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Communities of Practice: History

In late 2013, Bruce Noble, the Deputy Sector Navigator (Regional Director – RD) for the Energy, Construction and Utilities (ECU) sector identified some challenges among the HVAC (heating, ventilation and air conditioning) programs in the Southern California region. The Deans in the local community colleges were scrambling to fill their programs and the funding formula at the time required an industry partner in order to win the needed regional monies to improve the programs enough to attract more students. The country was struggling out of a recession and Bruce observed that each college was tackling the same issues independently rather than working together.

He approached some of the colleges with a dual value proposition; he could bring access to regional funding if they agreed to join a learning community or collaborative to share best practices and establish a single voice to industry across the campuses. Five colleges got engaged – two faculty from each - and each brought at least one of their industry advisors.

By August of 2014, the framing for the HVAC Collaborative was complete and initial faculty-only meetings were held that fall. Simultaneously, Bruce held separate roundtable meetings with HVAC industry leaders to find out their needs and then communicate them back to faculty. Over the next three years, there were 25 gatherings of industry, faculty or both involving 19 different colleges. The HVAC Collaborative later expanded to Orange and San Diego Counties, High Desert and the Central Valley. Since that time, the ECU sector started a Community of Practice (COP) initiative in Advanced Automation in Orange County and others are in consideration in Facility Management.

This document is designed to socialize insights learned from these efforts with other sectors to facilitate and encourage others to build on these experiences.

Terms and Terminology

The focus of this document is on what it takes to create "Communities of Practice" -- on-going and sustainable groups of faculty and industry who meet regularly to improve student outcomes. We use the term community of practice (COP) and collaborative interchangeably in this document. Previously, the ECU sector called their COPs "Expert Networks," but the team evolved to the more familiar "community of practice" label. Industry trade groups, industry advisory councils and advisory boards are also a form of COP.

Why Create a Community of Practice?

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Whenever we begin to introduce any new initiative, we must first understand what's in it for the participants and what motivation would be for someone to want to engage. Much has changed since 2014 and today the community colleges are awash in money so the initial ability to entice participants by bringing needed funding has faded. We must ascertain that there are ample measurable outcomes for faculty, industry and the colleges; here are a few that we've discovered:

Value to Region:
- **United Purpose:** To establish a common vision and work toward **common student learning outcomes** across campuses with similar programs.
- **Economies of scale:** To **increase enrollment** and allow participants to **pool resources** at the regional level – like marketing. To **combine resources** that include, but are not limited to: knowledge, systems of successful practice, and equipment as well as lab experiences, assignments, tests, industry valued assessments and credentials, PowerPoints, and other instructional resources.
- **Industry Connectivity:** To engage faculty in **meeting industry priorities** on a regional and statewide scale. To allow industry to connect across multiple campuses more efficiently and effectively and **increase college's links to industry** as well as community and trade organizations. To engage regional industry partners to facilitate a pipeline to fill workforce needs. To create strategic partnerships between campuses and industry to facilitate upskilling of incumbent workers.

Value to Faculty:
- Many faculty members feel overworked and underappreciated. The system they work within can be difficult to change and often allows for limited flexibility. A COP can offer participants a chance to **share ideas** on how to move things more quickly and how to overcome potential roadblocks. It also offers **opportunities for recognition** of their programs and the great work that they have been doing to attract more students.
- Faculty members in individual colleges often don't know one another and are frequently the only SME in their subject area in their college. A COP can offer them a chance to **learn from one another** and also feel less alone and isolated. Faculty also **share systems of practice** including the how-to's of technology/software management, grant funding process, managing tools, etc.
- Developing new curriculum is a time-consuming process; if there is existing curriculum already in place in another college, a COP provides the **opportunity to adopt that curriculum more quickly** than starting from scratch. Faculty may also find someone willing to give them **input on their curriculum** among COP members. In addition, COPs can work across campuses, hiring consultants to help move curriculum development forward more quickly.
- Having **connections to industry** provides a number of additional benefits to faculty – knowledge-sharing; professional development; job opportunities, externships and

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internships for students; access to lab activities, equipment and funding; access to guest speakers, adjunct or new faculty; and updates on industry trends and standards.

Value to Colleges:
- The main attraction to colleges is **more engaged and satisfied faculty**, faster development of and access to curriculum, **more industry-aligned curriculum**, more opportunities for students to **access internships and jobs** and **potentially funding and equipment from industry**.
- COPs also provide more possibilities of regional activities that provide **access to additional funding sources,** particularly under the new funding formula, and the chance to eliminate redundant programs between adjacent campuses.
- Over time, COPs may also welcome classified employees (student services, career services) as participants and administrators as SMEs and participants as needed.

Value to Industry:
- The main attraction to industry is **access to a pool of trained entry-level personnel** and/or resources for up-skilling their existing workforce.
- Similarly to their faculty counterparts, industry COP members enjoy **sharing their expertise**, finding like-minded colleagues, **giving input on curriculum**, helping **design custom curriculum** specific to their company's needs, **providing needed equipment and funding**.
- Some industry folks **want to be adjuncts**; this can be one of the attractions for them in getting engaged. Often, they also want to learn about the community colleges, give back and build sustainable relationships. We found that most who join a COP are subject matter experts who have a regional or statewide perspective.

Getting Started

Kicking off a new COP requires leadership and a "coalition of the willing" – usually faculty from a few colleges who share a common interest in some or all of the above benefits. The HVAC collaborative was a good starting point because HVAC is the largest user of energy in California and the ECU sector is focused on energy efficiency. It was relatively easy to convince colleges to join since many had existing programs in this area or were interested in developing new programs aligned to statewide mandates.

Leadership of a COP is usually done by a Regional Director (RD) or Statewide Director (SD) or a hired consultant who plays that role. However, to be successful these folks need to have credibility with faculty as well as connections to industry and an interest in making these connections. Bruce Noble shared that one of his early advantages was that he was for a time assigned to be the voting member of the regional consortium, so they saw him as a strong workforce expert that was in their club. He had great access to the Deans who all knew about

his expertise. Over time there has been a lot of turnover of Deans, so he has lost some of those relationships but many of those that remain are still committed to the success of the COP.

We've also found that success is frequently dependent on a lead college and a lead administrator. Deans or VPs of Instruction are often the ones who make things happen and assuring their engagement and support can be critical. CIOs will always focus on what's most profitable and often what's going to give them a short-term win. Only some see the importance of long-term investments like building a COP.

> As you think about your own sector, identify a few potential COP opportunities based on administration, faculty and/or industry needs and then begin your outreach to identify those willing to commit the time and energy to get involved.

To "sell" the COP message on the community college side, SDs or RDs should start with in-person meetings with deans and administrators. Ask them to name faculty that they recommend as participants. Then, meet one-on-one or in small groups with the faculty and enroll them in participating in a workshop or activity that yields a tangible benefit. This might be developing an instructor resource guide, apprenticeship program, jobs for students, a central repository for needed industry-focused learning materials, or other professional development activity. Spend some time listening to their needs so that you can shape the outcome to their greatest pain points.

Remember that being in front of students takes a lot of energy out of faculty; they are not motivated or rewarded for communicating with each other outside of understanding how to do their own job within college guidelines. **The SD or RD must commit to doing the heavy lifting to get the meeting or initiative underway**.

Then, at the initial meeting(s), the focus should be on creating a shared vision of what benefits a COP might bring to participants. Developing a clear set of goals of where you'd like to be in a year, as well as designing some early wins can help keep momentum strong. Be sure to mentor new faculty; don't overload them with new responsibilities.

To "sell" the COP message to industry, we've found that personal relationships are key. One member of our team, Gregg Ander, had extensive industry experience and thus could reach out to friends and former colleagues to invite them to participate in the Orange County Advanced Automation Advisory Council. From the first, he made a commitment that the group would stay technology agnostic, which was important to the industry partners. Instead, they would focus on building programs that taught the fundamentals of automation, and then let the companies add the specifics.

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If you don't have a consultant or someone on the team with these sorts of personal connections, make it a pre-requisite that the colleges bring in one of their industry advisors if they want to join the COP. Some faculty also have connections to industry, but they have to be willing to share those contacts which is not always the case.

Before they decide to join, industry participants want to know who the other players are, what is a Community of Practice and how it can help them and their business. They need to know that their time will be rewarded with better-qualified workers – either through training for incumbents or as a resource for new employee candidates.

Other options to consider:
- Organize a first gathering of possible COP participants before/after an upcoming event, such as the CCAOE meeting or industry educational conferences, where faculty are already attending. Once faculty see the benefit of collaborating with others, they may be more open to meeting on an on-going basis.
- If there are no existing faculty in a program area, include the Dean or Department Chair as COP member. As they identify faculty, they can be included.
- One option is to begin your recruitment with faculty at small rural colleges who are often more isolated and might welcome the possibility of meeting and working with others.
- If you don't get traction from long-time, tenured faculty, begin with adjuncts, new faculty or those running new programs. They may see the value more clearly since they won't have existing relationships with industry or one another.
- Customize your efforts to the regional needs – i.e., in the Central Valley, there are smaller independent contractors rather than large employers, so the COP meetings were designed to accommodate their schedules and needs.

> The more committed faculty are the change-makers who are interested in improving their programs and helping others improve theirs in the interest of improving student success.

Meeting Structure

There is not just one way to structure a community of practice. The structure should be based on the needs, demands and commitment of the membership. A common model for a nascent COP of faculty is quarterly meetings, while for a mature COP it might be two large meetings per year with several small or sub-group gatherings, integrated with webinars, workshops, and seminars.

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Hosting meetings on Fridays in the morning was a winning strategy for the SoCal HVAC collaborative because faculty doesn't teach on Fridays and business folks can often get away from work most easily that day. Other options are to host at the end of the day or even at lunch time. Faculty values beverage and food, and really appreciates dedicated time for networking.

To keep Advanced Automation industry members connected over time, we found that hosting regular one-hour webinars at 9AM PT using Zoom gave the highest level of participation. It was important to have a set agenda, a PowerPoint deck (provided in advance for those who can't login), clear objectives and facilitation. In either case, for industry or faculty COP meetings, there should always be a tangible outcome.

As the COP matures, some events may be regional, and some may welcome state-wide participants, so the key is to calendar events far in advance and try to calendar an entire annual flow of meetings. This allows people to see that even if they are going to miss one event, there will be others. In addition, some meetings should be joint, between faculty and industry, while others can remain separate. As people start to hear about what you're doing, they will approach you to ask to join. Over time, it is useful to hook in student services and placement folks as attendees or guests.

The ideal size varies depending on location, topic and interest area. ECU sector COPs vary from about 10 members to 50 or more, although certainly not everyone attends every meeting. Larger meetings need facilitation which an RD or SD can pay for in order to ensure the meetings run smoothly. They can also offer to pick up travel costs for faculty who must come from a distance to participate. Finally, they can be responsible for "marketing" the meeting by sending out very regular invitations, updates, agendas, and calendar reminders.

> Focus larger events at the 30,000-foot level so the meeting can be useful to a wide range of folks. Use local meetings to share best practices, for mentoring, networking, and to collect information on what people need help on.

What Doesn't Work

As previously mentioned, the initial HVAC COP was structured as separate meetings for faculty and for industry, with industry members included as guests, panelists, speakers, etc. for faculty sessions but not as regularly invited members. Unfortunately, when faculty and industry came together initially, the conversation quickly devolved. Some of this was the "inside baseball" of community college jargon, acronyms and lingo, but there were other challenges.

On the one side, industry had expectations of specific results in a quick timeline, which was not realistic. On the other side, when industry requested specific topics or courses, faculty tended to say, "we already do that" or "I've been teaching that since 1985." This was not conducive to

long-term partnerships. Establishing strong core faculty and industry groups separately first was essential to overcome this dynamic, although stronger facilitation may have also prevented this in other settings.

> If you don't have Dean and faculty support, cut your losses and move on. And, when leadership changes at a college, be prepared to have to sell the whole idea again…and sometimes you'll fail.

Another significant lesson was learned when the ECU team attempted to assist faculty in developing consistent student learning outcomes across the state's major HVAC programs. Detailed research commissioned by the team benchmarked the course outlines of record for 12 programs against an industry-recognized "employment ready" credential. The research highlighted many opportunities for consistent student learning outcomes, but few colleges acted on its findings.

Some faculty reacted negatively to the research, feeling that it did not accurately reflect their programs. The problems stemmed from (1) ineffective communications by the ECU sector team to properly position the research and (2) using course outlines of record, which in many cases were seriously out of date. The lesson was that continuous faculty communications and buy-in is required, and that faculty needs to agree that the basis for comparison is fair.

Keeping Momentum

Building and nurturing a COP is not a one and done activity – and requires a sustained and consistent engagement strategy. It takes on-going tending and regular revitalization, or it can quickly lose momentum. While the goal is to create a self-sustaining group, this is difficult to achieve as faculty get busier, there is turn-over on both the faculty and industry side, and competing interests arise among participants on what to tackle next. In one case, when a program at one college devolved, and a key faculty champion departed, the RD in charge of the COP was forced to re-start from scratch.

To offset these challenges, COPs need to have a dedicated leader who is interested and getting paid for the outcome. They must ensure that COP members stay involved in setting the agenda, take turns hosting events, have opportunities to showcase their expertise, serve as speakers and even get a chance to show off their facilities and programs to the other participants. We've

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learned that faculty want to see each other's labs, see how others use their equipment, and hear from industry speakers or manufacturing reps.

While some faculty will attend early meetings simply because their Dean urged them to, they will stay if they can see a consistent "what's in it for them." The challenge is that each may have a different priority that will keep them coming back. Adopt an attitude of regularly listening for new needs at every meeting and on every call so that upcoming agendas can be tailored to meet emerging needs.

> The person who controls the minutes controls the project. After the meeting, pick out the key talking points and put them in the minutes to steer people to remember what you want them to remember.

Provide participants with access to high quality speakers, a well-structured agenda, industry connections and most of all a chance to make a difference – either for students or for themselves. In one of our COPs, we invited more experienced faculty to mentor new faculty which worked out well. The more experienced faculty saw this as proof of their success. They said, 'I wish I'd had this when I was starting out."

Mix up your meetings – some on campus, some at employer's locations. We've found that meetings that feature panels don't really resonate with faculty. People appreciate the information but it's often too much as if the panelists are really talking to themselves. Industry speakers end up enjoying themselves but not the faculty.

> It can be hard to maintain momentum and participation with faculty after they have filled their programs and their students are getting jobs. They aren't reaping the same benefits as they once were.

At times of lean funding, having funding sources available to provide faculty and programs with software and equipment, travel funding, etc. can make a big difference. In flush times, this is less attractive and starting a new COP can be more challenging because people are overwhelmed by what's already on their plate. COPs can also be helpful when colleges are facing a shortage of FTES as they can give them opportunities to build up and improve their programs.

> Sending one meeting notice a few months in advance and expecting people to show up has been a recipe for disappointment. Instead, plan for a drip campaign with regular updates on why to stay involved, upcoming events, fresh ideas, opportunities for funding, links to articles, etc.

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By structuring the COP for flexibility, and being willing to experiment, it is likely you will accommodate more people's needs and have a stronger chance of longevity. In one case, a faculty member at one regional college suggested that they host one of the annual industry advisory meetings in May, within 3 weeks of graduation, and invite students to a networking mixer at the end of the meeting. By the time the event was over, many students had lined up interviews or jobs, which was an easy win-win for everyone.

Keeping members of industry advisory councils engaged brings its own challenges and is pretty labor intensive; they need a lot of nurturing. As mentioned previously, many have an unrealistic expectation of the speed at which things can change, particularly when it comes to developing new curriculum or expanding to new campuses. In order to provide value for industry, you must establish and agree what the outcomes should be and assure that faculty follow through on the commitments that they've made. Sometimes you need to do things that industry needs in order to get their active participation, even if it would not otherwise be your priority.

> Engaging college leadership can also be a critical component of success. After you have the Dean or Department Chair bought in, keep them informed about any contact with or asks from their faculty. Even though they may not respond to every email, this will prevent problems down the road.

If the goal of the COP is to develop a new course, one option is to ask industry what is needed, then put together a course outline and hire a consultant to do a deep dive. Then review with community college leadership and industry. Another option is to ask senior executives in industry to appoint SMEs to do on-the-ground work to build out the curriculum, help with placements and enrollment strategies. Some schools see the value of this model because they can then bring in faculty to teach the class once the curriculum is complete. Others balk because faculty needs to own the curriculum development.

In order to assure successful articulation and matriculation, it is critical to avoid the destructive competition between programs and faculty. Allow each school to develop their own specialties and get faculty members to direct students towards the appropriate specialty even if it's not at their campus. Finally, celebrate the wins. No win is too small - and an early win can demonstrate value, trust and ability to scale to broader success.

Long-Term Success

Every Community of Practice will measure their success in different ways, however we recommend that at least one of the criteria be aligned to students getting hired, gaining work experience and/or identifying new career pathways. Over time, we believe there is an

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opportunity to establish a continuous feedback loop to ensure that these new hires are meeting industry's needs and if they're not, that colleges be willing to change their programs accordingly until they do. This has not yet been achieved by the SoCal HVAC Collaborative but is still a hope for the future.

We have found a few things that will cause a COP to fail.

- Not staying focused and taking tangents that are not directly related to your goals.
- Lack of delivering committed results.
- Getting too busy to keep a predictable schedule.
- Being too ambitious – and not having the capacity or resources to implement and then lose momentum.
- Not keeping industry engaged and/or not sustaining faculty engagement and excitement.
- Not having a leader/facilitator that manages and directs the operations and communication of the group. They must address issues, concerns, and requests immediately.
- Lack of clear direction or objectives. Once established, there must be evidence of progress toward the objective.
- Not having a faculty champion and an engaged Dean.

Summary

The last four years have provided a lot of opportunities for learning, building new connections and creating momentum around some important initiatives. The ECU sector is proud of the successes, but also humbled by the challenges of building a successful COP. We continue to envision a future with completely engaged faculty and industry, many new internships and externships, increased donations of money and equipment from industry and many more students industry-ready and fully employed. However, we are not there yet and welcome the opportunity to learn from other sector's efforts and continue to update and share our learnings moving forward.

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