

Increase the Impact of Your Journal Publications

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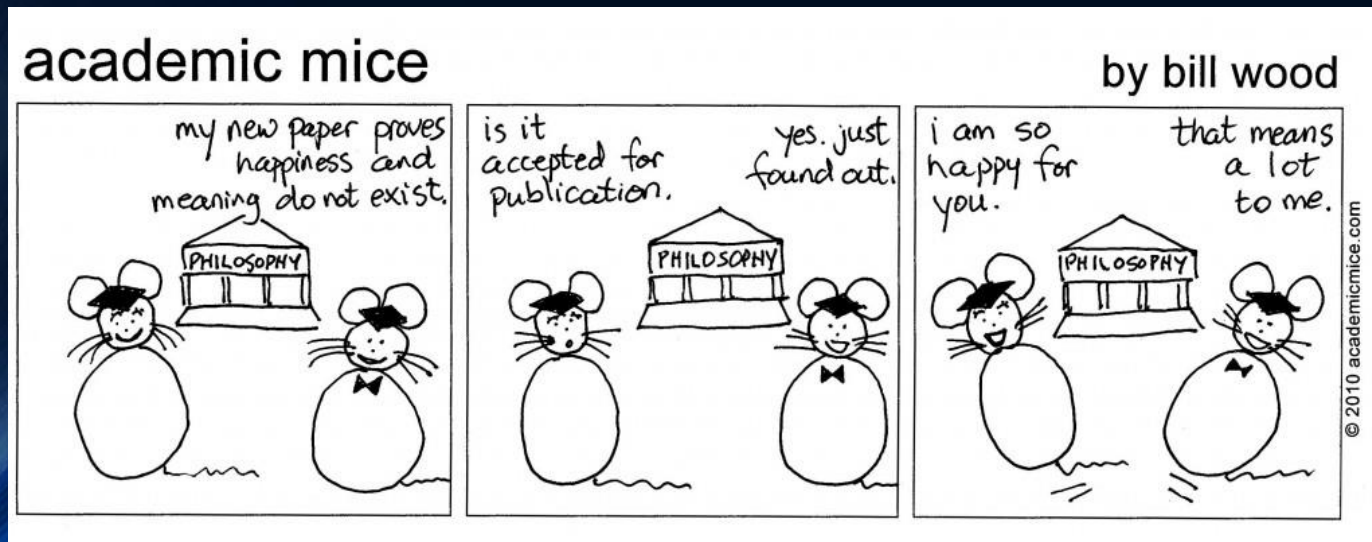
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REPRESENTING:
THE JOURNAL OF ENGINEERING EDUCATION,
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Publication as a dissemination plan: How can you make it more impactful?

- Optimize aspects of your publication: Keywords, title, first sentence
- Control your story: Social media and networking
- Know your options: Open access
- Understand the numbers: Impact factors and indices



Academic Search Engine Optimization: Enhancing visibility and impact

- Select strong keywords/phrases and synonyms
- Write a good, short title (~7 words)
 - Include one to two keywords in first ~65 characters
- Optimize your abstract
 - Use keywords 3-6 times in first two sentences
 - Place essential findings in first two sentences
- Use the keywords in main text and headings

Keywords and the EER Taxonomy

- A standardized terminology and organizational system to map the field and communicate our research initiatives – a set of keywords
- 14 branches, 6 levels, 455 total terms

1. Assessment

- 1.a. Organizational assessment
- 1.b. Professional licensure
 - 1.b.i. Chartered engineer
 - 1.b.ii. Professional engineer
 - 1. Fundamentals of Engineering exam
- 1.c. Program evaluation
 - 1.c.i. Accreditation
 - 1. ABET
 - 2. Criteria [syn: Outcomes]
 - 1.c.ii. Advisory boards
 - 1.c.iii. Course assessment
 - 1.c.iv. External evaluation
 - 1.c.v. Multilevel program assessment
- 1.d. Student assessment
 - 1.d.i. Assessment tools
 - 1. Feedback

2. Design

- 2.a. Design practice
 - 2.a.i. Ideation
 - 2.a.ii. Information gathering
 - 2.a.iii. Modeling
 - 1. Physical modeling
 - a. 3D modeling
 - b. Prototyping
 - i. Rapid prototyping
 - 2. Process modeling
 - a. Flowcharting
 - 2.a.iv. Needs analysis
 - 2.a.v. Problem definition
 - 2.a.vi. Product testing
- 2.b. Design projects
 - 2.b.i. Capstone projects [syn: Senior projects, Senior design]

3. Diversity

- 3.a. Diversity concerns
 - 3.a.i. Bias
 - 3.a.ii. Discrimination
 - 3.a.iii. Inclusivity
 - 3.a.iv. Multiculturalism
 - 3.a.v. Student Diversity
 - 3.a.vi. Underrepresentation [syn: Underrepresented students]
 - 3.a.vii. Workplace diversity
- 3.b. Types of diversity
 - 3.b.i. Gender
 - 1. Female [syn: Women, Girls]
 - 2. Male
 - 3. Transgender
 - 3.b.ii. Individual differences
 - 1. Learning styles

Selecting keywords

- Use online keyword finder:
taxonomy.engin.umich.edu/taxonomy

The screenshot shows a web browser window with the URL taxonomy.engin.umich.edu/taxonomy/. The page has a blue header with the word "TAXONOMY" in white. Below the header, the text "A Taxonomy for the Field of Engineering Education Research" is displayed. The main content area is titled "Use the Taxonomy". It includes a section for "The current taxonomy" with a link to "EER-Taxonomy-Version-Current". There is a "Selecting keywords" section with instructions on how to use the iPhone app or the Keyword Finder. The "Keyword Finder" section contains a text input field with "electrical" and a dropdown menu showing "Electrical engineering". To the right of the main content, there is a search bar, a "Click Here to Use the Taxonomy" link, "Contact Information" for Cindy Finelli, PhD, and "Project Sponsor" information from the National Science Foundation.

Use the Taxonomy

A Taxonomy for the Field of Engineering Education Research

Use the Taxonomy

The current taxonomy
You may access the current taxonomy ("EER-Taxonomy-Version-1.0") here: [EER-Taxonomy-Version-Current](#)

Selecting keywords
You may download the taxonomy iPhone app ("EER Taxonomy") from iTunes app store at [this link](#) or you may select keywords from the taxonomy from the following "Keyword Finder"

Keyword Finder

Find a keyword in the current taxonomy by typing a search term here and viewing the drop-down list:

electrical
Electrical engineering


Suggesting new keywords
You may propose new keywords at [this link](#)

Guidelines for assigning keywords
Identify one or two keywords from each of the following three categories:

Search this website ... Search

Click Here to Use the Taxonomy

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Project Sponsor
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Academic Search Engine Optimization activity

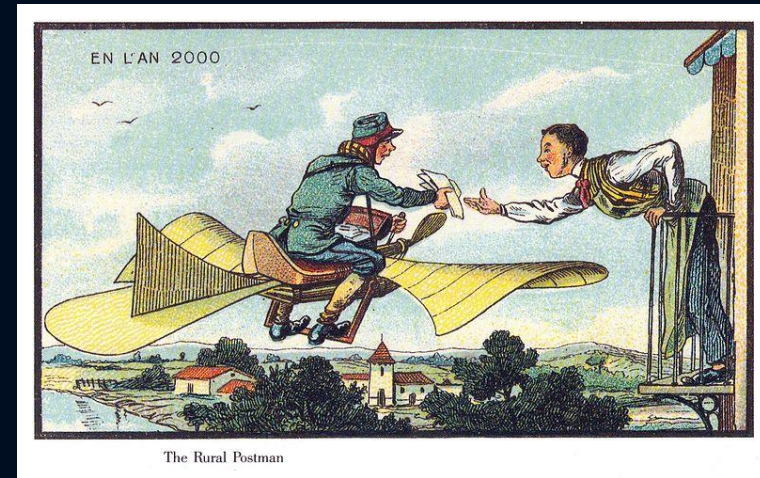
- For the abstract you've been provided,
 - Review and revise the set of 3-5 keywords
 - Draft a title that better accounts for Academic Search Engine Optimization
 - Consider ways to better highlight the keywords in the abstract

Social Media: Why and how

- Small group rapid fire activity
 - Why would the engineering education research community use social media? List 3 top reasons
 - Share with larger group for discussion
- Back in small groups
 - Build a list of social media outlets
 - Identify why and how each might be used (audience, purpose, outcomes, novelty)
- Whole group discussion
 - Which social media platforms meet the needs of our community?
 - How do we use them effectively?

Using social media to increase visibility and impact of your research

- Build a targeted profile
 - Describe the value of your work in your social media profiles
 - Use hashtags to get attention of specific audiences (i.e., #NSF)
- Engage your audience in meaningful conversations; be the thought leader
- Make social engagement a habit; stay up to speed with peers and stakeholders
- Think before you post:
How will this look on the cover of USA Today?



Some notes about blogs

- Pick the right platform
 - Medium - Content specific and organized by topic
<https://medium.com/>
 - Blogger and Wordpress - Popular and easy to get started
- Write what you want – thought pieces, conversations
- Write for the sake of writing – not just for building an audience



What version of my article can I post online?

- Any version can be shared for teaching and in grant proposals
- Submitted version (not published, Wiley hasn't added value)
 - Personal website, institutional repository
 - Scholarly Collaboration Networks that have agreed to article sharing principles (Mendeley – yes; ResearchGate – no)
- Accepted manuscript (prior to publication)
 - 12-month embargo period before sharing is allowed
 - Before embargo, can be shared within private, closed groups
 - After embargo, can be shared **with notice on first page**, such as:
 - *“This is the pre-peer reviewed version of the following article: [FULL CITE], which has been published in final form at [Link to final article using the DOI]. This article may be used for non-commercial purposes in accordance with Wiley Terms and Conditions for Self-Archiving.”*

Can I post my article after publication?

- “Version of Record” (final published version)
 - Private research collaboration groups
 - No public posting of final articles unless published under Open Access option
- Resources:
 - [Wiley’s article-sharing policy](#)
 - [Search other publisher’s copyright & archiving policies](#) : Sherpa

Open access publishing myths

- Complete the *Open Access Publishing Activity* in pairs or small groups

Open access publishing myths answers

1. **True.** Open Access provides free, unlimited access to academic articles for everyone.
2. **False.** Open access journals are reviewed.
3. **False.** While there may be poor quality open access journals out there, a good sign to determine quality is to see if they are members of OASPA or COPE that adhere to industry standards.
4. **False.** Predatory journals exist, but any work submitted to a reputable publisher must be peer reviewed.
5. **False.** Many publishers offer fee waivers and discounts, and some libraries/institutions and funders will cover the cost.
6. **False.** There are higher and lower quality open access and print journals.
7. **False.** Open access publishing is not the same as vanity publishing.
8. **False.** Many people benefit from open access. Open access journals are free to read, download and cite for all readers and researchers. They also provide global exposure for your work!
9. **False.** Authors retain full copyright of open access articles. Unlike many subscription journals, choosing an open access journal means you hold the copyright for your work (rather than this copyright transferring to the publisher).
10. **True.** For an additional fee to help the publisher recoup expenses, *JEE* authors can have their articles appear online as open access.

Open access publishing summary

- Publishing **open access** means anyone can access your article online
 - Can lead to greater readership and impact
- Open access journals can be high or low quality
 - Check peer review, publisher reputation, impact factors
- Fees may be associated with open access publishing
 - Journals may need to recoup subscription/access fees
 - Inquire with your institution (library) for small grants
- You may be able to retain copyright
- *JEE* offers an open access publishing option

Measures of impact

- Complete the “Characteristics of Impact Factors Activity” in pairs or small groups

Measures of impact

Impact Factor

e.g., Web of Science

- Property of a journal
- Can also be ranked in relation to journals in the same field
- Updated every year, and can increase or decrease over time
- ($\frac{\text{\# citations in the past year to articles published in a given journal in the past two years}}{\text{total \# articles published in the two year period}}$)
- Accessible through library
Web of Science > Citation Reports

Citation count

- Property of a single publication (usually), journal, or author
- Updated continuously
- Does not decrease over time
- # times cited
- Accessible on Google Scholar or Web of Science

More measures of impact

h-index

- Usually author level but could be applied to a journal
- (# times the most highly cited articles are cited)
- Accessible on Google Scholar

I10-index

- Author level metric
- # academic publications an author has written that have at least ten citations from others
- Developed by Google
- Accessible on Google Scholar

Even more measures of impact

Eigenfactor

- Journal-level metric but extended to author
- Overall influence of the journal
- Citation counts plus info on the citing journals
- Sensitive to # articles published by the journal
- Accessible at eigenfactor.org for journal values

Altmetrics

- Paper-level metric
- Number plus information about where the article is mentioned
- Uses citation counts and social media
- Blogs, Twitter, page views, Mendeley, GitHub
- Accessible through publisher or library

Characteristics of Impact Factors

	Impact Factor (e.g., Web of Science)	Citation count	Eigenfactor	h-index	i10-index	Altmetrics
Typically a journal-level metric	X		X			
Typically an author-level metric				X	X	
Typically a paper-level metric		X				X
Find your numbers on Google Scholar		X	X	X	X	
Find your numbers through your library (if they subscribe)	X					X
Find your numbers online			X for a journal			
Find your numbers through your publisher						X
Updated annually/can decrease over time	X					X
Updated continuously, doesn't decrease		X	X	X	X	
Normalized to number of articles published	X					
Sensitive to number of articles published		X	X	X	X	(X)
Uses number of citations in calculation	X	X	X	X	X	X
Uses social media in calculation						X

Resources

- Start with librarians at your institution
 - They helped us prepare this session
 - They are knowledgeable about publishing, search engines, etc.
 - They can provide access and best practices for using institutional repositories
 - They interact regularly with publishers
- Author resources on publisher sites
 - Example: Wiley's author pages at <https://authorservices.wiley.com/home.html>