Grant Writing Scholarship & Strategies

Part 2
Monday, April 29, 2024
Agenda

• Introductions
• Exercise: academic vs grant writing
• Resources available to faculty at CU Denver
• Resources available to faculty online
• Being competitive
• Reaching out to Program Officers
• Raising your research profile
What does Academic or Scholarly writing mean to you?
What does grant writing mean to you?

<table>
<thead>
<tr>
<th>Academic Writing</th>
<th>Grant Writing</th>
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<tr>
<td><strong>Scholarly pursuit:</strong></td>
<td><strong>Sponsor goals:</strong></td>
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<tr>
<td>Individual passion</td>
<td>Service attitude</td>
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<td>Past oriented:</td>
<td>Future oriented:</td>
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<tr>
<td>Work that has been done</td>
<td>Work that should be done</td>
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<tr>
<td>Theme-centered:</td>
<td>Project-centered:</td>
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<tr>
<td>Theory and thesis</td>
<td>Objectives and activities</td>
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<tr>
<td>Expository rhetoric:</td>
<td>Persuasive rhetoric:</td>
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<tr>
<td>Explaining to reader</td>
<td>“Selling” the reader</td>
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<tr>
<td>Impersonal tone:</td>
<td>Personal tone:</td>
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<tr>
<td>Objective, dispassionate</td>
<td>Conveys excitement</td>
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<tr>
<td>Individualistic:</td>
<td>Team-focused:</td>
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<tr>
<td>Primarily a solo activity</td>
<td>Feedback needed</td>
</tr>
<tr>
<td>Few length constraints:</td>
<td>Strict length constraints:</td>
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<tr>
<td>Verbose rewarded</td>
<td>Brevity rewarded</td>
</tr>
<tr>
<td>Specialized terminology:</td>
<td>Accessible language:</td>
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<tr>
<td>“Insider jargon”</td>
<td>Easily understood</td>
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- Academic writing is a specific style of writing that is primarily used for scholarly papers and journal articles.
- Grant writing is a balance between showcasing your skills and intellect, getting a funder excited about your idea, and ensuring the language used is accessible to a variety of reviewers.
- Grant writing is about what you want or plan to do.
Writing Support at CU Denver

• **CU Denver Writing Center**
  • Supports faculty with professional-development and course/curriculum courses; a variety of workshops and handouts are available on the Writing Center website; the Center can connect faculty with qualified editors as well (this is a pay for use service)

• **Student Interns via the Technical & Professional Writing Undergraduate Certificate Program**
  • FREE student support for faculty writing and preparing grant applications; submit your query via this short [google form](#)

• **Center for Faculty Development & Advancement (CFDA)**
  • Offers Writing programs & retreats which offers networking opportunities and access to information and strategies to maximize writing time and effort; support for faculty Writing Affinity Groups.
Services Offered:

• Will review concept notes and provide feedback and will work with faculty on their proposal to ensure the proposal is responsive to what the funder is looking for

• This includes ensuring your language aligns with the funder (NIH vs. NSF=AIMS vs. Objectives)

• Will go over reviewer comments if your proposal is not accepted to help you with a resubmission
To bot or not to bot: Using generative AI in grantwriting

By David M. Holmes (he/him) and Kristin Hanlin (she/her) | February 14, 2024

How Generative AI Owns Higher Education. Now What?

• **Generative AI** refers to deep learning models that can generate high quality text, images, and other content based on the data they were trained on.

• AI tools can be used to **support** a variety of tasks that faculty are responsible for.

• While there isn’t a formal CU Denver policy on use of AI, the following should be considered:
  • AI tools should be used to support your work, they should not be used as a replacement for original ideas.
  • You must understand university protections and security controls to ensure data are protected.

• This is **NEW** territory and tools and protocols are changing rapidly.
Ten Rules for Leveraging Large Language Models (LLMs) for Getting Grants

1. Check sponsor guidelines for AI policies
2. Consider data privacy limitations
3. Do not use AI to write your grant
4. Use prompts for specific feedback
5. Fact check everything
6. Do not copy-paste
7. Use AI to improve your grant writing
8. Use AI to inspire new grant figures
9. Interact with humans!
10. Citation/Suggested Reading, here
There are many AI tools out there to help you think through your ideas and better understand what a funder wants. AI tools are a great way to start the writing and idea generation process. Journals and funders often have statements about the acceptable use of AI. It is your responsibility to know what those parameters are.
Many AI tools learn from you as you use them more and paid versions offer more possibilities than free versions.

Learn how to prompt or ask questions—the better the prompt, the better the output.

Ways AI can support your writing?
- Can help you get unstuck
- Can be used to enhance the clarity of your writing
- Can make your text more compelling
- Can improve the flow of your text
- Can shorten or expand text to create an abstract or summary statement, get what’s written to length, etc.
- Can better align your writing with the funding agency’s mission
- Can better align your writing with reviewer criteria

ORS resource: Use of AI in Proposal Development
Writing a Competitive Proposal
The next slides present some exercises you can do to ensure you are on the right (competitive) track.

Develop an Initial Strategy
Exercise 1: Know the Landscape in Your Field

1. What are the current trends in your field?
2. What are the key gaps in knowledge hindering the advancement of the field?
3. How might these gaps be filled?
4. What work is currently addressing these gaps?
5. What would be the impact of filling these gaps?

This exercise is not just for “typical research” this can be applied to creative activities…..

- Course creation
- Documentary filmmaking
- Workforce development
- Archival research
Exercise 2: Know the Funding Landscape in Your Field

1. Who are the key funders in your field?
2. What are their priorities? These can be stated & unstated.
3. What are the overall funding trends in the field?
4. Are there potential untapped sources of funding in your field?
Exercise 3: Develop a Long-term Funding Strategy

1. Identify individuals or institutions in your field who have had exceptional success with grant funding
   1. Retrace their steps- what contributed to their success?
   2. Establish mentoring relationships if possible.

2. Map out an ideal funding trajectory
   1. Map out long-term targets
   2. Develop and short- and medium-term strategy so you can be competitive when pursuing long-term opportunities

3. Create a plan with action steps
   1. Revisit and revise this plan regularly
Develop a Concept

The next slides present some exercises you can do to ensure you are on the right (competitive) track.
Putting together a Concept Note (1-3 pages) allows you to clearly define your project from the beginning.

- Concept note includes a “clear product” that is relevant to the funder’s interests & priorities, is impactful, and is exciting
- There must be a logical plan that walks your audience how you will get from A to B
- A concept can be a flexible document….meaning, you can “shop” it to multiple funders
- A concept note is NOT just for funders- this can be sent to a mentor, colleagues/peers, and someone at ORS
The first step in concept development is to identify a gap in the field that your work will address.

The second step is to articulate a goal...your field determines how this goal is presented:
- It could be a research question or an intended impact.
- The goal should be interesting and exciting!

The third step is to create structure that shows how you will reach your goal:
- Resources needed, co-investigators/team members, what will you do, expected results, impact you hope to have.
Transitioning your concept to a concept paper allows you to introduce your project to funders.

If you are targeting a specific funder, then tailor your note to that funder’s structure and style:
- NSF would include Intellectual Merit & Broader Impacts
- NIH would include Aims, Significance, Innovation & Approach

Find a balance in your note—keep it succinct but detailed. ORS can help you refine this!

The concept note can be used as the basis for a Letter of Inquiry or as a starting point for a conversation with foundation/funder staff.
Tips for a Successful Concept Paper

- Highlight key areas that are likely to capture a funder’s attention
- Focus on need & impact
- Balance selling & telling…..sell the concept note and tell in a grant application
- Use emphasis judiciously (bold, underline, italic)
Reaching out to Program Officers
Meet Your Program Officer

- A Program Officer (PO) oversees the development of programs within a funding agency and seeks out applicants/proposals to support the work.

- A PO is usually listed as the point of contact for a listed funding opportunity - this is who would read your concept note and who will be your primary liaison should you get funded.

- A PO manages a portfolio of grants - as a PO they seek out strong applications/applicants and they want their portfolio of projects to be successful --> they are rooting for you!
The initial reasons for contacting a Program Officer include:
- To determine fit or relevance of your idea
- To gauge enthusiasm/interest for your proposed research
- To better understand suitability of your work as well as funder policies

What are other times you may want to speak to the PO?
- When you receive a rejection
  - Bummer! Understanding the critiques and reviews, getting constructive feedback, and understanding if/when you should resubmit would be the focus of this discussion.
- When you receive a notification of award (NOA)
  - Woohoo! Determining next steps would be the focus of this discussion.
• Always email, never cold call
• Make sure you know the funding opportunity and have attempted to get any questions answered using the availability of information online
• Create a succinct but thorough outreach email (guidance in link below)
• Include a concept note as an attachment
• You can meet with an ORS staff member ahead of time to practice, receive guidance and get input on materials
• If pursuing foundation funding, you may want to reach out to the Office of Avancement
Raising the Profile of Your Research
CU Denver provides some support for faculty to boost their research impact (i.e. faculty pages, UComms guidance, etc.) but faculty also need to take their impact into their own hands.

There’s no real consensus regarding what additional avenues faculty should explore, but here are some good practices:

- Publish in high-impact journals
- Collaborate with peers
- Utilize social media & academic networks
- Attend & present at conferences
- Seek funding opportunities
- Write for public audiences
- Utilize Altmetrics
- Engage in knowledge translation
- Participate in outreach activities
- Mentor & collaborate with students
- Open access publishing
- Promote research through funder & institutional channels

The above outlines short- and long-term things faculty can do, we’re going to focus on some more immediate things to get you started.
Google Scholar Profile

• Google Scholar is often the first place someone goes to for more information after searching a University or Department website.

• By claiming your Google Scholar profile you can identify all your publications, link them to your profile, and keep track of how others are citing your work.

Create and Manage a Google Scholar Profile

Additional profiles to set up include:
• Academia.edu
• ResearchGate
• Mendeley
• LinkedIn-Twitter-Facebook
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<th>TITLE</th>
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<tr>
<td>Drawdown: The most comprehensive plan ever proposed to reverse global warming</td>
<td>933</td>
<td>2017</td>
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<td>P. Hawkins, Penguin</td>
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<td>City scanner: Building and scheduling a mobile sensing platform for smart city services</td>
<td>144</td>
<td>2018</td>
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<td>A. Anjomshoaa, F. Duarte, D. Rennings, T.J. Matarazzo, P. deSouza, C. Ratti</td>
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<td>IEEE Internet of Things Journal 5 (6), 4567-4579</td>
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<td>Structural Racism and COVID-19 in the USA: a County-Level Empirical Analysis</td>
<td>139</td>
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<td>SB Tan, P. deSouza, M. Rafman</td>
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<td>Journal of Racial and Ethnic Health Disparities, 1-11</td>
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<td>Air quality monitoring using mobile low-cost sensors mounted on trash-trucks: Methods development and lessons learned</td>
<td>86</td>
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<td>P. deSouza, A. Anjomshoaa, F. Duarte, R. Kahn, P. Kumar, C. Ratti</td>
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<td>Sustainable Cities and Society 60, 102239</td>
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<td>A Nairobi experiment in using low cost air quality monitors</td>
<td>47</td>
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<td>P. deSouza, Y. Nhusi, K. Jacqueline, B. Shaw, W. On Ho, J. Saffell, R. Jones, ...</td>
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<td>Clean Air Journal 27 (2), 12-43</td>
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<td>On the distribution of low-cost PM$_{2.5}$ sensors in the US: demographic and air quality associations</td>
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Public access

- 0 articles
- 18 articles

Based on funding mandates
ORCID

- ORCiD stands for **Open Researcher and Contributor ID** and is a free, unique, persistent identifier
- Having an ORCID is required by over 80 publishers, funders and other organizations
- Allows you to claim a scholarly identity and keep your publication record up to date
- You can link your ORCID to LinkedIn, Google Scholar, ResearchGate and your website
- Very versatile and can pull in any product including publications and books, datasets, and art
- You can use your ORCID when establishing your data repository (i.e. Zenodo), creating your biosketch for a funding application (i.e. SciENcv), or looking for funding or collaborators (i.e. PIVOT)
Every CU Denver faculty member should have a detailed and up to date faculty profile page with an embedded up to date CV (at the least)

Work with your School/College Communicators to either create OR update an existing profile page

Mark Golkowski, PhD
Professor of Electrical Engineering
Associate Dean of Education and Student Success

Mark Golkowski is a professor in the Department of Electrical Engineering at the University of Colorado Denver. His areas of interest involve electromagnetics and plasma physics in nature and the laboratory. Mark Golkowski has done extensive experimental work with the HAARP facility in Galena, Alaska involving ionizing the ionosphere and magnetosphere. He is also leading work on using plasma discharges for disinfection and decontamination in the medical field. He is also investigating thermo-acoustic hybrid imaging using both simulations and experiments.

Interests
- Electromagnetic waves in the ionosphere and magnetosphere
- Plasma discharges for decontamination/decontamination and treatment of live tissue
- Active experiments with the HAARP facility

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CAM: Alice Crogan
CAP: Carmen New
CEDC: Katelyn Howell
CLAS: Elly Lewis
SEHD: Julia Cummings
SPA: Toula Wellbrook
Summer Plan to Raising Your Research Profile:

COMPLETE THE 30-DAY IMPACT CHALLENGE

Many of you have already done some of this, but if you follow the guide (see Supplementary Materials), your research will get a boost in exposure and you will grow your network.
30-Day Impact Challenge

• Will supercharge your research impact by:
  • Enhancing your professional visibility via social media
  • Boosting readership & citations by getting your work online
  • Automating alerts so you stay on top of developments in your field
  • Strengthening your network and potential collaborations
  • Allowing you to better track and report on your research impact

• Example tasks include:
  • Setting up various social media accounts & learn how to link accounts and automate posting of content
  • Understanding all the ways to share your data and research online
  • Creating a meaningful professional-research identity
  • ….and many more!