Contributing more than research!
Mapping DCDC’s Community of Graduate Research Students (CGS)
Katja Brundiers, DCDC, ASU; Bethany Cutts, SOLS, ASU; Edgar Cardenas, SOS, ASU; Brian Pompeii, Dorothy Ibes, Stephanie Deitrick, SGSUP, ASU

Goal of the project is to present the interactive and interdisciplinary character of DCDC as evident in CGS

1) Network visualization supports interdisciplinary exchange among students regarding topics, methods, theoretical approaches, and institutions

- NSF defines Inter-Disciplinary Research (IDR) as a research mode integrating data, techniques, tools, concepts, and/or theories from multiple disciplines to advance understanding or to solve problems whose solutions are beyond the scope of a discipline or area of research practice.

- Students can use the mapping method: (1) to make connecting points visible; (2) to discuss them without the challenge of integration, yet transforming their information into knowledge; (3) to indicate collaboration (regarding content, institution).

2) Students’ research networks can pave the way for faculty to explore and foster connections across disciplinary and institutional boundaries

- Students are portrayed as connectors and innovators, facilitating IDR among faculty. To be effective in this role and rewarded for their effort, students need to be empowered and put in charge by faculty.

- Students can use the mapping method (1) to substantiate their proposals for connections; (2) to develop contacts for their own career; (3) to manage the emerging network and keep track of its dynamics.

3) Networks are drivers for students career visions

Building on core concepts of ASU’s New American University, CGS strive

- to conduct use-inspired basic research that is relevant to both, to science and society (c.f. Pasteur’s Quadrant, Stokes, 1997);

- to develop the knowledge and skills necessary to work at and across boundaries of science and society (c.f. Boundary work, Guston, 2001).

Consideration of use? No Yes

Quest for fundamental understanding?

<table>
<thead>
<tr>
<th>Pure basic research (Bohr)</th>
<th>Use-inspired basic research (Pasteur)</th>
<th>Pure applied research (Edison)</th>
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Future network mapping

An interactive web-based bio would be beneficial, because it

- allows you to select the type of relations to be visualized
- displays IDR in a relational perspective, providing an overview
- discloses text-based background information, explaining the nodes in a network, available only when clicking on the interactive blurbs
- offers additional side effects that the CGS as well as student-supervisor teams can adopt and use for their own purposes
- could be extended to other DMUUs to intensify existing (e.g. students conferences) or identifying useful new forms of collaboration

References