

National BILT Meeting Minutes
“Mega-BILT” Trends Discussion

MEETING DATE: Thursday, October 8, 2026	MEETING TIME: 10:30am-11:30am Eastern	MEETING PLACE: Zoom
RECORDER: Mark Dempsey	RECORDING: Available upon request	PREVIOUS MEETING: AI Literacy vote meeting – August 25, 2026

MEMBERS PRESENT

BILT:		
Scott Andersen	Jess Irwin, Collins Aerospace	Lee Rosenfeld, McGraw Hill Education
Stacy Brandenburg, Hye Tech Network and Security Solutions LLC	Corey Kirkendoll, 5K Technical Services	Srinivas Sandiri
Vincente D’Ingianni	Sree Muktevi, YASH Technologies	Janette Suarez
Viggo Forde, Snohomish County	Lynne Reynolds, Milestone Technologies	Kim Yohannan, MongoDB
Bob Hitchins, Fidelity National Financial	Mark Richter	
NITIC staff: Ann Beheler, Mark Dempsey, Christina Titus, Stephanie Schuler, Alie Hernandez, Andie Bonkowske, Grayson McKeown, Debbie Hecht		

Agenda items	Discussion
NITIC and BILT overview	Mark welcomed the group, explained the rules of engagement, and provided an overview of the NITIC grant. He explained that today’s meeting will discuss the current state and future trends of the IT industry. Mark further told the BILT members that their anonymized feedback will be widely disseminated by NITIC to educators nationwide. He also mentioned a recent survey of BILT members (n=30) that reported high levels of satisfaction with the experience – NITIC will try to do more to show BILT the impact of their work. Ann provided an overview of the BILT (Business and Industry Leadership Teams) model. BILTs are energized business advisory councils that employ structured, repeatable processes. By putting employers in a co-leadership role, BILTs help align curriculum to workforce needs and build relationships between educators and employers. There are two kinds of BILT meetings: multi-discipline trends meetings like this one and specific single-discipline meetings that allow for prioritization of granular entry-level job skills.
Trends: What knowledge and skills should every entry-level IT graduate possess, regardless of the specific IT position they enter? (Not just AI skills)	Ann posed her first open-ended discussion question to the BILT group: <u>What knowledge and skills should every entry-level IT graduate possess?</u> One employer emphasized the value of critical thinking skills to better solve problems on the job. Secondary to this is the ability to leverage AI tools. This employer recommended finding ways to teach AI resources alongside critical thinking. He likened it to an automobile program – students learn how to diagnose problems and make repairs on all cars. They are not learning on a specific model or year. They learn how to use the mechanic tools to do the job, which is how he’d like students to learn how to use AI tools. AI needs to be a “longitudinal” part of every course, just as communication and critical thinking are a part of every course. When Ann noted that AI tools seem to change much faster than automobile tools and technology, the employer agreed. Today’s AI tool may be totally different in six months. He advocated teaching

the “logical level” and understanding the requirements of the task. What does it take to implement an internal business application? What does it take to implement an external-facing point-of-sale system? If students can understand those technical basics, have a familiarity with how to leverage AI tools, and then also apply critical thinking skills, they will know enough to evaluate the problem or the solution.

From the chatbox: “I'd also add resourcefulness: making a real attempt to find answers before asking for help (self-directed learning). This is easier today with AI assistants and AI search platforms, but it's equally important to verify the results.”

Another employer recently gave a presentation to high school students. He talked to them about the concept of a “wave runner” when navigating your career. Wave runners catch a wave by padding away from the shore and into deep water. That's the metaphor for IT technicians – “get into deep water.” Linked to this, he mentioned the need to “unlearn the stupid stuff you think you know” because that is what can limit your career. Be wary of the things you think you know that are not true. Be flexible, be as capable and as skilled as you can, and try to anticipate what's coming next and catch the wave.

From the chatbox: “Need to be a lifelong learner as well.”

From the chatbox: “And in addition I would also focus on the ability to be a team player and have interpersonal skills to collaborate well. Tools can always be learned and coming out of school you will have basic abilities to pick up new tools and systems. But preparing the future workforce to be strong collaborators is critical.”

Another employer agreed that technology is changing very fast. He talked about the need to design systems that are not dependent on today's current tools but rather are made to be durable with fundamentals. Fundamentals – which will vary by discipline – are essential for students. It's the fundamentals that students will apply as the tools change. He also suggested that students work on projects where they're given incorrect requirements and data sets so they can learn how to correct those and out everything together. Ann agreed it's important for entry-level workers to get a sense of how to proceed when a solution doesn't work the way you expect it to work.

One employer talked about the need for students to learn documentation. In her experience, when a ticket went to her, a lot of times the IT help desk would have written only a handful of phrases and often didn't even attempt to troubleshoot the problem. Her job would have been easier with more detailed notes of fixes that were attempted. She also suggested students learn how to follow – or even write – an SOP.

From the chatbox: “The use of AI for operations could also be leveraged with AI assistance, both in creating the SOPs as well as helping create the automation to support the operations procedures. the key being that the graduate would understand the logic and have the critical-thinking skills to be able to understand both ends.”

From the chatbox: “Interestingly enough, creating and managing documentation ties directly into key durable skills. While documentation is a learned technical skill, the communication and critical thinking behind it are durable skills that we continue to develop throughout our careers.”

Looking ahead 2–3 years, what technologies or changes in the IT workplace should we begin preparing students for now beyond AI literacy?	Another employer responded: help desk technicians don't write notes because they don't understand what's wrong. They don't know how to explain it because they don't know the foundational fundamentals. Students need to know how things work in IT. If you don't understand how things work you cannot understand the problem. This is becoming more critical as we move more into the cloud and use more AI. The virtual machines are still built on top of physical inventory. Part of the fundamentals now includes knowing physics, which governs how efficiently data is moved. He added that part of successful documentation is using plain language that anyone who opens the ticket can understand. One employer noted the role that physics will play in information technology. Quantum computers are already being built. Though the qubit range is "nowhere near what would be useful for many applications," quantum is being used. He argued that one cannot understand quantum computing and entanglement without understanding physics. It's likely more college-level 4D physics what will be required rather than high school-level linear physics. He's recently started refreshing his physics education. Ann moved on to her next question: <u>Looking ahead 2–3 years, what technologies or changes in the IT workplace should we begin preparing students for now beyond AI literacy?</u> One employer talked about how he could use an LTE connection on his cell phone in the South Pacific to control bots (using Grokbot) to update old software at his house in Texas. This is beyond AI reading your email or writing code; this is AI building out entire computing infrastructure and helping manage it. People who don't have a basic understanding of how to use these kinds of AI tools will have a hard time in the workforce. Another employer agreed. Think about what you were doing on your smartphone ten years ago compared to today. 6G will almost double 5G when it rolls out. "You are literally going to have a WAN LAN connected device in your pocket, wherever you are in the world." He also mentioned the growth in processing power. Chips have changed. A single smartphone has more computing power than the entire NASA system – not just the command module – that sent Apollo 11 to the moon. To him, where this is all leading is to an evolution in applications. This app "influx" will change the way we use technology. Another employer talked about safety. Entry-level workers need to understand cybersecurity principles. Even if you're not working with PII or financial data, care must be taken to protect corporate systems and data. Know the security safeguards that are in place, understand the latest encryption tools, follow the company's security guidelines. Another employer agreed with this. Students should understand that cybersecurity is becoming part of every IT role, not just the security team. A developer in the past could have focused just on building the system, then send it to a separate security team to review. That model is changing. Security needs to be a part of the development and design process from the very beginning. Even at the entry level, understanding concepts like identity, access, and risk make students much more effective in the workplace. One employer agreed with this – they want full stack developers, not just a developer who codes or tests or deploys. Employers want "all in one" developers who can bring multiple skills. He mentioned ADLC – agentic development lifecycle – in
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Will the implementation of AI cause there to be fewer job openings for IT workers from an Associate level program?	which every activity creates an AI agent. You provide the requirements and AI develops the code. There's an agent for tests, for deployment, for risk assessments. He discussed "units" – if your project requires ten resource units then maybe that's six AI agents and 2 or 3 IT technicians. The pace of production is increasing and it's going to be hard to the future workforce to catch up unless they are ready to adapt. Another employer wondered about securing that sort of agent work. Do these AI gents have credentials? Is there an implied trust? Are the same security measures in place as would be for a human technicians? From the chatbox: "The agentic workflow is exactly how AI can be brought to bear on software development in all aspects that need to be addressed. The same applies to security in infrastructure and operations, etc. AI would be brought to bear on the Dev and QA environments, but Prod would still be a controlled process in coordination with the CRB and SOC, etc. so, the Prod deployment is the ultimate HITL." One employer noted that technicians always gravitate to technology solutions. New hires will have the IT foundational knowledge, but students may need to embrace more of a "business mindset." How do you prioritize your daily work? How do you manage risk? Likewise, students all need to develop a "security mindset." Everything is getting more complex. Whether you're building solutions or designing systems or writing documentation, everyone needs to keep security in mind. Another employer recalled when IT technicians would use YouTube resources to fix a problem, not realizing that the YouTube solution was secretly installing a backdoor vulnerability on the network. There are similar unintended risks today with AI tools, like an AI agent that hacks into other systems. Yes, students need to know how to use AI tools, but it is their responsibility to monitor what the tool is doing. One employer again emphasized the need for students to understand the basics. How does coding work? How do you architect your code and balance the systems engineering portion with the computer engineering portion? How do you define your requirements? New hires mistakenly claim that they're full stack developers because they can vibe code. But successful vibe coding demands correctly using prompts to guide the AI and to do that, you know you to understand requirements and engineering. He fed an old programming manual into AI and used it to develop a fully operational open source compiler – that's how good AI is now. One employer noted that he has a shortage of IT workers, and AI is not going to solve that problem. He needs more people to build and integrate IT systems. The job candidates just do not have the skills, whether it's entry-level or a senior manager. He argued that he needs a person to check and test the code. You cannot fully automate a software test. Ann asked her next question: <u>Will the implementation of AI cause there to be fewer job openings for IT workers from an Associate level program?</u> She noted that many colleges and universities are seeing IT and computer science enrollments decline because of the worry that AI will take those jobs away. One BILT member agreed this problem may get worse before it gets better. He noted that having an IT or AI background can be a benefit across many disciplines. He told the story of a relative who was interested in LLMs that went to law school and now combined both interests as a legal consultant for AI.
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Where do you see the biggest gaps between the capabilities of recent IT graduates and what employers actually need on the job?	From the chatbox: “I’m having the opposite experience. I’m recruiting for some very specific senior roles and am finding AWESOME candidates.” One employer thinks the AI boom is a fad that will blow over. From the chatbox: “I don’t think fewer jobs, but different jobs, and shifting to other roles. I think more and more of the jobs will shift towards managing AI outputs (in any format) to ensure that it meets business needs. And also business decision making to understand where to best apply AI.” From the chatbox: “AI will reduce some entry-level task volume, not eliminate the need for entry-level talent. Routine coding, testing, documentation, support and data preparation will increasingly be automated. The entry-level bar therefore rises: employers will value people who can use AI to accomplish work faster and verify, troubleshoot and contextualize the result.” Ann asked her next question: <u>Where do you see the biggest gaps between the capabilities of recent IT grads and what employers actually need on the job?</u> One employer noted that it’s hard to get skilled entry-level workers in managed services. Customers are expecting senior-level attention, but how do you ramp up a junior-level person without getting them to work on projects? He proposed changing the community college program to create more junior-level technicians who also have some experience with AI workflows. Ann wondered what his company does with entry-level new hires today. The employer said they get put in L1 positions, either ops or writing software. This burns a lot of them out and they leave. New hires come in with a lot of passion – they want to solve problems and do things, but they have the skill set. They aren’t ready to sit in a meeting with senior executives and discuss a problem or solution. Companies don’t want to spend money on training and see those costs as unacceptable, even though he sees it as investing in the organization’s future. When Ann pressed, he admitted it’s not realistic for anyone to expect a new hire to be ready for even junior-level responsibilities. But companies tend to look for more senior-level people who don’t need extra training. The work they do for their clients is cost-constrained – they’re paying a set amount for the work you’re providing. From the chatbox: “The entry-level bar therefore rises; employers will value people who can use AI to accomplish work faster and verify, troubleshoot and contextualize the result.” - agreed - EVERYONE will be expected to use basic AI tools to be more efficient in any role.” Ann wondered about including more real-world projects in the classroom. She also noted the challenge of finding technicians with five years of experience if no one wants to hire them at an entry-level. One employer asked about internships and another employer responded with personal experience. An organization asked her Cisco Academy instructors for referrals and she was recommended at a high-profile, high-demand internship. There, she made connections and relationships and got hired full-time after she graduated. Once she was hired, she applied for a network engineer apprenticeship and worked her way up the ranks and got promotions. While she did receive some training, she also did a lot of “learning on my own” because not every task came with detailed directions. She read
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	manuals and used what she'd learned in school labs. She mentioned also the value of joining student clubs in college. She spent a lot of time at meetings after class and on weekend, doing projects with her friends. She thinks that "extra work" is what helped her succeed. Ann asked about building relationships, which isn't always easy for introverted IT technicians. The employer agreed. It wasn't always easy, especially as a woman in a male-dominated field, but her experience in Air Force helped. She also credited the overall company atmosphere of collaboration across departments and teams that helped her create connections and relationships, which helps you solve problems faster. Help is just a text message or phone call away. This employer agreed team projects in college help force students to communicate. From the chatbox: "Nothing can replace curiosity and a willingness to learn/network and really go after the career you want." Another employer noted that his son was penalized in class for working with other students. He found this ridiculous because the workforce demands collaboration and sharing. One educator asked how many BILT members have hired entry-level workers in the last 12 months. Ann suggested the be part of the next BILT member survey.
Conclusion	Mark announced the next meeting – December 8 to vote and discuss entry-level tech support skills. Tentatively, spring 2027 BILT meetings will cover voting on software development and data analytics, plus another multi-disciplinary trends meeting.
Next Meeting: Tuesday, December 8 (10:30am-12:00pm Central/11:30am-1:00pm Eastern) – job skills vote and discussion on technical support	