Campus Champions: A community of practice around research computing and data

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ABSTRACT

The digital research landscape has changed dramatically over the years as campuses across the nation have gained access to local research computing resources and services. The Campus Champions program [1] has evolved to accommodate and support the diversity and growth of the research computing and data community. Sustained funding from the National Science Foundation (NSF) via the eXtreme Science and Engineering Discovery Environment (XSEDE) [2] has enabled the Campus Champions program to carry out its mission: *to promote and facilitate the effective participation of a diverse national community of institutions in the application of advanced digital resources and services to accelerate scientific discovery and scholarly achievement.* Currently, the Campus Champions leadership is working to identify opportunities to sustain this important program that supports campus cyberinfrastructure and fosters a thriving community of practice [3] with nationwide impact.

KEYWORDS

Community of practice, Workforce development, Research computing, Data, Cyberinfrastructure, Sustainability

A COMMUNITY OF PRACTICE

The Campus Champions are a flourishing and evolving, one-of-a-kind community of practice within the national research computing ecosystem. They are peer mentors and facilitators navigating a digital research landscape that has changed dramatically over the years. The Campus Champions' mission has been made possible by the National Science Foundation (NSF)-funded Extreme Science and Engineering Discovery Environment (XSEDE) program. The Campus Champions program was founded in 2008, as part of the NSF TeraGrid CI project, and in 2011 was incorporated into TeraGrid's successor, XSEDE. With the end of existing funding approaching, efforts are underway by Champions leadership to work towards a sustainable future for the community. The Campus Champions program, at current state, is composed of over 550 research computing professionals at over 280 academic and research institutions from every US state and several US territories, including every EPSCoR jurisdiction. Campus Champions are employees or affiliates of academic and non-commercial research institutions, coming from a broad range of roles and disciplines, across all levels, including Cyberinfrastructure (CI) center directors, faculty, researchers, systems administrators, user support specialists, IT staff, researcher-facing professionals, and students. A Campus Champion's role is to help researchers, educators, and scholars at their institutions make the most of their computing-intensive and data-intensive research.

The Campus Champions program provides professional development resources that benefit both Champions and their institutions. Programming includes ad hoc presentations from subject matter experts, with topics ranging from systems-focused technical discussions, available resources (XSEDE and non-XSEDE alike), software, education/faculty-focused topics and grant proposal writing. Campus Champions may apply to an engaging and challenging Fellowship program that pairs selected Champions with exciting projects and expert mentors from the XSEDE Extended Collaborative Support Services (ECSS)[4] program. Those with advanced expertise in a specific discipline may serve as a Domain Champion, providing guidance to researchers in their disciplines or domains. The program also provides workforce development opportunities by encouraging individuals early in their academic career to participate as Student Champions, mentored by an active Champion on their campus. The student experience can vary based on mentor and institution and activities may include providing outreach and user training on campus to help users access local or national computational resources. Student Champions are also encouraged to attend and participate in the annual PEARC conference.

The Campus Champions, as a community of practice, peer mentor each other and share information, best practices, tools, experiences and technical expertise, including but not limited to: asking and answering questions on an active mailing list, sharing individual or institutional expertise on a variety of topics, participating in technical and educational videoconferences, as well as face-to-face meetups at regional and national conferences such as PEARC and the SC supercomputing conferences. In 2018, the Campus Champions program marked a major milestone: the celebration of the program's tenth anniversary. The community also welcomed its first fully elected leadership team in the summer of 2018, providing an opportunity for individual Champions (a) to gain valuable leadership and strategic planning skills, while (b) making an impact and giving back to this exceptional community.

CONCLUSION

The Campus Champions program has enjoyed tremendous growth, almost doubling in size over the last few years, mirroring the explosion of computational and data-enabled research and scholarly work across domains and underscoring the need for and value of this community of practice within the professional field of research computing. The Campus Champions community has established themselves as the intersectional footprint of national research computing and data professionals and continues to foster new connections between researchers, systems, and expertise, but also to nurture a cross sectional community of practice whose value is greater than the sum of its parts.

ACKNOWLEDGMENTS

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