

## Best Practices from the CCTA: Centers Collaborative for Technical Assistance

The National Science Foundation's Advanced Technological Education (NSF ATE) program focuses on the education of technicians for the high-tech fields that drive the nation's economy. The faculty members of community colleges, which are the main source of technician education in the United States, have leadership roles in the initiatives that involve partnerships with industry and other educators. Since 1994, NSF ATE initiatives have developed a wide-range of innovations to better serve students and inform educators.

Five NSF ATE centers formed the Centers Collaborative for Technical Assistance (CCTA) in response to a Department of Labor request to NSF for technical assistance services to recipients of Trade Adjustment Assistance Community College and Career Training grants. The five centers are National Center for Convergence Technology (CTC), South Carolina ATE National Resource Center (SCATE), Florida Advanced Technological Education Center (FLATE), Bio-Link National Center (Bio-Link) and Maricopa Advanced Technological Education Center (MATEC). The identification and sharing of NSF ATE best practices are among the services CCTA offers.

# COMMUNITY OF PRACTICE

A Community of Practice is a group of people who share a concern or a set of problems. Participants agree informally to form a community because of their shared interest about a topic and their desire to deepen their knowledge and expertise in this area by interacting on an ongoing basis.<sup>1</sup>

## COMMUNITY OF PRACTICE OBJECTIVES DEFINED

A Community of Practice is defined by its domain of knowledge, idea of community, and notion of practice:

- A domain of knowledge creates the common ground around which members meet. It inspires members' active participation, guides their learning, and gives meaning to their actions.
- The idea of a Community of Practice creates the social fabric for learning. A strong community fosters interactions and encourages sharing of ideas.
- The notion of practice is the specific focus around which the community develops, maintains, and shares its core of knowledge.

A Community of Practice:

- forms organically from shared interests and collective intentions, not because of short-term project or profit goals;
- draws energy from the informal goals of members;
- utilizes the knowledge of active practitioners who have expertise in the topic, but are not necessarily experts; and
- exists as long as the members believe they have something to contribute to or gain from the Community of Practice.



People in a Community of Practice share interest in a topic; seek deeper knowledge of the topic for academic or career goals; and engage in collective, intentional community interactions.

**AT ITS HEART, A COMMUNITY OF PRACTICE HAS  
A SHARED IDENTITY AND COLLECTIVE INTENT.**

# WHY COMMUNITIES OF PRACTICE MATTER

"Knowledge has become the key to success. It is simply too valuable a resource to be left to chance ... Cultivating communities of practice in strategic areas is a practical way to manage knowledge as an asset ... the explosion in science and technology creates a difficult paradox. At the same time that the increasing complexity of knowledge requires greater specialization and collaboration, the half-life of knowledge is getting shorter. Without communities focused on critical areas, it is difficult to keep up with the rapid pace of change."<sup>2</sup>

## DISTINCTIVE GROUP QUALITIES

Group Characteristics	Communities of Practice	Project Teams	Communities of Interest
Starts Organically	✓		✓
Informal Goals	✓		✓
Defined by Members' Knowledge	✓		
Driven by Members' Shared Passion for Topic	✓		✓
Driven by Deliverables		✓	
Members' Participation Due to Healthy Self-Interest	✓		
Members Actively Participate in Field, Though Are Not Necessarily Experts in It	✓		
Members' Participation Defined by Their Roles or Tasks		✓	
Membership Includes Practitioners and Amateurs			✓
Members Support Each Others' Learning	✓		✓
Dissolve or Are Repurposed When Deliverables Done		✓	
Continue as Long as Members Have Something to Contribute or Gain From It	✓		

## COMMUNITIES OF PRACTICE AFFILIATED WITH ATE CENTERS

Florida Advanced Technological Education Center of Excellence (FLATE)  
Engineering Technology Forum: [fl-ate.org/programs/e-t-forum/](http://fl-ate.org/programs/e-t-forum/)

National Convergence Technology Center (CTC)  
Convergence College Network: [connectedtech.org/educators/convergence\\_college\\_network.html](http://connectedtech.org/educators/convergence_college_network.html)

The Southwest Center for Microsystems Education (SCME)  
Micro Technology Community: [scme-nm.org/moodle/course/index.php?categoryid=16](http://scme-nm.org/moodle/course/index.php?categoryid=16)

2. Wenger, Etienne, Richard McDermott, and William M. Snyder, Cultivating Communities of Practice, Harvard Business Press, 2002.



For more information, contact:

Christina Titus, Program Director at [ctitus@collin.edu](mailto:ctitus@collin.edu) or 972.377.1786  
Ann Beheler, PI at [abeheler@collin.edu](mailto:abeheler@collin.edu) or 972.377.1649

This material is based upon work supported by the National Science Foundation under Grant No. 1205077. Any opinions, findings and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

