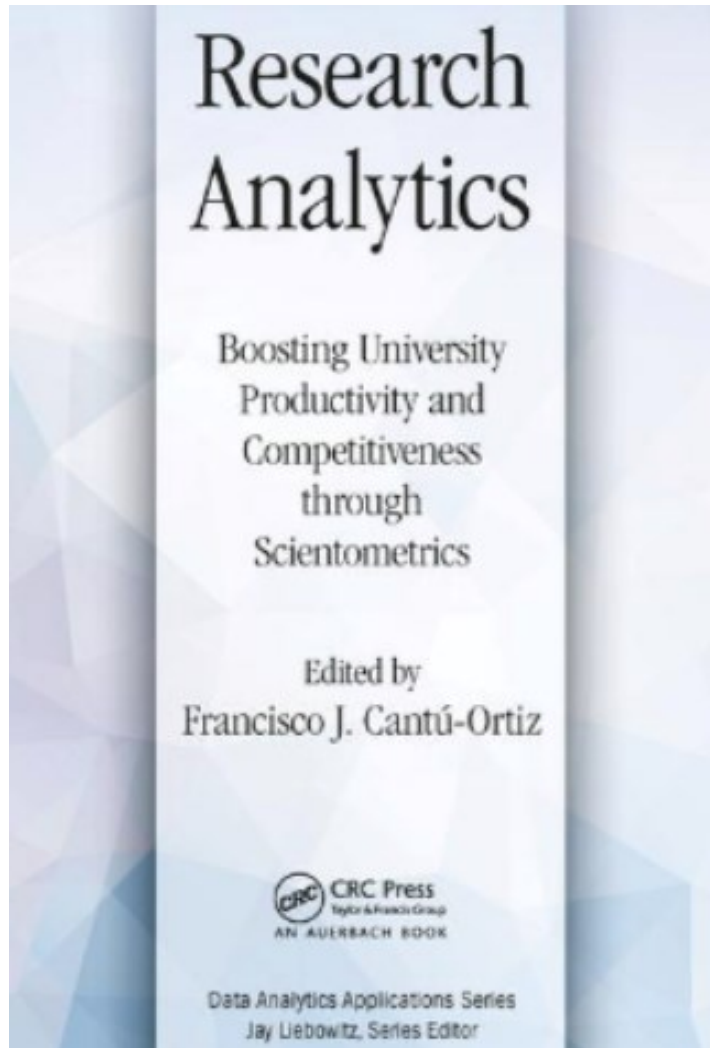
Documents by author
658   Analyze author output

Total citations
25213 by 12729 documents
View citation overview

⚠ Get citation alerts   ＋ Add to ORCID ⑦   ⚗ Request author detail corrections   ⇥ Export profile to SciVal

658 Documents   Cited by 12729 documents   150 co-authors   Author history

:enago
Author First, Quality First

University Rankings - I

QS WUR Overall Rank

University Rankings - II

Research Analytics

Boosting University Productivity and Competitiveness through Scientometrics

Edited by
Francisco J. Cantú-Ortiz

CRC Press
Taylor & Francis Group
AN AUERBACH BOOK

Data Analytics Applications Series
Jay Liebowitz, Series Editor
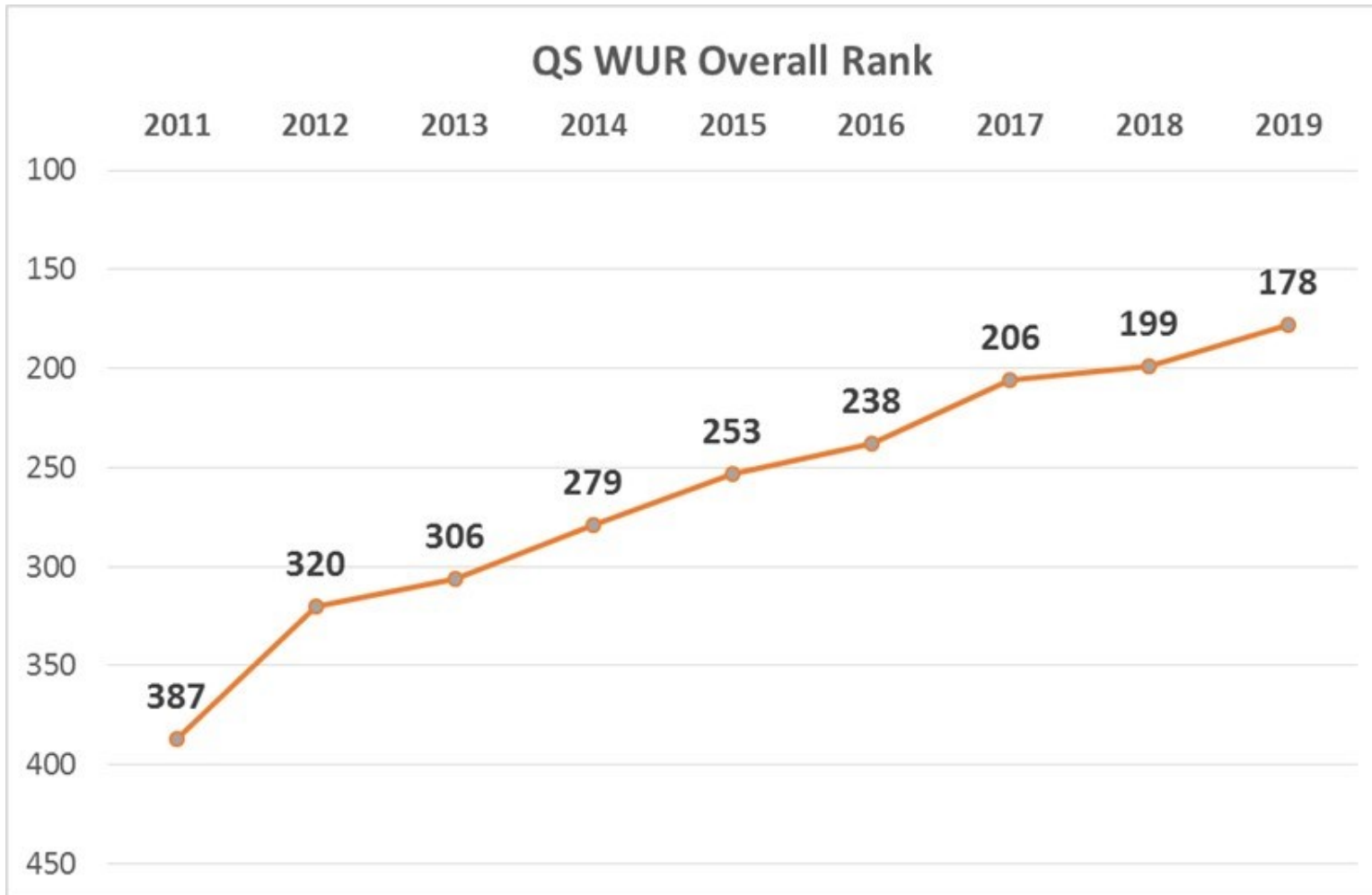
SECTION II APPLICATION OF SCIENTOMETRICS TO UNIVERSITY COMPETITIVENESS AND WORLD-CLASS UNIVERSITIES

Source: Cantu-Ortiz, F.J., 2017. *Research Analytics: Boosting University Productivity and Competitiveness Through Scientometrics*. Auerbach Publications: Boca Raton, Florida.

enago
Author First, Quality First

Gracias!

enago
Author First, Quality First

Preguntas y Respuestas

Escanee el código QR para acceder a nuestra

encuesta y obtenga un código de descuento

exclusivo para los servicios de Enago

:enago
Author First, Quality First