Developing a Proposal for the Latham Center for Science Communication an Engagement, and an Online Submission Service to Convert Technical Pieces of Writing to General Audience Formats

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12/10/15
I. Project Summary

I seek to propose and head the initial development of the Latham Center for Science Communication and Engagement. Following the guidelines and format of the proposal to the Board of Regents, I will draft, revise, complete and submit a proposal discussing the importance of scientific communication and establishing a science communication and engagement institution at the U of I. To aid in this process, I will establish a list of faculty endorsements and advocates, develop a web ad social media presence, and establish a service that allows researchers to submit technical pieces of writing that could be converted to a general audience format. I will publicize this service to researchers, using vehicles such as mass emails, flyers at poster sessions. Additionally I will receive submissions of technical research descriptions, convert them to a general audience format, and return the general audience writings to the “clients”. Finally, longevity of the service and the institution are both important so I will determine strategies to keep service running in the long-term and consider expansions. Ideally this institution should exist beyond reasons of science communication. Eventually, the science education component would be added.

II. Proposal Narrative

A. Background and Objective

I believe that investigators and their lab personnel are most affected by the need to communicate to a general audience. With a large variety of people involved and impacted by the domain of research (including reviewers, donors, families impacted by diseases and topics being studied, politicians), it is heavily important for any researcher to make an effort to practice science communication to convey the broader impact of the research, receive grants, etc. Individuals involved in research (as a research associate or scientist, or a principal investigator) encompass a wide variety of characteristics (males, females, many different ethnicities, education levels – BS, MS, PhD, MD, MD/PhD, MPH, etc.).

The general public/community is also affected by the topic of science communication (or research communication to a general audience). Despite contrary opinions, the general public can understand scientific research and are interested in learning how the latest research impacts them. However, considering the fact that most members of the general public do not have years of coursework in the sciences under their belts, scientists and researchers must convey the meaning of their work in a non-technical fashion.

Institutions such as the NSF, NIH, and the Department of Education (and its smaller bodies) make funding, policy, and academic decisions regarding science communication. Local commissions and initiatives (such as Latham) also make funding, policy, and education decisions. However, science communication is just now starting to become more of a policy and education discussion, and the aforementioned institutions are only recently awarding funds specifically to encourage researchers and scientists to communicate the broader impact of their work.
The Latham Science Engagement Initiative (LSEI) has been a tremendous, first, positive step taken towards connecting scientists and the general public. To continue building from the foundation set by LSEI, I hope to propose and begin the initial development of a science communication and engagement center here at the University of Iowa, tentatively called the Latham Center for Science Communication and Engagement.

The primary goal of this project would be to establish the identity of such an institution through discussions and interviews with numerous faculty, staff, and academic and policy leaders on campus, and incorporate their voices into a well-constructed proposal for the Board of Regents.

Besides just developing and submitting a proposal, I seek to also set the foundation for the campus-presence of the group by establishing some service that could be provided to members of the university community. The primary purpose of this group would be to establish a service that would connect research labs to a non-scientist writer in the school of journalism or the office of strategic communications. Research labs would be able to submit requests where an abstract, publication, or lab website bio could be converted to a general audience format (similar to what Richard Lewis did for Dr. Chris Adams). These stories could get placed on lab websites, Iowa Now news, and even newspapers such as the Daily Iowan and Press-citizen.

My belief is that the main reason why scientists do not participate in general science communication is that they are consumed by putting so much work into technical manuscripts. Having written a couple manuscripts myself, I can testify that it is a draining process. Investigators and researchers already need to “create a story” when writing a technical manuscript, and publication is a rigorous process.

Scientists generally do not participate in general science communication because they are consumed by putting so much work into technical manuscripts and large grants. Having written a couple manuscripts myself, I can testify that technical writing by itself is a draining process. Investigators and researchers already need to “create a story” when writing a technical manuscript, and publication is a rigorous process. One might argue that it is unfair to ask scientists to put in additional work to also write a general audience form.

In short, investigators and scientists can become tired by the rigors of writing – few people truly enjoy it compared to actually performing the science. To solve this problem, I propose that a service should be offered that essentially offers a collaborator (i.e. free-lance writer) that is a part of the general audience and can translate a technical piece into a general audience version. Just how labs have designated biostatisticians, IT personnel, or a designated lab manager, labs now should have access to a service that consists of a number of professional journalists, strategic communicators, or undergraduate and graduate students.

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Since scientists are not necessarily against science communication but rather consumed by the needs of keeping a lab functioning, I wouldn’t say there is a particular attitude that needs to be changed. However, regarding the behavior of the primary audience, I believe that investigators (in particular) must learn (and want to learn) how to delegate general science communication to a designated member of the lab or learn how to use a free service such as the one I am proposing if they don’t have the additional personnel.

I believe that the big barrier to the audience is educating them how to use a web/submission service such as the one I am proposing. Another potential barrier is how to reach the physician scientists that will likely ignore a bulk of the media attempts due to demanding schedules and the enormous amount of messages they receive. If researchers and principal investigators do participate in reaching my goal, then they will receive benefits in the form of general audience versions of their publications (journal articles and abstracts), laboratory descriptions, etc. that can be used for the benefit of their laboratory. These benefits are attractive for general lab PR, a lab website, or submissions to conferences that require a general audience version of the abstract.

B. Audience Profile

My audience (i.e. university professors, physicians, researchers, journalists, lab personnel of all education levels, etc.) spends most of their time either in the lab, clinic, or office managing the lab or writing grants. It is difficult to identify a specific location where they are likely to give me their attention. I do believe that a university-associated website, through an established group (such as the office for research and economic development) is an online location that my audience would devote their attention to. I think that simple emails would not be sufficient in capturing my audience’s attention. Individuals involved in research are probably most likely to give attention to my project at a local research day or poster session and direct conversations. Those events target a large number of individuals actively involved in research.

C. Channels to Reach Audience

A complete list of channels to be used to reach my target audience (for the submission service) includes direct email (to entire university), the office of research and economic development website, the Latham Science Engagement Initiative website, televisions in the Pappajohn Biomedical Discovery building, MERF, and other research buildings. Regarding the Board of Regents proposal, one-on-one emails, discussions, etc. with individual professors, and a Daily Iowan editorial. Poster sessions and research days next semester (Health Science Research Week, Spring undergraduate research festival, Departmental research days) and the KRUI radio station can be used for both the proposal and the submission service.

D. Project Message

Using the aforementioned channels and described target audience, I seek to distribute the following message:
Have a paper, abstract, or study/laboratory description that needs to be translated to a general audience format? Submit it to the University of Iowa (Latham) Science in Society, and we will have a general audience version of your work back to you in 2-3 business days. See previous examples of submissions and products here! The Latham Science Communication and Engagement Center is composed of professional journalists, strategic communicators, and graduate and undergraduate students with experience in science communication. I would provide a link in this message that directs the user to the submission site and contains before and after examples.

E. Project Venue

My project venue for both the proposal and online submission website (technical to general audience conversion) is online.

F. Partnerships

Potential partnerships to be considered include the Writing Center, the Hanson Center for Technical Communication, the Office of Strategic Communication, and the Office of Research and Economic Development. These partnerships are mainly needed for networking, endorsements, and implementing my goals through existing infrastructures.

G. Evaluation

Regarding the proposal, I think the only relevant thing I can do is receive edits on the proposal from mentors and survey different faculty/staff regarding the development of a science communication and engagement center (using variations of questions from the proposal). Given the template for the proposal, this part of the activity is well defined, but difficult to measure.

The submission website is also a well-defined objective, and it is easy to measure. With websites and also submission sites, metrics such as number of visits to the sites and number of pieces of writing (and number of pieces of writing from different departments) can easily be compiled. These measures can be used to ascertain which research departments have not used the service.

It is difficult to create a benchmark regarding the formation of a proposal. From my own online research, I haven’t been able to find any university-specific websites that offer the type of service I am proposing. I think that a reasonable approach to defining a baseline would be to talk to the different writing centers on campus (in the English department, the College of Business, and the Hanson Center for Technical Communication in the College of Engineering) and obtaining information regarding how many submissions do they receive through any available online services and how many students do they assist on a per semester basis. I would also like to talk with Richard Lewis and others in the Department of Strategic Communication to determine how many requests they get from researchers and investigators to cover research news, and/or how many profiles do they select to do themselves. These numbers could all be used to see if my website/service receives a comparable number of submissions. Due to the smaller number of people served, it is understandable that the number of submissions would be lower compared to a
writing center that serves all undergraduate students. I will primarily use focus groups of faculty to just obtain information to use to answer the questions in the proposal.

I would also like to develop a brief online survey to go along with the submission website. Perhaps, after the general audience writing has been returned to the respective client, the online survey could be sent to them. Questions on the survey would include, what do you wish to use with the general audience version of your work, rate how satisfied you are with the level of writing of the general audience version, etc.

H. Project Documentation and Presentation

I intend on capturing my project through mainly writing and online components, press release, direct email, videos of interviews and preliminary discussions with faculty. My main project artifact will consist of examples of submitted technical versions and the corresponding general audience versions could be compiled and also displayed on the website and Latham site. Drafts and revisions, as well as the final version of the proposal could be saved and collected. Additionally, I intend on using journaling to document all my conversations with faculty and professionals. As mentioned, I will distribute different questions from the proposal to different faculty members, and save their responses to the questions.

I will showcase my project using a oral/visual presentation accompanied by a writing portfolio consisting of the final proposal and all drafts, my journaling, and faculty surveys, and example submissions and converted general audience versions. In my presentation, I will also provide a walkthrough of the website and show the audience how an example submission works. I will also incorporate some video clips from interviews and surveys of the different faculty.

I. Project Timeline

My primary objective would be to compose a thorough, well-edited proposal for a science engagement center, that could be submitted to the Board of Reagents. My secondary goal would be to compose a web service where scientific articles, abstracts, or other technical pieces of writing could be transformed to a general audience format by an undergraduate or graduate student, or a faculty/staff from the school of journalism or strategic communication. The consults that create these general audience versions would mainly come from the Latham program, the school of journalism, the writing center.

To complete the primary objective, I will first need to collect data. I intend on conducting online research on other science engagement centers that could be modeled off of in the proposal to help answer the necessary questions. Next, I actually intend on dividing up the questions listed on the proposal and distributing them to different faculty (probably one or two questions per faculty member to reduce the chance of non-response). I would like to collect input from different faculty members and synthesize their responses and ideas to create answers to the proposal questions that are more representative of the university (within the first 1-2 weeks of the semesters).
After I collect input for the different questions and compose a first draft, then I will begin the iterative process of editing. I intend on working with the course instructors to revise the proposal, address areas that need to be expanded or modified. I also have involvements and relationships with the honors program, the Hanson Center for Technical Communication, and other writing groups on campus. I seek to use these connections in the editing process.

After multiple, extensive rounds of revision with the course instructors, I would like to also take the proposal to individuals I know well including (Provost Buttler, Prof. and DEO Bernd Fritzch, Dean Kerri Hornbuckle, Prof. Daniel Reed and Dr. David Conrad from the office of research and economic development), and administrators of IBA and other centers on campus that are active in research.

Writing the proposal would be a continuous process. I will have a first draft completed by the start of the third week of the semester, and additional drafts composed a week within when feedback is obtained.

Regarding my secondary objective, I will begin by first meeting with Prof. Richard Lewis in the office of strategic communication and discuss the idea of establishing this web service, and potential factors to consider (recruiting free-lance writers, potential training, etc.).

Next, I will consult with faculty and staff (in research and academics) and assess the interest level of having a general audience writing consultation service (note: I will accomplish this as I am surveying the faculty/staff about the questions on the proposal). I intend on collecting signatures as I talk with faculty to document the support behind my proposal to board of reagents and additional ideas. My discussions with the faculty will be a continuous process, but I seek to discuss my general audience writing consultation service with at least 50 faculty members within the first 5 weeks of the semester. During this time, I will also draft another proposal, discussing this implementation of the consultation service and website. I will edit the draft, through the help of the aforementioned individuals, and submit a final version to the Office of Research and Economic Development, or the Office of Strategic Communication. I am uncertain regarding what would be the best pre-existing institution/group to display the constitution service. I hope to have a final decision on this between the 5-7th week of next semester.

For the second half of the semester, I will also design the interface for the submission site and what text/descriptions I want to include on the site. I will then consult with members of IT to add the consultation site to a specific website and release it to the university. In the remaining 3-5 weeks of the semester I will publicize the service through the aforementioned channels and hopefully receive the first submissions and work with others students and staff to generate the general audience versions of the technical writing. Finally, I will compose and edit my presentation for the donors.

J. Itemized Budget
Since my project is primarily digital and consists of developing a proposal, website service, etc. I am not anticipating any costs.
The only cost I potentially anticipate is publicity (potentially). However, given the vast amount of existing, free channels to publicize my web service and proposal, and using faculty and staff endorsements for establishing a science engagement center, I do not anticipate any funds being needed for publicity.

III. Conclusion

To build on the work established by LSEI, I seek to submit a thorough proposal to the Board of Regents describing the need for science communication and engagement institution at the University of Iowa. Furthermore, the first service and functionality of this institution would be to continuously offer a service that converts technical pieces of writing to general audience writings essential for broader impact statements of work.