From Soup to Nuts: Business Engagement to Benefit Students

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Setting the Context

- National Convergence Technology Center
  - Advanced Technological Education (ATE) Center with National Science Foundation (NSF)
  - Based at Collin College, Frisco, TX 2004 forward
  - Primarily in the area of networking infrastructure/mobility/data communications
Business and Industry Leadership Team

- CTC has tight integration with businesses
  - They lead
  - Not just advisory
  - Positive benefits for students throughout life of programs supported by NSF projects, Regional, and National Center
National Convergence Technology Center

- BILT Processes developed under the Regional Center for Convergence Technology
  - Used for National Center
  - Used for DOL TAACCCT grant with 7 partners
- Approach with businesses applies to creating/maintaining/reinvigorating any technology program
Our Current Goals

• Create convergence degrees and certificates driven by business need
• Provide professional development for faculty
• Recruit and retain underserved students
• Disseminate products and services such as BILT process, curriculum, etc.
The Typical Business Advisory Council

- Meets 1 or 2 times per year, sometimes the only time the reps are on campus
- Mixed level of knowledge in membership
- Advises regarding a program, sometimes just reviewing rather than leading
- BAC members often find their time split between regional colleges because each college has its own council
Typical Result for Businesses

- May be more of a “rubber stamp” relationship
- May or may not be truly engaged
- May or may not be people at the right level to really help with your program
Suggested Engaged BILT Model

- Business and Industry *Leadership* Team (BILT)
- Regional Council (or even national) advising multiple colleges
- Meets quarterly, not 1-2 times per year
- Right people on the council
  - High-level technical executives
  - First line managers
  - Technicians
  - HR representatives as long as they are not the sole reps for a company
More than an Advisory Council

- Businesses LEAD the work and are part of the leadership team
- Appropriate name is Business & Industry Leadership Team (BILT) – Leadership, not Advisory
Frequency of Engagement of BILT members

- Quarterly meetings, 1 face to face, 3X via webinar
- Less than quarterly can mean “out of sight, out of mind”
Overview of Engagement

- Trends identified before need for skills to support the trend (allows time to develop curricula) - BILT owns curriculum
- Solid process, business-driven, to determine Knowledge, Skills, and Abilities needed from graduates (faculty determine how to address KSAs)
- Forecast need for future employees
- Involvement in recruitment events
- Involvement in professional development for faculty
Role of the Engaged BILT, Con’t

- Provide internships for students
- Provide externships/job shadowing for faculty
- Guest speakers
- Co-author whitepapers
- Evaluate capstone presentations
- Participate in panels at conferences
Engaged BILT Results in JOBS for students!!

Graduates have been hired for:

• Applications Integration Specialist
• Helpdesk Support
• IT Support
• Mobile Support
• Network Analyst
• Network Engineer
• Support Engineer
• VoIP Technician/ Specialist
Quite simply:

An Engaged BILT...

...owns your technical program
A BILT Member’s Experience

- Tu Huynh, Vice President, Comerica Bank
- Why are you involved with the BILT?
- How long have you been involved with the BILT?
- How is the BILT different from an Advisory Committee?
- What sorts of things have you done as a BILT member?
A BILT Member’s Experience

• How has the BILT vs. the Advisory Approach made a difference?
• What is a virtual internship, and why is it important?
The National BILTs Support Student Success

The National Information, Security, and Geospatial Technologies Consortium (NISGTC), a U.S. DOL TAACCCT Grant, has four BILTs that meet quarterly to guide the work of the consortium in four IT specialty areas: Programming (including Mobile Apps, Database, Business Intelligence), Networking and Convergence Technology, Cybersecurity, and Geospatial Technologies. The NISGTC BILT model is based on the work of the NSF Convergence Technology Center's (CTC) BILT that has guided the work of that Center for over 10 years. The BILT defines the knowledge, skills, and abilities business representatives want to see in future graduates and assists the colleges in numerous ways including student recruitment and hiring, class presentations and keynotes at conferences, traditional internships, and now virtual internship/externship experiences using business mentors.

National Convergence Technology Map

BILT Members Give Their Perspectives

VIDEO: Click on the play button to the left

VIDEO: Click on the play button below
BILT Virtual Internship and Externship

Experience gained from traditional internships benefits students by exposing them to real-world work. However, busy college students realize barriers to completing an internship, and opportunities may not be available at the time the student qualifies for such an experience. The National CTC and NISGTC has developed a virtual internship/externship to help overcome these obstacles. A virtual internship/externship comprises a team of students who design a solution to a real world problem or case study under the guidance of a business mentor. The mentor interfaces with the team four to five times throughout the semester via webinar. During these sessions, the business mentor helps the students and their faculty leader to design, document and implement a solution. The experience culminates in a face-to-face business panel review of the students’ presentation describing how they solved the business problem.

Meet the Students
VIDEO: Click on the play button below

Visit us online at:
NISGTC - www.nisgtc.org
CTC – www.connectedtech.org

NISGTC Map

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Applying BILT Principles to Existing Business Program

Program is likely already institutionalized
  • Faculty are already educated to teach
  • Courses are already scheduled
  • Certificate and degree patterns already approved
  • Could your program benefit from more engagement?
For a new program, begin with business demand

- Start with the business need
- If there is no validated need, then there is no need for your proposed program
- Regional business need to own the program
How to Build or Reinvigorate an Engaged BILT

Education is a business, and there are consumers for our product: our graduates.

• Businesses
• Industries
• Governments agencies
• Non-profits
• Universities
Target Membership

Determine which businesses, industries, agencies, non-profits, and universities should be represented

• Distribution of size and type
• Not just large companies; medium and small companies provide perspective and are likely to hire as well
Determine Your Expectations

- What do you want to get from the BILT?
- Develop “sales” script for recruitment
- Establish expected time commitment per quarter (typically 1.5 to 2-hr call, face to face annual meeting for curriculum adjustment plus optional other events)
Establish Expectations For Involvement

- Job skills validation – detail the process
- Course and curriculum validation/modification
- Job forecasting- anecdotally and through surveys
- Internships
- Job shadowing/externships
- Providing expertise in set-up and operation of labs
Expectations (continued)

- Donating equipment or other resources
- Providing speakers at student, public and education events
- Helping with recruitment
- Teaching Case Study courses
- Mentoring students

Bob Wright with Mary Patton, the CTC’s first graduate.
Mary, a Sr Support Engineer, is now a member of the Case Study Business Panel, critiquing capstone presentations.
Engaged Business Requires High-Touch not Mass Mailing

- Requires personal contact, not mass mailings or mass emails.
- Target businesses and industries, universities and agencies that hire people with the job descriptions representing your curriculum
Getting the Right People

Contact the President of the company or university

• Share your vision of what the program can mean to the region.
• Explain the importance of the company’s having a subject matter expert, usually first-line manager, involved in the BILT. (SME required; HR representative optional)
Emphasize Win-Win for the Business

- Not just an expectation to contribute
- Opportunities to:
  - Share trends in a non-proprietary environment
  - Network with other professionals in the industry
  - Build pipeline of “right-skilled” future employees
After the Initial Recruitment

- Schedule the meeting well in advance, and follow up with reminders
- Time – early morning typically works better, before BILT members go to the office
- Refreshments – not elaborate, but important to have, especially early in the morning
Characteristics of an Engaged BILT Meeting

- Invite all faculty to attend the meetings as observers to gain their buy-in as to what the BILT wants

- Publicity – invite college and local reporters/writers
The BILT Meets

- Explain how important they are to the program and what their companies will get from their involvement
- Clarify roles and responsibilities between BILT and educators (educators are there to listen, not to present or run the show)
- Explain need for quarterly meetings and establish dates for the year if possible
Other aspects of the BILT meeting:

- Ask for Trends – what’s “hot”, where hiring is expected, etc.
- Review opportunities for helping from your “sales script”
- Stick to the agenda and keep discussion rolling, limiting those who might want to dominate
Other aspects of the BILT meeting

- Acknowledge the importance of their time by starting and stopping on time regardless of whether or not your agenda is complete.
- End early if you have what you need. End on time at all costs. You can always complete your work on email.
- Take minutes; publish them; have next BILT approve them.
BILT recognition

- News releases/articles
- Photos and bios on your web site
- Thank your emails (personal, not mass emails)
- Thank you letters to the President and their bosses
- Certificates & Plaques

If you can support them
Keeping the BILT fresh

- At least one new member each quarter and introduce them
- Talk with each member individually at least annually to ask them what they think you could do differently to obtain more from them or the entire BILT
Benefits from following this approach

- Business ownership of your curriculum and your program in general is more than just compliance with rules
- High interest in hiring your students above other applicants because they know what your students know
- Faculty recognize and understand business requirements first-hand
BILT Provides Labor Market Demand

- BILT and others are surveyed every 2 years to determine demand for graduates with the new skills
- Partner with regional non-profit, Interlink, that works with businesses and educational entities in the region
BILT Supports Professional Development

- Businesses often provide tracks for week-long professional development through CTC – preps faculty to teach new courses
- Example: Working Connections Institute each summer and winter
  - Summer Working Connections – Texas, Wisconsin, Florida
  - Winter Working Connections - Texas
BILT Members Help with Student Recruitment

- Requires gentle pressure, relentlessly applied, especially if new program is arising from a discipline that has been depressed (such as IT in the early 2000s)
- Having businesses present and presenting strengthens the “ask”
How to get started

- The National CTC has a mentoring program called The Convergence College Network (CCN) that provides free
  - Curriculum
  - Recruitment materials
  - Professional development

PLUS
Human support to implement your programs
32 Convergence Colleges in Network (in 15 states)

- Anne Arundel Community College MARYLAND
- Calhoun Community College ALABAMA
- Century College MINNESOTA
- City College of San Francisco CALIFORNIA
- Clark State Community College OHIO
- Cleveland Community College NORTH CAROLINA
- City College of San Francisco CALIFORNIA
- Diablo Valley College CALIFORNIA
- Eastern Florida State College FLORIDA
- Ferris State University MICHIGAN
- Florida State College at Jacksonville FLORIDA
- Fox Valley Technical Institute WISCONSIN
- Guilford Technical Comm. College NORTH CAROLINA
- John A. Logan College ILLINOIS
- Lansing Community College MICHIGAN
- Louisiana Delta Community College LOUISIANA
- Milwaukee Area Technical College WISCONSIN
- Metropolitan Community College NEBRASKA
- Northwest Vista College TEXAS
- Ohlone College CALIFORNIA
- Orange Coast College CALIFORNIA
- Ozarks Technical Community College MISSOURI
- Polk State College FLORIDA
- Porterville College CALIFORNIA
- San Jacinto College TEXAS
- Santa Ana College CALIFORNIA
- Seminole State College FLORIDA
- Tallahassee Community College FLORIDA
- Tarrant County College TEXAS
- Waukesha County Technical College WISCONSIN
- Wiregrass Georgia Technical College GEORGIA
- Wisconsin Indianhead Technical College WISCONSIN
Convergence College Network
What the CTC provides

- Access to network of 32+ colleges to share best practices
- Job Skills List that has been regionally validated
- Process and help for validating skills in mentored college region
- Degree and Certificate Patterns
- Curriculum in a box for new courses
- Detailed syllabi with learning outcomes
- Learning/Lab Activities
- Assessments
- Case Studies
What the CTC provides

- One or more people to assist you in implementation
- Training for faculty through summer institute
- Help in determining equipment needs
- Recruitment plans and event details
- Possible partial financial support for travel for professional development
Convergence College Network (CCN) College Commitment:

- Equipment and support for a lab (varies by depth and breadth of programs needed in your region)
- Lead faculty member
- Other faculty interested in being trained and in implementing the program
- Faculty and administrative time available to work with CCN college representatives
- Active and involved Business & Industry Leadership Team (built with CTC help)
Convergence College Network (CCN)

College Commitment:

- Lead job skills validation with local Business & Industry Leadership Team
- Plan to develop and implement a degree and/or certificate plan based on validated skills
- Develop and implement a student recruitment plan
- Participate in CCN webinars
- Provide brief, quarterly reporting to CTC
The future...looks Mobile and in the Cloud

Applications available:

- Here
- By downloading the form off our website
- Giving us your card
For more information:

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