Revising Your Abstract

Your abstract will be publicly available on the Princeton Research Day website as a representation of your work. It serves as an invitation to your talk, poster, or performance for members of the University and wider community. Given the substantial visibility your abstract will receive and the opportunity to connect with a broad audience, we encourage you to take a fresh look at your original submission. Revision is a powerful tool. Here are a couple of things in particular to watch for:

- You may be accustomed to writing for other experts in your field. What’s special about Princeton Research Day is that you have the chance to share your research with listeners from across the disciplines and from outside academia. It can be tough to translate your project, making the methodology accessible and the stakes clear and compelling. You might try testing your abstract on a few readers who aren’t familiar with your research or your field of study at all. You know you’re good to go when they can follow everything you’re saying, their eyes light up, and they say, “That is so cool!”

- You may have submitted your initial abstract when you were still in the early stages of your research project and weren’t yet confident of your findings or the direction of your argument. No problem! But now is a great opportunity to go back and make more explicit what’s special about your angle on the topic you’ve been researching. Be sure your specific and nuanced claim is stated in the abstract, and that the wider stakes of the argument are clear.

Writing Center Fellows are available to meet with you as you work on revising your abstract—or at any point as you prepare for Princeton Research Day. Book an appointment online at https://wriapps.princeton.edu/scheduler/appointments/

Below are two before-and-after examples of revised abstracts from past Princeton Research Day participants. We look forward to yours!

ABSTRACT #1

Original version
Ezra Pound’s Cathay is a book of poems translated from ancient Chinese. Released in 1915, the book produced a behemoth of literary criticism: scholars argue over the accuracy of his translations, the content of his poetry, and whether his works constitute translations at all. More interesting as well was that Pound himself did not translate these poems. A Japanese scholar, Ernest Fenollosa, translated the poems and Pound used his notes to create poetry (think about taking Google translate’s output and making it into poetry—Pound had only rough, dictionary translations of each word). They all agree on one thing, however: Pound produced great English poems.

In my work, I explore the two poems next to each other. I work through what I call a “dialectic of translation,” where the two poems together produce more meaning than either on its own. The
larger questions I explore are about the translation of art: what does it mean to translate poetry? What do you lose? What do you gain? Can somebody who speaks English alone appreciate Pound’s poems to their fullest extent? In an increasingly global society, we must consider how we translate art, and we must consider the effects of our decisions.

Revised version
Ezra Pound's 1915 work "Cathay" is a book of poems translated from ancient Chinese. For Pound, a nonspeaker of Chinese, the Chinese character represented a mode of communication where the reader not only understands the character's meaning but sees it in the writing itself. This understanding of Chinese came from the translations and writings of Japanese scholar Ernest Fenollosa, who believed that Chinese characters are "alive." For example, Fenollosa saw the sentence "man sees horse," as a man standing on two legs in the first character, an eye on two legs in the second character, and a horse on four legs in the third character. Fenollosa believed that this sentence visually presented its own meaning.

This romanticized understanding of Chinese formed the basis of Pound's Imagist movement, where he created poetry through an emphasis on precise visual image. Unlike many Pound scholars who seek to examine either the accuracy of Pound's translations or his Imagist expression, my work addresses two new areas: It examines how Pound's "Cathay" and the corresponding Chinese poems together produce new meaning about central, shared images, and it demonstrates how translation itself is an aesthetic act.

ABSTRACT #2

Original version
All rockets, from Robert Goddard’s first attempts at flight to the Saturn V that propelled astronauts to the moon, have a nozzle at the base that expands the engine’s exhaust to supersonic speeds. Almost every rocket launched to date has employed a conventional bell-shaped nozzle, which operates inefficiently over most altitudes. For my thesis, I am testing an alternative kind of nozzle called an aerospike, which can in theory operate perfectly efficiently over a wide range of altitudes. This has the potential to increase overall propulsion efficiency by a few percent, which is enough to change payload mass deployable to orbit by an enormous margin. The point of a launch vehicle is to carry mass into space, so any gains in payload to orbit improve a rocket program overall. Gains as significant as those that could in theory be provided by an aerospike could revolutionize the space industry – if we can double our payload to orbit (as might be possible with aerospikes), we can send up twice as many communications satellites, Earth-observation platforms, and scientific probes, all by switching out the nozzle on a rocket.

The concept has existed since the 1950s, but very little practical testing has been done with it – as a result, most launch vehicle development programs are hesitant to employ aerospikes. I have sought to expand the literature on the subject and contribute test data using Princeton’s supersonic wind tunnel facilities in the hope that more data might lead to use of an aerospike in flight.
Revised version

Every significant rocket ever launched into space has used the same shape to direct the fire that comes out of the tail—it looks like a bell, and it's inefficient. For a rocket, small inefficiencies translate into greatly enlarged costs in sending stuff to space. Inefficiencies mean it's more expensive to launch the satellites that enable TV broadcasting, weather forecasting, GPS and other technologies that we use every day on Earth. One potentially better replacement for this bell-shaped nozzle is called an "aerospike," which is a concept that has existed since the 1950s, but that has yet to propel any rocket into orbit because of a lack of experimental data to support the decades of theory of its operation. Simply put, it seems that few people are experimenting with aerospikes because few people have before, leading to a cycle in which the development of the concept has stagnated and space companies are unwilling to take on the risk of building this "unproven" technology.

My senior thesis aimed to provide some of that experimental data and renew interest in the aerospike. I have designed two scaled-down rockets, one with the classic bell-shaped nozzle and one with an aerospike, and am using wind tunnels available on Princeton's campus to simulate their launch at twice the speed of sound. The data provided by these experiments will hopefully support the theory that aerospikes can operate more efficiently than bell nozzles and encourage other research and industry groups to use the aerospike on full-scale rockets.