Stimulating Creativity by Integrating Research and Teaching Across the Academic Disciplines

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Creativity is a human adventure fueled by the process of exploration. But how do we explore our intellectual interests? In this talk, I'll propose that we seek out our creative opportunities using an inherent natural process. This process might, therefore, exploit search strategies found across diverse natural systems – ranging from the way animals forage for food to the way the human eye locates information embedded within complex patterns. The symbolic significance of this hypothesis lies in its call for educational institutes to provide environments that encourage our natural explorations rather those that stamp restrictive, artificial ‘order’ on the process. To make my case, I'll review some of my own research trajectories followed during my RCSA Cottrell Scholarship at the University of Oregon (UO). My first conclusion will be that it is fundamentally unnatural to declare divides across disciplines. In particular, the infamous ‘art-science divide’ is not a consequence of our natural creative searches but instead arises from our practical inability to accommodate the rapid drive toward academic specialization. Secondly, divides between research and teaching activities are equally unnatural – both endeavors are driven by the same creative strategy and are intertwined within the same natural process. This applies equally to the experiences of professors and students. I will end with specific success stories at the UO. These include a NSF IGERT project (focused on accelerating students’ transitions from classroom to research experiences) and a collaboration between architects and professors to design a building (the recently opened Lewis Integrative Science Building) that encourages daily encounters between students and professors across research disciplines.