

MATEC NetWorks II: Annual Report

DUE # 1104159

Time Period: September 1, 2011 through June 2, 2012

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Project Activities

Research and Education Activities:

The MATEC NetWorks National Resource Center II (DUE #1104159) continues the work of prior funding for the MATEC NetWorks National Resource Center (DUE #0501626.) There is an overlap in time for some of the activities since the DUE #0501626 grant ends June 30, 2012 and the DUE#1104159 grant was awarded in September 2011 and accepted by the Maricopa Community College Governing Board on October 25, 2012. In order to distinguish the activities associated with the two grants this annual report will focus only on the formative aspects of the Networks II grant (DUE #1104159,) that have occurred in the November, 2011 – April, 2012 time frame; the first six months of the effort.

The Center's effort is characterized by four main goals. They are listed below with objectives and activities and results to date as appropriate.

Goal 1: Expand the contribution to and usage of the Digital Resource Library by the education community. This goal is focused on developing an enhanced *Collection of Digital Library resources and services.*

Objective 1.1: Expand and refine the current collection of resources.

Activities and Results: a major effort was completed in partnership with ATE Central and the University of Wisconsin, Madison to upgrade the Digital Library software to the current version of the Content Workflow Integration System (CWIS.) IT staff at NetWorks, IT staff at the Maricopa Community Colleges and a consultant solved a variety of upgrade issues resulting in a digital library with more secure access and enhanced user features. Over 100 new resources have been submitted by users since the conversion was complete in March of 2012.

Objective 1.2: Develop collections of specific resources designed for faculty to use to enhance student learning; i.e., toolkits in defined content areas.

Activities and results: none to report

Objective 1.3: Create a collection of resources for student access and use within a “Student Resource Center (SRC)” portal.

Activities and Results: eight faculty members acting as “Regional NetWorks Associates” have met and have begun to develop examples of resources that may be suitable for the SRC. It has been challenging to identify the resources that will have the most added value to both faculty and students. Preliminary ideas have been developed that include: running a vacuum equipment simulation, operating a virtual oscilloscope, accessing a set of data to analyze and display in graphical format. In addition preliminary specifications for the SRC portal have been developed.

Goal 2: Establish effective approaches and programs for broadly disseminating learning material and faculty professional development. This goal is focused on *Dissemination*.

Objective 2.1: Produce annual Web seminar (Webinar) series.

Activities and Results: The NetWorks Webinar series directly addresses faculty needs in a delivery format that suits their requirements. As a result, faculty are more current in technology and up-to-date in pedagogical approaches. In addition, the Webinars provide a rich set of resources to the Center and build the user base for the Center’s services. Each Webinar is recorded and this recording becomes a viewable resource in the NetWorks Digital Library. The webinar series began with the DUE#0501626 grant and it is assumed the webinar activity through March 2012 was initiated and captured under that grant. For reporting purposes for DUE #1104159 from April 1, 2012 to the date of this report, June 2, 2102, three major webinars were produced:

- Earning Credentials
- From STEM to STEAM
- Bridge to Technology

Objective 2.2: Provide collaborative Webinar hosting services.

Activities and Results: Webinar hosting requires considerable collaboration and actually builds capacity of other projects to disseminate their products/info. In providing this service, NetWorks helps shape a “system” of ATE Webinar programs. In the reporting period, April – June 2012, webinars have been hosted for the Evalu|a|t|e center, The NACK center and the SCME center.

Objective 2.3: Utilize Web 2.0/3.0 and social media tools to increase awareness and expand communities of users.

Activities and Results: none to report

Objective 2.4: Conduct in-person dissemination activities.

Activities and Results: NetWorks participated in a joint ATE center exhibit at the American Association of Community Colleges annual meeting in April 2012. This face-to-face interaction allowed NetWorks to disseminate material in a personal way to a targeted demographic. It allowed networking connections to be established and/or strengthened in a more direct and thorough manner.

Goal 3: Accelerate the ability of the national technician education community to adapt as technologies and learner needs change. This goal is focused on *Advancement of technician education.*

Objective 3.1: Involve the education and industry communities in assessing and responding to technician education needs.

Activities and Results: Eight faculty members have been established as “Regional NetWorks Associates (RNAs)” to expand the established community of active users who provide knowledgeable feedback and thoughtful identification of trends to increase usage and impact of the Resource Center. Each RNA will:

1. Review NetWorks’ Website on a quarterly basis and provide feedback on resource accessibility and content.
2. Undergo training for submitting resources, including criteria for resource quality and acceptability, and to instruct others in developing and submitting resources.

3. Examine NetWorks resources and assign ratings for quality and value.
4. Provide advocacy within the region by developing and managing a Regional NetWorks Resource Team.

Objective 3.2: Produce the Critical Issues and Best Practices (CIBP) Forum.

Activities and Results: The forum has been scheduled for July 23, 2012 in association with the HI-TEC conference in Denver, CO. 34 faculty from around the country have been selected for participant support through a rigorous fellowship application process, <http://www.matecnetworks.org/cibp/>. The forum will present the most pressing issues for technology educators and best known methods to address these issues. In addition the forum will provide particularly useful information to NetWorks about the needs of its user community and provide recommendations to help shape NetWorks programs and services in the future.

Goal 4: Identify and apply appropriate frameworks for evaluation. This goal is focused on discovering genuine impact of NetWorks' activities on improving student, faculty and industry learning.

Activities and Results: an evaluation plan has been created by Dr. Badway, the external evaluator and is attached as an activities file.

Project Findings

In the first six months of the grant activities the major findings have arisen as a result of the meeting of the center's National Visiting Committee. The full report of the March 2012 meeting is attached as a Findings file. In summary: the committee commented that NetWorks builds on successful prior work with a solid understanding of BOTH industry and educational settings. The center has embraced the digital library paradigm from its earliest days and has gained from its interaction with the community of ATE resource centers.

The elements of the center appear to build on each other and are solidly interconnected. This will help drive the project and its evaluation in a very cohesive way. NetWorks' focus on community building is strong and the Critical Issues and Best Practices Forum is a good

model for obtaining stakeholder input and feedback. The committee felt the NVC meeting was well structured and organized.

General Comments and Recommendations

- Personalize the website by “audience” – this will help with engagement.
- The center should recognize the distinction between a *browsing* and a *searching* user experience. Some users prefer one method over the other and NetWorks should be able to address both preferences.
- Make it clear to industry how they can interact with, inform and help the center’s initiatives. Be very specific in the request(s).
- In view of the grant time period (now two years instead of the four originally requested), clearly prioritize the activities for the student resource collection; i.e. the balance of effort spent on interface development versus collection development.
- Possibly get video “testimonials” from faculty who have used these resources/webinars and for whom it has been productive.
- Potentially get feedback from students (through a student advisory board) about how to better measure learning impacts – consider how students judge learning impact in their own situations.
- The webinars are critical to the marketing and dissemination effort for the center as a whole due to the large scope and large number of participants involved.
- The Resource Tool Kits constitute a very strong concept. The NVC believes this is important and a value-add to the resource collection.