

Connect, Develop, Inspire - A Tiered Approach to Workforce Development for Minnesota's Tech Employers

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Abstract - *Entry level hiring is a meeting of unknowns. Companies make a bet on a candidate with no credited experience. Candidates are determining their future based on as little as a phone interview and a company website. We believe these risk can be mediated if potential tech hires and companies engage in interactions long before the job search starts. Reaching out with a purpose to Connect with, Develop, and Inspire the talent of today and tomorrow is our proposal to start these interactions. The fact that MHTA can provide a framework to initiate and sustain this process is a valuable member benefit and a concrete workforce development action.*

Technical employment, defined as “computer and mathematical occupations” is projected to grow 12.7% in the next ten years - the fastest percentage growth outside of healthcare related fields (1). The perception that that the current education pipeline is not providing candidates to fill these roles is evidenced by the emergence of corporate partnerships that own (and finance) pipeline programs start to finish (2). And Minnesota is already working on the challenge, with 20+ organizations tracked by DEED in their workforce development report card (3). Over the next 3 years Minnesota will need to fill over half a million job openings, 70% of which will require some sort of post high school credential (4).

With currently less than one candidate per opening (5), and time to fill a position up by 50% since 2010 (6), companies are already feeling the pain. The financial impact of lengthened timelines to fill postings can be difficult to quantify, ranging from delayed projects to increased turnover (7). Using a revenue per employee model a 90-day vacant position at 3M could result in \$200k revenue lost, one at UHG \$300k lost. And while low unemployment compounds the current challenge, in any economy the company wins when more and higher qualified candidates are available.

How are companies hiring the caliber of candidate they need? In many cases the remedy is to add experience requirements to entry level positions (8). Despite an ever increasing volume of tech graduates (9), less and less are meeting the qualification requirements for “entry level” work. In the last half of 2019, the unemployment of recent college graduates tipped higher than the overall unemployed work-age population (10). If companies need talent, and the schools are turning out graduates, there must be a disconnect.

Methodology

We interviewed hiring managers at our respective companies and ACE participants, asking open ended questions about hiring challenges for entry level positions. We heard, “The challenge is getting the right people interested in the job.” Indicating the skills were out there but the company was not positioned to attract. Also, “Companies are taking on the responsibility of the schools” and “Critical thinking in new hires does not appear to be well developed.” This was telling us there were educational gaps, surprisingly NOT in the specialized tasks companies would expect to be required to teach on the job, but in basic abilities. This revelation suggested a solution could be quite generalized, applicable to any company.

Reviewing these results for unifying themes, we were struck by the common feedback, “It really needs to be a layered approach.” With the broad term “entry-level” potentially covering everything from 8-week boot camp grads to Doctorate degree holders, we determined the stratification should not be based on the education requirements of the entry level job. Rather we perceived the separation falling in how far back in the pipeline to reach these potential candidates. From this assessment, we identified three pools of potential workers that could be developed to fill the growing need in technical roles:

- A. **Qualified Professionals.** These qualified graduates are not applying for the open positions. They may not be targeting the tech roles within smaller or lesser recognized companies. They may be deterred by the posting wording or requirements, or lost due to a slow hiring process. These applicants would be hired if they could be in front of hiring managers prepared to make offers.
- B. **The Near Term.** These candidates are in technical fields, but they may not be on track to shine upon graduation. They would benefit from corporate interactions to increase their communication and analytical skills, demonstrate work ethic, connect with mentors, get acquainted with the hiring process, and ultimately understand what emerging and existing tech jobs will be out there upon graduation and how to best qualify for them.
- C. **The Next Generation.** This pool consists of those who are not even considering a technical career. Often this will be young students but could include un-tapped adult populations as well looking to change careers or go into professional fields.

Proposal Details

The outreach to these populations would differ in the type, duration, and return on investment timeline. Some may absolutely require partner organizations. Their differences can be appreciated by distilling into three objectives: Connect - Develop - Inspire, based on the three contact points.

- **Connect** and recruit qualified professionals, getting the best access to new graduates from any technical program (certificates/boot camp, 2-yr, 4-yr, Graduate School).
- **Develop** the near term prospects - those currently in the programs - so that they are accessing the network and experiences that will position them for success.

- **Inspire** the next generation of students to ensure they are entering the pipeline.

Why advocate this three-tiered approach? Most, if not all, companies are already working in this space. Many have outreach to promote STEM with local schools, e.g. Science Fair judging and similar. Most have a presence at career fairs and on-campus hiring events. And certainly a company will train an on-boarded employee in any technical or non-technical skills which may be lacking. Disparate initiatives such as these lead us to wonder – are companies aligning their development resources with their hiring goals? Further, are we leveraging the common needs of the Minnesota’s high tech employers to efficiently execute these programs? To that end, we propose MHTA solicit input from member companies on their current workforce development activities. An example of possible survey questions follows in the appendix, to be requested of companies upon joining or renewing membership with MHTA. The responses can then be categorized in the Connect-Develop-Inspire framework and accessible as a member benefit.

In practical terms, creating such a database would allow:

1. Collaboration between member organizations to deliver modules efficiently with highest return on investment;
2. Sharing of success stories at events such as Lunch and Learn, Spring Conference, or topical MHTA events; and
3. Collection of feedback on the success of module execution.

The collection of feedback and success metrics is crucial to the success of this endeavor. Not only will it further refine the Connect-Develop-Inspire offerings, but the data collected can highlight the value of MHTA to member companies. Feedback from a neutral organization will also ensure we are taking into account the perspective of the current (and future) job seekers. What do they need to learn about the employment landscape? Are they actually meeting and speaking to people who can help further their career track? Do they leave more confident about their educational choices and prospects for employment? As we elaborate on each of the Connect-Develop-Inspire platforms in the following sections, imagine the impracticality of an individual company attempting to follow up with participants on outcomes.

CONNECT

Connecting to the hiring pool may sound simple – post on internal and external job boards. However, the job seekers rank leads from personal contacts (friends and family) equally important as these web resources (UMN). And from game rooms to Friday keg parties, we all know the current new graduates have been solicited with all sorts of perks which may or may not align with their interests. A **CONNECT** event can be a simple one day on-site event including the following:

- **Exposure to Company Culture.** Can be as easy as having potential candidates on site to see the facility, enjoy lunch, and take in the workspace, demographics and overall impressions.

- **Increase Understanding of the Jobs Available.** Accomplished via day-in-the-life demonstration or job shadowing.
- **Align Job Posting with Expectations.** Gather input from candidate pool on postings – what grabs their interest? E.g. work location, wording, requirements, job description, etc.
- **Soft Skill Improvement.** Include activities to evaluate and enhance soft skills – elevator speech practice, interview practice or assessment.
- **De-mystify Job Seeking.** Explain the hiring process and total compensation package such that candidates are not chasing a salary range.
- **Shorten Time-to-Fill a Position.** Where possible align with open postings and accomplish same day interviews or offers.

MHTA member companies could obtain a sample agenda of a **CONNECT** day with specific activities details suggested. The companies would be expected to respond to a post-event survey regarding attendance and any successful hiring or potential hires identified.

DEVELOP

The more intensive commitment comes in the **DEVELOP** engagements, which would intercept students in current technical programs. Engaging with educational institutions is necessary to reach this group.

- **Project Based Learning.** Companies provide real-world problem solving situations to the classrooms of technical programs. Employees provide problem descriptions, answer follow up questions, and assess the solutions proposed.
- **Expanding internships “outside the box”.** Allow recent high school graduates to intern in applicable roles, earning money for school while gaining exposure to a potential educational and career path.
- **Skills Transfer Relationships.** A current employee seeking to learn a skill could reach out to an educational institution to contract with a student proficient in the skill.
- **Cascading Mentorships.** Recently placed individuals offer guidance to currently enrolled students on job preparation and job seeking.
- **Soft Skills and Interview Training.** On campus events focusing on subjects such as “Refining your internet presence” or “Why a fast food job CAN enhance my resume.”

Here, interested companies would indicate a desire to implement a particular module and be directed to the contacts at educational institutions. The company, the supporting institution, and the involved students would assess the quality of the interaction, highlight tangible gains, and propose improvements. Ideally, students would be contacted post-graduation to determine if the **DEVELOP** interaction resulted in an entry-level position post-graduation.

INSPIRE

Finally, the **INSPIRE** division involves attracting un-engaged populations to the technical fields. STEM outreach is nothing new, somewhere in the neighborhood of \$3B is spent by the federal

government on STEM initiatives (11). And it seems to be working, as we are awarding twice as many bachelor's degrees in science and engineering as 25 years ago. However, are we providing the company recognition, career role models, and tangible support so that our scholars can say, "THAT is what I want to be when I grow up?" To that end we propose direct company sponsored activities that further:

- **Understanding of Local Companies.** Company tours with engaging, age-specific activities – school or family targeted.
- **Reaching out to Parents.** Host open houses to ensure parents have the knowledge to guide students into tech careers. Provide lists of tutoring resources and encourage employees to volunteer in tutoring programs these parents can access.
- **Jump Starting College.** Advertise Post-Secondary Enrollment Options – these funds are applicable Career and Technical Education as well as community and technical colleges. Propose a curriculum that would qualify a student for a job at your company.

Again, MHTA is not to administer any **INSPIRE** programs, rather their role is to highlight opportunities and connect companies to K-12 resources eager to have an on-going relationship. Any ability for MHTA to get access to longitudinal data on outcomes from these relationships would underpin the resources invested.

Value Proposition

Local graduates have a 70% chance of staying in MN and joining a MN company (12). It is in all our interests to ensure that graduates are not only proficient, but also well aware of local companies. Engagements partitioned under the Connect-Develop-Inspire themes will increase the likelihood of success, because the expected returns are clear and previously demonstrated. MHTA will be credited with facilitating the relationships that will bring better qualified candidates to the door. Following the adage, "a rising tide lifts all boats," MHTA is positioned to quell competitive tendencies as companies may desire to pool resources to deliver these modules. This differs from establishing a formal, funded workforce development architecture to fill an employment track. Companies can commit as little or as much resources as they see fit in order to see returns on their expected timeline. At the same time as the company delivers an educational module, they are promoting themselves as a local employer, with real in-person interaction.

With 67% of CIOs reporting that a skills shortage is preventing their organization from keeping up with the pace of change, it is clear we are and will always need to increase the technical caliber of our workforce (13). But workforce development is not free, and the greatest disappointment to a hiring manager is to take a lackluster candidate on, train them to competency, and watch them walk away to a better fit. Therefore, our proposal to **Connect - Develop - Inspire** can remove some of that risk. Investing a training dollar targeting the population, rather than an individual, while establishing a brand and a relationship with future

candidates, will be a dollar better spent. MHTA's offering access to a workforce development resource library exemplifies the tangible benefits of consortiums such as MHTA, and is at the core of MHTA's values.

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- (14) Harvey Nash/KPMG. (2019). CIO Survey. Retrieved from <https://www.hnkpmgciosurvey.com/charts/home.php>

Appendix: Example of Workforce Activity Submission Form

Activity Title			
Brief Details			
Company			
Contact Person			
Phase	<input type="checkbox"/> CONNECT	<input type="checkbox"/> DEVELOP	<input type="checkbox"/> INSPIRE
<i>Target Audience Demographics</i>			
Completed Education	<input type="checkbox"/> Graduate <input type="checkbox"/> Certificate	<input type="checkbox"/> 4YR Post-Secondary <input type="checkbox"/> HS or GED	<input type="checkbox"/> Tech /2YR <input type="checkbox"/> none
Currently Enrolled/Interested	<input type="checkbox"/> Graduate <input type="checkbox"/> Certificate	<input type="checkbox"/> 4YR Post-Secondary <input type="checkbox"/> HS or GED	<input type="checkbox"/> Tech /2YR <input type="checkbox"/> K-8
Under-represented Populations	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Describe Population			
<i>Resources Required</i>			
Duration of commitment	<input type="checkbox"/> 1 day <input type="checkbox"/> annual	<input type="checkbox"/> multi-day <input type="checkbox"/> on-going	<input type="checkbox"/> month(s) <input type="checkbox"/> flexible
Total Employees Required	<input type="checkbox"/> <10	<input type="checkbox"/> >10	<input type="checkbox"/> flexible
Frequency of Interaction	<input type="checkbox"/> once <input type="checkbox"/> biweekly	<input type="checkbox"/> intermittent <input type="checkbox"/> weekly	<input type="checkbox"/> monthly <input type="checkbox"/> daily
HR resource Required	<input type="checkbox"/> No	<input type="checkbox"/> Yes	
Management Required	<input type="checkbox"/> No	<input type="checkbox"/> Yes	
Budget commitment	<input type="checkbox"/> None <input type="checkbox"/> <\$10,000	<input type="checkbox"/> <\$1,000 <input type="checkbox"/> >\$10,000	<input type="checkbox"/> <\$5,000 <input type="checkbox"/> flexible
<i>Promotions and Partnerships</i>			
Partner Organization type	<input type="checkbox"/> Recruiter/ Staffing Co Academic Department	<input type="checkbox"/> Training Program K-12	<input type="checkbox"/> Workforce or Career Center Community Resource
Specific Partner(s)			
Collaborate w/ other companies	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Promotion Methods	<input type="checkbox"/> Socia Media	<input type="checkbox"/> Partner Websites	<input type="checkbox"/> Media/Print
Specific Promotion Venues			
<i>Outcomes & Metrics</i>			
Target Outcome(s)	<input type="checkbox"/> Same Day Hires <input type="checkbox"/> Mentoring	<input type="checkbox"/> Resume Pool <input type="checkbox"/> WorkForce Develop	<input type="checkbox"/> Internships <input type="checkbox"/> Education
Attendance and Outcome data	<input type="checkbox"/> Available	<input type="checkbox"/> Not Available	
Patticipant Survey Results	<input type="checkbox"/> Available	<input type="checkbox"/> Not Available	