

CAIA BIG EVENT

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COLLEGE OF AGRICULTURE AND LIFE SCIENCES
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Abstract Submissions

Abstract Title: CyberBioSecurity through Leadership-as-Practice Development

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350-word Abstract: CyberBioSecurity is an emerging field at the interface of life sciences and digital worlds (Murch, 2018). The solution to the global cyberbiosecurity challenge is not merely technical; society needs cyberbiosecurity professionals who engage in leadership with a boundary-crossing approach that involves collective effort. Such an approach emerges from leadership-as-practice development (LaPD), characterized by its efforts to “change patterns and thinking that could transform a culture of mediocrity to one of excellence and resilience” (Raelin, 2020, p. 2). While LaPD has been used in some professional learning contexts and it aligns with some signature pedagogies of the professions, the opportunity remains for embedding LaPD in graduate education to meet the needs of emerging fields. The objective of this proposed project is to catalyze transformative cyberbiosecurity graduate education in a way that increases cognitive integrative capability among cyberbiosecurity scientists and professionals. As noted by Pratch (2014), “leaders who possess integrative capacity are better able to assess problems and find workable solutions than those who do not” (p. 1). In this project, we intend to embed LaPD in online graduate and train-the-trainer modules, testing various pedagogies associated with boundary-crossing graduate education. The approach will include use of collaborative leadership learning groups (CLLGs), which are “anchored in practice, bringing together learners who can identify and work together on the challenges they face collectively” (Denyer & Turnbull James, 2016, p. 269). Our specific research questions include:

What signature pedagogies best support the emerging discipline of CyberBioSecurity education?

To what extent do collaborative leadership learning groups (CLLGs) increase students’ cognitive integrative capability?

This project is currently pursuing federal funding.

CAIA Research Platforms of Relevance to the Project: Cyberbiosecurity and Biosecurity in Agriculture and Life Sciences

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Key External Partners and Relevant Stakeholders: