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Research Data Services AUL Search Committee
Stanford University Libraries

To The Research Data Services AUL Search Committee:

As Stanford University moves to create momentum for Data Science across campus and consolidate schools and programs into a new School of Sustainability, one thing is clear: The future research success of Stanford University will be driven by data.

Stanford University Libraries' recent acquisition of Planet.com's "Daily Image of the Earth," which represents operationalized location intelligence where awareness of activities is timely enough to act upon, is only the beginning. New platforms are being announced monthly, and the next few years will see the launch of dozens of commercial satellite platforms, with new capabilities. These new platforms will provide data streams that allow researchers to see through clouds, in the dark, multiple times a day, and with hyperspectral fidelity that can reveal landcover at the species-level. The increasing ability to place analytics on these data sources will provide for novel new research at massive new scales, in all areas: Earth Sciences, Energy, Environmental Studies, Public Health, Civil Engineering, and more. These technologies will also demand new methods and infrastructure from libraries that wish to remain relevant parts of the "shared research infrastructure" of their research universities.

Stanford Libraries' finds itself at the threshold of a revolution in librarianship, not at all unlike that of two decades ago, when SUL leadership took the first steps toward Digital Librarianship. The threshold we stand at is that of the "Data Science Revolution" in academic research, and in every other aspect of life, as well. This coming revolution will require that we transform our understanding of what it is to "do the work" of libraries. While the libraries' place as stewards of knowledge in this new data economy is still being written, the need for the traditional roles of librarianship in curating, collecting, preserving, and making accessible the inputs and outputs of research will not change, but will be drastically transformed in scale and format. What does it mean to curate and

collect data sources that are massive from the outset and continuously growing? How does the rise of subscription-based data access and "data lakes" too vast to take physical possession of, inform the way we license and retain data for research?

Transforming our world-class digital collections and making them available to computational methods must also be a goal of the Research Data Services Division. Leveraging our central roles in technology communities like the International Image Interoperability Framework (IIIF) will be key to delivering on the promise of "Collections as Data" by allowing us to deploy our digital "Collections as Platform." Only by embracing new, and old data, can the new Research Data Services division hope to succeed among all our patrons, whether they seek to understand the changing dynamics of dwindling sea ice from satellite imagery, or the social networks revealed in the hundreds of thousands of photographs in our Bob Fitch Collection.

Stanford Libraries' new Research Data Services division requires someone with the vision and experience to guide Stanford Libraries as a leader in the creation of services and support that remove barriers to the data and technology that our evolving schools and programs will require. I am deeply committed to transforming the Stanford Libraries' role as a research partner to our patrons, both with the curation, collection, and provisioning of high value data assets as they become newly available in the marketplace, as well as to the transformation of our existing collections and practices through data science.

With over 17 years of experience working with, operationalizing, and making accessible the complex and massive stores of data that have driven the "Geospatial Revolution" in academic research, I'm well positioned to see the opportunities for Stanford University Libraries to succeed in the new "Data Science Revolution" we will witness over the next decade. From applying novel methods of discovery and access to the 200k+ images in the Library of Congress' FSA-OWI Photography collection by revealing latent metadata with photogrammar.org, to deploying performant services for geocoding and network analysis for research data augmentation, I've been building, maintaining and supporting the use of research data, at scale, for nearly two decades.

Perhaps my greatest strength, is my conviction that these tools are not beyond the reach of anyone, or that if they are, they simply haven't been presented correctly, yet. For the entirety of my career, I've been building programs that convey the research data literacy skills required of users who want to leverage cutting-edge technologies and complex data in their work. Quickly building a brand for the new Research Data Services division, and advocating for our expertise in

acquisition, licensing, provisioning, and support for the use of new data resources across the University will be an important early task for the person chosen in this role and will require knowledge of the "data science landscape" at Stanford, as well as the ability to communicate with diverse stakeholder audiences, to be effective. My ability to tailor materials and message to the skill-levels and needs of audiences, from student researchers to administrators, is well represented in the success of the Stanford Geospatial Center's reputation as "shared research infrastructure' at Stanford.

I am completely committed to the success of the Stanford University Libraries as a major, and recognizable, player in the creation of Stanford University's "shared research infrastructure," and look forward to building the world-class example of librarianship in the 21st Century that I believe Stanford Library's new Research Data Services division, can be. Thank you for your consideration, and I look forward, as always, to the rich and enlightening discussions that are to come.

Sincerely,

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