

# FULL CON TECH

2015 PLAYBOOK

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## What is this playbook?

On September 15th, 2015, more than 300 people of action from across Washington State gathered to draft a playbook for the future of our state's technology-driven economy at the first-ever FullConTech conference from the Washington Technology Industry Association. This document is the result.

The plays were developed after a full morning of learning about the top challenges from leaders across industry, government, education, and the community. After our tipoff with legendary NBA & U.S. Olympic coach Lenny Wilkens, we split into two brackets to take on our industry's biggest challenges: developing and attracting top talent and nurturing an ecosystem that can support continued growth. In the afternoon, they split into 12 teams that each tackled one aspect of these issues in greater depth.

Every panel featured a breadth and depth of insights. We recruited panelists who represent the community we serve—a cross-section of the public, private, and non-profit sectors, ensuring the afternoon discussions were well-informed.

WTIA's commitment to empowering diverse voices was evident at FullConTech. Of 35 speakers, 15 were white and male, 13 were women, and 7 were people of color. Among our 24 facilitators, chosen for their expertise, we had 11 women and 7 people of color. Of our total attendees, nearly 43 percent were women. We—and the sector—still have a long way to go in terms of diversity of all kinds, and we believe that conscious recruiting will get us there.

We also had tremendous geographical diversity, with participants from Bellingham to Olympia to Chelan and everywhere in between. We believe that comprehensive solutions are generated only through diverse insights and buy-in from many communities, and we are thrilled with what these groups achieved.

Many of the concepts in this document have been discussed before in board rooms, in company hallways, at community events, in the media, and around kitchen tables. Our reasons for publishing them in this format are:

- First, much like an actual sports tournament creates a milestone for teams, we wanted this inaugural event to create a baseline against which we can evaluate our region's progress toward solutions. We hope and expect that by next year, things will have changed, and we can see what is and is not working.
- Second, we wanted to publish a single document that summarizes the needs and concerns of our stakeholders – an easy way for anyone to see what the core concerns are as well as areas where there is momentum for change.
- Third, we wanted to make a public commitment to exploring the feasibility of top ideas from the event.
- Finally, and perhaps most importantly, we wanted to equip the community as a whole to take on these challenges, armed with insights and some ideas we can start testing now.

If this Playbook inspires you to take action, please reach out to us at WTIA. As a convener of Washington State's vibrant tech community and all those to whom it matters, we are committed to moving this industry forward in a way that supports future economic growth for the state as a whole.

# Summary

Although each of the 12 teams had a different makeup of participants and a different driving question, many of them identified the same needs and come up with very similar ideas. They also articulated very similar guiding principles.

In many ways, the similarities are more interesting than the differences, as they point to areas of greatest urgency. Here are the themes that came up the most:

## Themes

*Digital literacy.* Whether discussing the K-12 system, adults in career transition, or household connectivity, participants envisioned a future in which every citizen of the state would have a functional understanding of how the technology-driven economy works and have the foundational skills to not only survive in it, but help us keep moving forward.

*Connecting the pipeline.* We are losing productivity and creative potential by not having adequate structures to support educators, adults in career transition, job seekers, immigrants, and new residents. Having identified the junctions where we are missing opportunities, it is time to invest in approaches that will re-connect people to each other and ensure that everyone who wants to participate in our tech-driven community can find a place in it.

*Maximizing connections across sectors.* There is a perception that tech companies - and those who work in them - are disconnected from surrounding systems, such as schools and communities. Most attendees want to create some kind of formalized partnership, or at least working groups, that would foster more genuine and productive connections among technologists, educators, public servants, and the community.

“PEOPLE SWITCH JOBS FASTER THAN THEY MOVE.”

*Rethinking the structure of work and how we prepare people for it.* In the education sessions, participants advocated for a project-based approach to both learning and résumé-building as a means to helping people learn real-world skills and be motivated to apply them. On the recruiting side, participants wanted to see companies be more open to the many ways that the workforce might contribute their talents, including through job-sharing. They also

wanted to see new structures designed for adults in career transition and programs to help new workers refine their skills.

*Making better use of data and technology.* With so many data and technology companies in our state, we have ample opportunity to pioneer innovative, data-driven solutions to challenges in our education system, public sector, and broader community. Every team expressed a desire to see more partnerships across sectoral lines that could unlock not only the financial resources of the technology industry, but the skills and expertise of those who work in it.

*Investing in community.* Each of the 12 teams wanted us to consider the human beings who make up our systems and invest in approaches that empower them to innovate. For the health of each individual entity in our state, we need to put more resources back into the community as a whole.

“IF WE REALLY WANT TO PREVENT TENS OF THOUSANDS OF RESIDENTS FROM BECOMING UNEMPLOYED – AND INSTEAD READY THEM FOR THE JOBS WE NEED FILLED NOW– WE NEED A TARGETED EFFORT.”

## Approaches

The majority of groups focused on these guiding principles:

*Transparency.* Seen as both an end in itself and a means to achieving improved results, every group wanted to create some kind of platform for better sharing of information about what's happening in the region and best practices for addressing key issues. This extended to opening data, not just from government but also from industry, about everything from public budget decisions to internal hiring patterns.

*Incentives and informed choices.* FullConTech participants took an incentives-based approach to making change. For example, they wanted K-12 students to understand the opportunities available in the industry and choose for themselves to seek a foundational education in STEM. To increase diversity in tech, they wanted to see funders step up

and create diversity incentives, as well as to better inform tech leaders of the benefits of having a diverse workforce. The overall tone was more practical than punitive.

*Equity, diversity, and access.* Every group was concerned by how much some communities in our state are falling behind – whether that’s due to race, class, gender, geography/ location, access to infrastructure, or some combination of the above. They also wanted to be sure that the ecosystem continues to nurture risk-taking and innovation by creating opportunities for startup jobs, keeping cost of living reasonable, and preserving the diversity of communities. A driving ethos was to close the gaps between groups now rather than see existing divides become further entrenched as we continue to grow.

## Specific Ideas

While there were many great ideas that you’ll find in the following pages, we at WTIA have identified several that we will pursue in 2016. Over the next month, we will be working with our stakeholders and the community to validate these ideas, test their feasibility, and look for opportunities to collaborate with organizations already working on these issues.

Here are the ideas WTIA can publicly commit to leading or supporting in the coming year:

1. **Develop a standard taxonomy of tech jobs.** With so much creativity in job descriptions and so little transparency in the recruiting process, it is difficult for job-seekers, recruiters, and hiring managers to get on the same page. At a minimum, we would like to publish a standard description of common tech jobs, including the skills required to be effective in those positions. Our goal is to communicate clearly and precisely which jobs are in highest demand so that students, educators, and adults in career transition can make more informed decisions.
2. **Host a level-playing-field career fair.** Invite employers and schools of all sizes to participate. Build in an opportunity for hiring managers, recruiters, and educators to interface. Share out data about the results. Simultaneously explore an aggregated on-campus recruiting mechanism for small and mid-sized companies.

3. **Brand the Puget Sound as a great place to work, live, and start a business.** Target startup founders and top tech talent from around the world. Showcase all the things our region has to offer. Make it easier for people wanting to move here to get to know the region and get engaged, perhaps with a welcome kit. Find some way to amplify the regional brand,

leveraging existing efforts by both WTIA (such as our member stories) and by others in the community.

The next six ideas are ones we commit to exploring open-endedly, to discover what role, if any, it is appropriate for WTIA to play in these areas:

- **Advocate for policy changes** in immigration, procurement, and the tax code.
- **Advocate for funding** for the ST3 rail line, innovation funds for service providers bringing broadband to disconnected areas, and a special publicly-funded grant pool for adults in career transition.
- **Convene a state-level committee on connectivity.** At a minimum, seek to create a mission statement that can guide policy-making and investments.
- **Create healthy crossover between the tech sector and government.** Looking for opportunities that uphold the ethics of the public sector as well as the needs of citizens. Explore supplementing public sector tech salaries, create fellowships, establish service rotations, and other methods of infusing the public sector with the talent and insights that our top technologists have to offer.
- **Publish resources for adults in career transition.** Help Washington State’s workforce understand what opportunities are available and how to apply for help.

“TECH SERVES AS A SOCIAL MOBILITY LUBRICANT.”

- **Seek public-private partnerships for education.** Explore potential sponsorships, volunteer partnerships, project-based learning, supported curriculum development, professional development opportunities for

teachers, and other ways of supporting the K-12 and higher education systems

Some ideas that we think are worth exploring, but WTIA cannot commit to at this time, include:

- **Consider some uses of land as a public good**, such as space for startups, ensuring that there is room in our ecosystem for new innovations and enterprises to develop even as demand for space by booming industries grows.
- **Define “STEM readiness.”** Work with employers and educators to develop an understanding of what skills and educational foundation Washington’s workforce needs. Communicate this in such a way that educators can act on it.

“THE BOTTOM LINE:  
EDUCATORS AND STUDENTS  
WANT TO UNDERSTAND BETTER  
WHAT EMPLOYERS VALUE.”

- **Develop neighborhood-level committees** involving tech employers, citizens, and government to address big issues such as transportation.
- **Empower the community to develop tools** based on open data from government and companies.
- **Enable project-based learning** at the high school level and above, working with companies to design value-added initiatives and allowing students at high schools, community colleges, and universities to explore the applications of their work while still in school.
- **Encourage transparency about diversity in hiring** through funding caveats and other incentives.
- **Explore job-swapping** across companies that have multiple locations; use technology to empower shifts in team composition based on where people live so that we can save on commute times, improve employees’ lives, and reduce the transportation problem.
- **Launch a prize for smart building technologies** to help encourage better integration of technology in building practices.
- **Publish a “tech-friendly city” toolkit.** Help municipalities understand what tech companies

are looking for. Create a toolkit for cities/regions looking to bring greater tech investment to their regions.

Some of the recommendations in this document dovetail with efforts already underway at WTIA, such as an update of the Tech Universe graphic, a collaboration with Madrona Venture Partners, that helps amplify the Washington technology brand and showcases the rich density of the local tech ecosystem. We are already working to empower adult career transitions and increase the number of women and underrepresented minorities in the tech industry through our Workforce Institute, a pioneering apprenticeship program. Our diversity action committee is developing a graphic directory of local programs dedicated to increasing diversity in tech so those interested in the industry can easily access available resources.

We’re also connecting schools and community organizations with tech leaders through a speakers bureau and curriculum evaluations. We were thrilled to see validation from the broader community and welcome greater engagement on each of these initiatives.

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As a non-profit membership organization, we depend on the support of our members and sponsors to fund the work that benefits us all. If you are a member, we hope you will reach out and offer feedback on the best way forward on any of the ideas in this document. If you’re not a member, but you want to help in some way, please contact us at WTIA.

And if any of these plays inspire you to collaborate - don’t hesitate. Take action! Meanwhile, we will be exploring our top three plays over the coming month and will report out again in November.

Join us as we build forward!

# Overview of Plays

## TALENT BRACKET

**K-12 EDUCATION:** Build a system where students get to decide how they will meet STEM standards required for graduation. We will work with companies, districts, higher education, and out-of-school learning environments to support, empower, and enable student choice.

**HIGHER EDUCATION:** In order to increase statewide capacity, control costs, and ensure a high-quality workforce, create a consortium of education leaders and industry leaders to identify best practices to be shared and implemented.

**CAREER TRANSITIONS:** Open more transparent communications between the technology industry and those exploring career transitions about what opportunities are available, what skills students need to develop, and how they might fund such shifts in mid-career.

**COMPETING WITH SILICON VALLEY:** Engage in a strategic marketing effort to brand the Puget Sound region, just as the Bay Area has become a brand. We have all the things the Bay Area has and more!

**RECRUIT SMARTER, NOT HARDER:** Identify and address the gaps in current recruiting methods, facilitate processes that expose potential recruits to the wide variety of opportunities in our state, and market the region itself, in part by strengthening the community that is already here.

**STARTUP CENTRAL:** Create a centralized, cohesive brand and voice for Seattle startups to initiate a regional movement that results in a more globally recognized entrepreneurial identity. Aim this effort at the early-stage founder community and showcase Seattle as the ideal place to build a company and live a healthy, happy life.

## ECOSYSTEM BRACKET

**LAND USE & REAL ESTATE:** Ensure that, as we grow, our land use policy preserves a diversity of industries in our region in the present and protects the existing productive uses of land for the future.

**TRANSPORTATION:** Focus on improved communication among government, employers, and residents; advocate for transit infrastructure upgrades; and pilot innovative commute-reducing options.

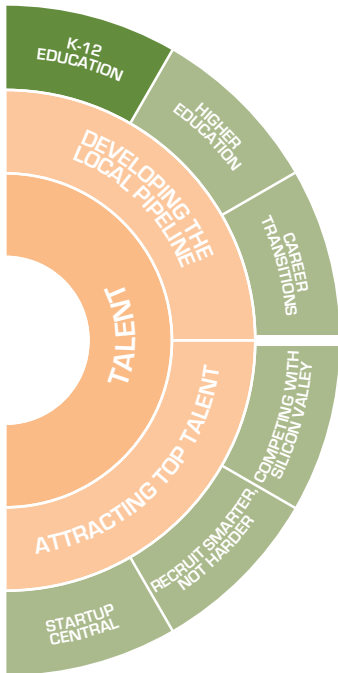
**CONNECTIVITY:** Form a state-level council on connectivity that includes voices from the technology industry as well as government and the community.

**COMMUNITIES & NEIGHBORHOODS:** Form a "dream team" of social, government, and technology representatives to create a vision for more livable neighborhoods by 2035 incorporating transportation, housing, cost of living, diversity, and economic equity.

**DIVERSITY & DISRUPTION:** Incorporate targeted efforts to increase diversity in tech from the K-12 level through venture capital funding, hiring & recruiting, and beyond.

**CREATIVITY & INNOVATION:** Create a consortium of education, industry, health, open spaces, transportation, and energy leaders/influencers to form the Innovation Foundation as the keeper of the Washington state innovation vision.





HOW CAN WE ENSURE THAT THE EDUCATION KIDS RECEIVE IN K-12 BUILDS THEIR INTEREST IN STEM, PREPARES THEM FOR HIGHER EDUCATION IN TECHNICAL FIELDS, AND SETS THEM UP FOR SUCCESS IN THE TECH LABOR MARKET?

#### Facilitators

- ▶ Jesse Gilliam, Communications Manager, Washington STEM
- ▶ Phyllis Harvey-Buschel, K-12 STEM Program Director, Washington MESA

#### Notetaker

- ▶ Stephanie Hemmingson, University of Washington

## PLAY

Build a system where students get to decide how they will meet STEM standards required for graduation. We will work with companies, districts, higher education, and out-of-school learning environments to support, empower, and enable student choice.

### SPECIFIC IDEAS:

- Create a definition of “STEM readiness for careers” that includes and goes beyond basic science, lab science, and math courses.
- Explore areas of opportunity within the core curriculum for STEM electives such as robotics courses, internships, and offer students self-driven choices about how to explore STEM.
- Develop courses appealing to girls and students of color.
- Convene stakeholders across the pipeline, including higher education and companies, to develop and fund solutions that we can actually apply.

### GUIDING PRINCIPLES:

- Access, especially making sure that we focus on solutions that scale beyond a single community
- Relevance, education in STEM that creates many potential future pathways, both to existing and future careers
- Partnerships, including with industry and with communities, that go beyond just pushing software to the next generation of users
- Support for teachers, who often lack these skills themselves
- Agency of students, allowing them to drive their own careers
- Inclusivity, including by marketing opportunities specifically to girls

“IT’S NOT JUST STUDENTS THAT NEED SPACE TO PLAY AND DABBLE, IT’S ALSO TEACHERS. THEY NEED EXPOSURE OUTSIDE OF JUST ACADEMIC/TEACHER CONFERENCES, THE ABILITY TO EXPLORE NEW OPPORTUNITIES.”



# HOW THEY GOT HERE

This group took a good look at the realities of Washington State's K-12 education system as it is today, including how well it's preparing students for the jobs of the present and the future. They noted several obvious challenges, such as budget shortfalls, inadequate support for teachers, and the limitations of one-off programs. They also found some room to innovate and got energized by potential solutions that put students in the driver's seats of their own education.

They wanted to get a clearer understanding and create a vision of what a successful high school graduate would look like, in workforce terms, noting that we have rigid standards for math and science as individual areas of knowledge but no sense of what "STEM readiness" really means. The absence of clearer, more relevant standards for STEM education appeared to them to be an obstacle to adaptation. They also noted that the best-prepared students won't just be the ones who are trained in how we solve

problems now, but who have the foundational education that will create many future pathways as the world continues to evolve.

"DON'T IGNORE THE SMALL COMPANIES BY FOCUSING TOO MUCH ON THE UPPER ECHELON OF TECH."

One idea was to work within the State's current core requirements by allowing certain electives to be replaced by internships and other innovative out-of-school learning projects. Something like a "Running Start" program, but for STEM, would allow students to choose projects and explore areas of learning that most appeal to them. They pointed out that this approach does not create a hierarchy in which math and science are more important than the other elements of an education. Rather, a STEM-focused project can integrate elements of the humanities, social studies, and the arts. Another example they

offered was robotics, a field that's both in-demand and cuts across math, programming, engineering, creativity, and sociology.

It was noted that teachers often lack STEM readiness skills themselves. The group felt it was unfair to ask teachers to teach or creatively integrate into the curriculum what they themselves have not had the opportunity to learn. They explored the potential for partnerships with local companies, and not just the big firms. One participant noted an example from Eugene, where small and mid-sized companies got involved in local schools, providing mentors and volunteers.

Two things were clear to this group: First, Internet use is an expectation for the workforce of the future, no matter what industry students enter. Second, STEM readiness is essential to both career readiness and life readiness. It will be hard for graduates to survive in the near future if they don't graduate literate in code.

## HOW CAN WE IMPROVE HIGHER EDUCATION IN WASHINGTON STATE TO BETTER MEET THE NEEDS OF THE TECH-DRIVEN ECONOMY?

### Facilitators

- ▶ Paula Boyum, Associate Dean, Northeastern University-Seattle
- ▶ Anson Fatland, Associate Vice President for Economic Development and External Affairs Washington State University

### Notetaker

- ▶ Domenica Mata, University of Washington

## PLAY

In order to increase statewide capacity, control costs, and ensure a high-quality workforce, create a consortium of education leaders and industry leaders to identify best practices to be shared and implemented.

### SPECIFIC IDEAS:

- Create focus areas, including career opportunities and pathways, curriculum quality and delivery, diversity and access, integration of experiential and project learning, and collaboration between industry, higher education, and the K-12 system.
- Create a standard taxonomy of jobs and sub-fields within STEM/tech.
- Create a forum for educators and hiring managers to share information, common struggles, and best practices.
- Develop career fairs that are for multiple colleges or across the region, where CS graduates from all schools can meet with potential employers.

### GUIDING PRINCIPLES:

- Diversity and access. Look specifically at how programs are impacting women and students of color, understand why they self-select out, and take targeted steps to address this.
- Maintaining quality. Look for cost-effective ways to increase capacity that don't just graduate more people in terms of numbers, but actually fill the pipeline.
- Student preparation. Ensure that the education students receive prepares them for the jobs they need.
- Equity among programs. Level the playing field in a way that's cost-effective and win-win-win for employers, schools, and students.
- Connecting the pipeline from high school all the way through to hiring.
- Student agency. We will be successful when students from all backgrounds self-select into STEM fields.

“STUDENTS NEED TO SEE BEYOND VIDEO GAMES TO THE FULL VARIETY OF OPPORTUNITIES THAT EXIST IN THE TECH INDUSTRY AND BEYOND FOR THOSE WITH THE RIGHT SKILLS.”

# HOW THEY GOT HERE

The first big challenge this group tackled is: How can we generate student demand for STEM learning? The primary issue is the “leak in the pipeline,” meaning the number of students who start with an interest in a STEM field but self-select out before finishing, which includes a high percentage of women and students of color.

Generating interest in STEM has to start further down the pipeline. High school students should understand how a strong foundation in STEM and computer science opens up many opportunities, not just in programming. College faculty could support the K-12 system in this effort by linking up with high school teachers. In communities where exposure to tech jobs is relatively low—including nearby cities such as Tacoma—this effort must be deliberate. Students in low-opportunity/low-income districts need information brought to them. Similarly, young women and communities of color need targeted outreach if they are to flow into the pipeline and be successful.

At the same time, a crucial component of higher education is the freedom students have to explore their interests, not just to find a stable career path. Students should know about the range of opportunities available in tech and receive a foundational education in STEM, while still having room to explore other areas. Some form of digital literacy should be a core requirement of any general education, but technical studies should not be mandated beyond that.

The second big challenge they explored was: How can we increase the capacity of existing programs without dramatically increasing their cost and/or diluting their quality? They noted that these are the issues administrators face when hiring faculty and developing curriculum.

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positions.

Finally, the group asked: How can we support foreign students? Currently, STEM graduates from overseas can extend their stay in the United States for up to 17 months on a H1 visa, but this program is under threat. Many students in the UW Foster School of Business MS in Information Science program, for example, are partners on dependent visas who hope to join their spouses in tech companies upon graduation. Losing this visa category would not only deprive companies of potential talent but reinforce the gender gap, as many of those on dependent visas are women.

“THE LINK BETWEEN THE EDUCATION SYSTEM AND THE PIPELINE NEEDS TO BE RECONNECTED IN A WAY THAT DOES NOT REINFORCE EXISTING INEQUALITIES.”

One approach suggested was to engage in project-based learning. They asked whether WTIA could become the connector between schools and industry, perhaps resulting in corporate engagement on capstone projects or research, which would not require a rewrite of existing curriculum. Teaching partnerships are another potential approach. They also noted that technology and higher education could be joining forces and lobbying together for more public funding for STEM.

The third big question they asked was: How can we connect graduates to careers? Currently, there is a huge gap between graduation rates and hiring, especially for women and students of color, who are finding it even more difficult to find employment, even when graduating with tech-relevant degrees. Creating a common taxonomy for degrees, certificates, and jobs could help with this immensely. It would allow schools to specialize, students to select the programs that best fit their future goals, and employers to know where to go to recruit for specific

# CAREER TRANSITIONS

HOW CAN WE QUICKLY BUILD OUR TECH TALENT POOL AND PROVIDE RETRAINING OPPORTUNITIES FOR ADULTS IN CAREER TRANSITION?

## Facilitators

- ▶ Ken Hang, Program Director and Instructor, Software Development, Green River College
- ▶ Sam Hamm, Instructor, CS & Web Development Boot Camp, Code Fellows

## Notetaker

- ▶ Alec Lindberg, Northeastern University

## PLAY

Open more transparent communications between the technology industry and those exploring career transitions about what opportunities are available, what skills students need to develop, and how they might fund such shifts in mid-career.

## SPECIFIC IDEAS:

- Convene technology industry leaders to develop a new taxonomy for jobs, with the goal of making it easier to transmit information on potential career paths to jobseekers, and keep it up to date.
- Develop tools to facilitate communications between education and industry. This feedback is vital to delivering effective training to students.
- Develop a centralized guide of information on potential funding sources for students in transition into the tech industry, and in such a way that makes a distinction between need and income as pertains to students in career transitions.
- Explore, with lawmakers, alternate criteria or supplemental programs for adults who need financial aid in order to prepare for needed jobs.
- Develop career fairs that are for multiple colleges or Seattle-wide, where CS graduates from all schools (not just UW) can meet with potential employers. Level the playing field.

## GUIDING PRINCIPLES:

- Transparency. Students and educators want to be prepared for the workforce, but they need to have a better understanding of what the industry needs.
- Preventing unemployment. Many jobs are at risk, and many adults are already seeking career transitions. In order to prevent these adults from ending up unemployed, we need to take proactive steps to support their transitions.
- Equity. Many existing teaching methods and career pathways are designed around a specific type of student, typically young and male. This makes it even harder for adults, especially women, to transition successfully.

“WHEN A WASHINGTON RESIDENT IS ABLE TO SUCCESSFULLY TRANSITION CAREERS, IT’S A WIN-WIN-WIN – FOR EMPLOYERS, FOR THE PERSON, AND FOR THE STATE.”



# HOW THEY GOT HERE

We know that filling the tech talent gap is going to require retraining adults who are currently in professions where jobs are dwindling. Last year, more than 60,000 people were seeking to transition careers in Seattle and King County alone. However, there are a number of obstacles that prevent this from happening effectively and at scale.

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required to fill them, educational institutions and the workforce can shift their investments toward the right approaches.

Second, adults pursuing higher education again or for the first time have unique financial needs. Many have families to support, prior student loans to pay off, and other constraints that prevent them from being able to live like typical college students. While many are willing to work hard to earn an income while staying in school, this often takes them out of qualification for grants, scholarships, and financial aid under FAFSA criteria. Supporting them will require new mechanisms and increased outreach about existing opportunities.

Third, the group looked specifically at structures and stigmas that make it more difficult for adults to successfully transition careers. Many of the existing hiring pathways focus exclusively on younger workers leaving traditional programs. For example, it is more difficult for adults to qualify for internships. The group suggested rethinking this pathway, perhaps with an apprenticeship model that integrates training and hands-on experience.

Finally, the group noted that making the transition into STEM can be very challenging and require a longer-term commitment to education. It may simply be that some people who are currently in short-term certificate programs will be more successful, and more essential to the economy, in other capacities. The more transparency there is about what tech jobs are and what it takes to fill them, the better off employers, workers, and the state will be.

First, there's no clear information about what, exactly, employers are looking for and how people can retrain themselves to fit the bill. It was clear to this group that a programming certificate is insufficient for most employers. Also, with technology progressing so rapidly, it seems that learning one language is not enough. Students need to master the fundamentals, but they are not always aware of that.

Compounding this is the fact that different companies use different job titles to express the same thing. This can be confusing for someone just getting started in a career. By receiving clear information about what employers really need, where the gaps are, and what sort of education is

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# COMPETING WITH SILICON VALLEY

HOW CAN WE BETTER COMMUNICATE WHAT OUR REGION HAS TO OFFER IN TERMS OF BOTH LIFESTYLE AND WORK OPPORTUNITIES?

## Facilitators

- ▶ Rick Noji, Director of Business Management, Green House Data
- ▶ Jovana Teodorovic, Director of Talent, Socrata

## Notetaker

- ▶ Logan Hoerth, Green River College

## PLAY

Engage in a strategic marketing effort to brand the Puget Sound region, just as the Bay Area has become a brand. We have all the things the Bay Area has and more!

## SPECIFIC IDEAS:

- Design a campaign to brand the Puget Sound at a regional level.
- Convene an exploratory committee to figure out a cost structure that would make this work as a collaboration among the different companies. Look to initiatives like OneRedmond as precedent for regional branding.
- Get data. Who's turning down jobs here, and why? What's actually missing from our region, in reality as well as in their imaginations?

## GUIDING PRINCIPLES:

- Regional unity. As a group of cities and economies we are stronger, more marketable, and more innovative than any one city or company alone.
- Differentiation. We have our own unique culture, different from Portland or San Francisco. Instead of trying to compete, we should embrace what makes us different and communicate it well.
- Pride. We have the most educated labor force in the country and the nation's top enterprise and e-commerce companies.

“THE MORE WE INVEST IN MENTORSHIP, COMPANIES HELPING EACH OTHER, AND ENTREPRENEURS HELPING EACH OTHER, THE BETTER.”

# HOW THEY GOT HERE

First, this group defined the region they wanted to focus on, looking not only at Seattle, but the entire Puget Sound region, all the way south to Tacoma.

Second, they looked at what differentiates the Puget Sound from Silicon Valley, in terms of both work and lifestyle. For example:

**Venture capital:** While it's true that 90 percent of venture capital comes from and stays in the Bay Area, that only tells part of the story of what it's like to do business in the Puget Sound. It is easier to stand out in Seattle, and it only takes 90 minutes to fly from here to the Bay. We have not seen any evidence that access to capital is truly a problem for Seattle businesses.

**Culture & lifestyle:** Seattle is not a place where everyone is just trying to impress one another. People are more humble. Also, it's a lot easier to get to great outdoors activities from here.

**Talent & expertise:** Our enterprise and e-commerce companies here are the best in the country. We have the most educated labor force in the country and an incredible pool of tech talent.

They talked about what it would mean for our region to build a truly regional identity, noting a few things that were raised on the "Attracting Top Talent" panel – such as the relative lack of mentorship and community support here. They settled quickly on a working motto for the region that would serve both as an advertisement to outsiders and a call for participants to nurture our local community.

The working motto is, "Build it. Enjoy it. Share it." What they meant by this is:

Build it: Keep innovating and delivering quality products.

Enjoy it: Maintain the lifestyle of healthy work/life balance.

Share it: Be more open to mentorship. Help break through the "Seattle freeze."

Engage in philanthropy. Participate in your community and neighborhood.

The group explored a numbers of ways that we might advance this idea of "Build it. Enjoy it. Share it." throughout the regional economy. One was to form a group around the mission of branding the Puget Sound and articulating its advantages on quality of life, activities, economic opportunity, industry diversity, food, music, etc. The group could aggregate and share their own data about hiring and best practices for recruiting top talent to the region, sharing this information only with other members. The hope is that this group would focus on strengthening the community here to entice new businesses, founders, and funders to choose our region.

Another idea was to create a video campaign that any company could use as a promotional tool, e.g. "A day in the life of a Puget Sound citizen." This could feature the sunrise over the Puget Sound, locally grown food for breakfast, a Sounder train heading in to downtown, the scene inside a software startup, participating in a hackathon, going hiking after work, watching the sunset over the mountains.

Another was to create a map of participating companies, showing their proximity to one another, and overlay the activities available—showcasing how easy it is to go skiing, swimming, hiking, etc. after work or on weekends.

All of this could be combined in a website that would showcase this information and show off the community.

"WE HAVE THE  
BEST ENTERPRISE  
AND ECOMMERCE  
COMPANIES IN THE  
COUNTRY HERE."

# RECRUIT SMARTER, NOT HARDER

HOW CAN WE WORK TOGETHER TO IMPROVE THE WAY WE RECRUIT OUT-OF-STATE AND INTERNATIONAL TALENT? HOW MIGHT WE BETTER RECRUIT AND RETAIN LOCALLY AS WELL?

## Facilitators

- ▶ Jeff Hebert, VP of Engineering, Synapse Product Development
- ▶ Mikkell Roeland, Relationship Manager, Modis

## Notetaker

- ▶ Trupti Gadgil, Green River College

## PLAY

Identify and address the gaps in current recruiting methods, facilitate processes that expose potential recruits to the wide variety of opportunities in our state, and market the region itself, in part by strengthening the community that is already here.

## SPECIFIC IDEAS:

- Create a series of career fairs for WTIA member organizations, focused on bringing together pre-qualified candidates—including students, recent college grads, as well as existing people within the workforce—from within Washington State, out-of-state, and internationally.
- Create a recruiting portal on the WTIA website that exposes potential hires to a number of new companies.
- Encourage Seattle to actively invest in a tourism board, encouraging more people to visit the region and ensuring they have a positive experience while here.
- Consider job-sharing and other flexible programs for working mothers and others who do not fit the typical profile.
- Work with SME tech employers and smaller colleges/programs to identify opportunities for collaborative recruiting, committing to hosting at least one event and sharing out the results in terms of hires, connections made, and feedback from all participants.

## GUIDING PRINCIPLES:

- Enable the human element in the recruiting process.
- Consider the needs and wants of the candidates outside of work.
- Think not only about the potential hire, but their family as well.
- Create pathways for non-traditional workers, including more flexibility for working parents.
- Ensure that smaller companies remain able to compete for talent.

“WE ARE STRUGGLING TO FIND ROCK STARS. SHOULD WE LOWER OUR EXPECTATIONS, AND INCREASE IN-HOUSE TRAINING?”



# HOW THEY GOT HERE

Much of the discussion in this session built on challenges discussed in the morning, such as:

- finding people with the right level and specialization of technical skills to fill the jobs we have here,
- finding people right out of college or career retraining programs who are ready to go without significant on-the-job training,
- competing for top talent, especially as a smaller employer.

“TALENTED  
WORKERS DON'T  
WANT TO BE COGS.  
THEY WANT TO  
HAVE A PASSION  
FOR WHAT THE  
COMPANY IS  
TRYING TO DO.”

Let's start by looking at things from the recruiters' point of view. Often, the recruiters who are trying to matchmake candidates to employers are just as uncertain about what employers want as the candidates they support. Many hiring managers use vendor management systems (VMS's) as an intermediary between them and recruiters. As a result, both the unique needs of the hiring company and the unique skills of candidates are lost in translation, and everyone ends up frustrated.

From the candidates' point of view, there's more to taking a job than the job itself. Many top recruits also want to live in communities with a vibrant arts & culture scene. They are often looking for employee-friendly labor policies, such as maternity leave and flexible work hours. Their spouses and families are part of the equation as well.

A key insight from hiring managers' perspective is that they are often frustrated when the top recruits don't learn the company's specialized

needs fast enough. The general consensus seemed to be that some level of time and training within the company is necessary to succeed on the job in a specialized position. At the same time, tech workers are frustrated by the lack of coaching and mentorship. They want to work for companies whose mission they believe in, and the companies, similarly, are looking for people who believe in what they are trying to do. This kind of information is not typically captured in a job posting or a resume.

With these insights in mind, the group split into four teams that each proposed new ideas:

Team 1: Create a matching tool to remove the first step in the recruiting process. In the large pool of applicants, narrow the group by finding the best fit via this tool.

Team 2: Exclusive interview or career fair. Gather a variety of small companies, pool resources, bring in people from out of state for a speed-interview day. Applicants will be chosen or found by recruiting measures, then we invite the best to Seattle, thereby selling the city as well as the company, etc.

Team 3: Create a WTIA portal for grads, and recruit more local talent from community colleges. The portal will filter, search, and communicate between small companies and grads.

Team 4: Combine all the ideas above. Have a portal that identifies top candidates, then invite select few to Seattle for a career event to interview with a number of companies in one or two days.

The summary of all these discussions is captured in the final play.

## HOW CAN WE ATTRACT TOMORROW'S TOP ENTREPRENEURS—AND ENCOURAGE THEM TO START THEIR BUSINESSES IN SEATTLE?

### Facilitators

- ▶ Nick Hughes, Entrepreneur, Knotis
- ▶ Martina Welke, Founder & CEO, Zealyst

### Notetaker

- ▶ Trupti Gadgil, Green River College

## PLAY

Create a centralized, cohesive brand and voice for Seattle startups to initiate a regional movement that results in a more globally recognized entrepreneurial identity. Aim this effort at the early-stage founder community and showcase Seattle as the ideal place to build a company and live a healthy, happy life.

### SPECIFIC IDEAS:

- Create a simple online resource to tell Seattle's story, including a template for crowdsourced video stories of Seattle area startup, to be published regularly and promoted through social and traditional media.
- Create a branded Seattle Startup Welcome Kit and build a volunteer-driven tour for visitors so they quickly get acquainted with the tech scene.
- Build a Startup Briefing Center that visitors can visit and connect directly with the local community.

### GUIDING PRINCIPLES:

- Put the community first
- Create an authentic atmosphere
- Take inventory—focus on what's already here that is attractive to entrepreneurs
- Make people feel like they can create an impact
- Elevate the visibility of the startup scene
- Find Seattle's story and tell it around the world

“SILICON VALLEY BECAME SILICON VALLEY DUE TO MULTIPLE GENERATIONS RECYCLING THEIR MONEY IN STARTUPS.”

# HOW THEY GOT HERE

This group asked a lot of crucial questions about what we might want in the local startup scene—and, more importantly, why. They started with a simple question: Why do we want more entrepreneurs?

Interestingly, the group discovered that net job creation comes from startups, not from Fortune 500 companies, and most companies don't continue to grow unless they're acquired. Startups create jobs and sometimes new industries, growing the overall economy. Also, startups tend to beget other startups,

“[IN TERMS OF  
STARTUPS,]  
SEATTLE IS STILL  
YOUNG.”

inspiring future entrepreneurs and reassuring would-be founders that the infrastructure is here.

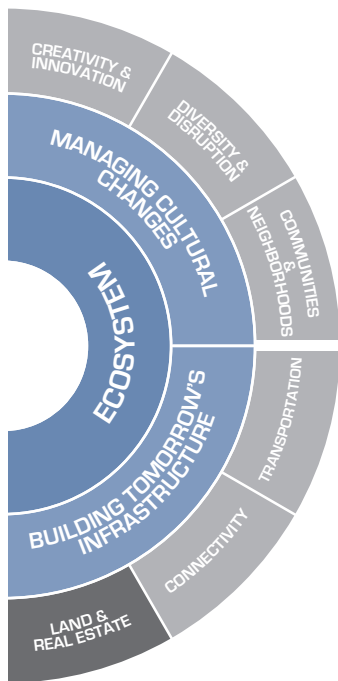
Also, growth begets growth; when there are more startups, this affirms the infrastructure of talent and funding, making potential future entrepreneurs feel more secure. It's also crucial for startups to recycle money over generations, investing in the new crop. This is how Silicon Valley became what it is today; by comparison, Seattle's scene is young.

What's required for startups to grow? This group came up with five core criteria:

1. An innovation-friendly culture
2. Access to capital
3. Surfeit of talent
4. Government regulation that creates opportunities
5. Density

Ultimately, this group decided that it was crucial to invest in scaling up the startup community here, largely through communications—opening up opportunities to would-be entrepreneurs locally and from all over the world. They encouraged us to focus on a campaign of some kind (e.g. “What happens in Vegas, stays in Vegas”) highlighting all that the greater Seattle area has to offer.

# LAND USE & REAL ESTATE



AS DEMAND FOR BOTH COMMERCIAL AND RESIDENTIAL SPACE INCREASES, HOW CAN WE ENCOURAGE DEVELOPMENT THAT MEETS SHORT-TERM AND LONG-TERM NEEDS?

#### Facilitators

- ▶ Kraig Baker, Attorney, Davis Wright Tremaine LLP
- ▶ Patrick Pierce, Program Manager, Economic Development, Puget Sound Regional Council

#### Notetaker

- ▶ Sarah Jade, Bellevue College

## PLAY

Ensure that, as we grow, our land use policy preserves a diversity of industries in our region in the present and protects the existing productive uses of land for the future.

### SPECIFIC IDEAS:

- Identify best practices and incentives to encourage the development and preservation of quasi-public spaces, e.g. amenities, incubators, and communities on private land or through public-private partnerships.
- Advocate for and sponsor a prize for the use of smart building technology in the development of residential and commercial real estate, including data transparency, energy efficiency, and smart buildings.
- Advocate, facilitate, and identify best practices to extract, access, aggregate, and visualize government data to foster better public engagement and data-driven decision making in land use and real estate decisions. WTIA could create a collaboration among its members companies to donate tools, time, and other resources to unlock and illuminate government data for Washingtonians.

“PROXIMITY  
FACILITATES  
CREATIVITY.”

### GUIDING PRINCIPLES:

- We don't want to be the next Detroit! Make sure our policies and investments allow for the companies of the future to thrive, not just those that are booming now.
- It's important to preserve diversity and not over-rely on any one sector. We need industry and maritime in addition to tech.
- Understand what people prioritize now while still protecting the existing productive uses of land for the future.



# HOW THEY GOT HERE

This group explored a lot of crucial questions surrounding how space impacts the way that companies and communities grow. For example, startups that began in the University of Washington's Startup Hall just one year ago are already starting to move out and into larger spaces. Both the University and the companies want them to stay in the neighborhood.

“WE CAN'T SEEM TO CROSS THE MOUNTAINS.”

However, what can happen in any place depends on the existing built environment and zoning as well as investment potential. With such high demand for office space and housing, land that transitions away from its current use is not likely to ever go back to how it was. For example, if Interbay transitions away from maritime industrial use, maritime is unlikely to ever return to that area.

That's part of why the conversation about what to do with industrial lands in Seattle and elsewhere is crucial. In PSRC's recent analysis of industrial lands, they discovered that we currently have excess supply in cooler markets in the region, and inadequate supply in hotter markets in the region, such as Ballard-Interbay and SODO.

When it comes to overwhelming demand for tech office space and housing, the group looked at how to “distribute the heat” to other cities that would love more development, such as Lynnwood, Marysville, Bremerton and Kent, but also cities in Eastern Washington. Satellite areas are developing, from Lake Chelan, which has zoning for tech at \$1/sf, to Spokane and the Puget Sound's many islands.

Things that have made a difference for attracting people and companies include strong transportation networks, good public schools, affordable housing, and cheap power. The more that satellite communities can offer in those areas, the more likely they are to receive some of the “heat” that tech growth is creating.

The group explored whether space for startups should be consider a quasi-public good, with cities investing in incubators and other spaces that foster innovation and growth. They also explored how our natural environment impacts us and what we should be thinking about for a sustainable future, asking questions such as, “How many people can this river support?”

Another crucial question is how to involve the community in decision-making without overwhelming government. There was a lot of discussion about how data could help governments and builders make smarter decisions, such as smart building technology and land use and development mapping tools for residents, as well as how to process and integrate community feedback.

“TECH WORKERS ARE MOBILE. THEY'RE THE CREATIVE CLASS. THEY'RE NOT GOING TO MOVE TO THE SUBURBS IF THEY HAVE MORE INTERESTING OPTIONS.”



HOW CAN WE BUILD A TRANSPORTATION NETWORK—REGIONALLY AND WITHIN LOCAL HUBS—THAT SERVES OUR NEEDS IN THE FUTURE AS WELL AS IN THIS PERIOD OF RAPID GROWTH?

#### Facilitators

- ▶ Robin Mayhew, Program Manager, Transportation, Puget Sound Regional Council
- ▶ Stan Suchan, Project Development & Evaluation Manager, Washington State Department of Transportation

#### Notetaker

- ▶ Douglas Johnston, Northeastern University

## PLAY

Focus on improved communication among government, employers, and residents; advocate for transit infrastructure upgrades; and pilot innovative commute-reducing options.

### SPECIFIC IDEAS:

- Accelerate instrumented infrastructure (e.g. data mapping, level of use info) with a unified model to improve decision making and inform the public.
- Establish pilot projects to get retail companies to use big data to promote job swapping within companies (to shorten commutes).
- Support Sound Transit 3.
- Form local committees of tech companies and local government, convened by local chambers to advocate for transportation investment at city, county, state and federal levels.

“PEOPLE  
SWITCH JOBS  
FASTER THAN  
THEY MOVE.”

### GUIDING PRINCIPLES:

- Our transportation infrastructure is critical for business and quality of life.
- Transportation should be accessible to all.
- We need to make investments to preserve and maintain our existing system as roads, bridges, and ferries age and as buses become more crowded.
- There are big opportunities to improve transportation infrastructure through technology.

# HOW THEY GOT HERE

First, the group identified key concerns with transportation, including congestion within cities, the challenge of moving around the Puget Sound, and the fragility of existing systems and infrastructures. They also looked at some of the opportunities that technology affords in this sphere, from better communicating travel information thanks to smartphones, teleworking, and using data to facilitate job-sharing and job-switching.

The members noted that our challenges in the Puget Sound region are many. In addition to geographic obstacles and the limitations of current infrastructure, we are currently facing rapid increases in demand, a system for managing and funding transportation that does not adequately meet the region's needs, a lack of public understanding about that system, and an absence of consensus around how we should approach those challenges.

Right now, it's not just traffic that frustrates residents and workers of our region. Much of the infrastructure is old, creating risks evident in incidents such as the 2013 Skagit Bridge collapse. Ferries are aging. The system lacks redundancies, which means a single accident can shut down movement across the city for hours, like when a truck hauling salmon overturned on 99 earlier this year. With accident-related delays taking up to nine hours to clear and limited means for moving people in and out, the region is vulnerable to many kinds of disasters, with both economic and human costs.

On an everyday basis, the built environment creates challenges for drivers and non-drivers. Communities designed for cars lack the amenities and means of transport to support a generation of workers that is increasingly going car-free. Hills are challenging for cyclists and walkers with limited mobility, who also have safety concerns, and those who do drive are frustrated by the lack of parking and limited lane width on roads and highways.

They outlined some very specific problems as well, such as:

- the lack of a rapid-ride from South King County to Bellevue/Eastside,
- inadequate special needs transportation services,
- limited capacity at existing Park & Rides,
- infrequent transit service to many areas,
- and social/political challenges, such as the lack of consensus around what to build, a perceived fear of technology, lack of funding for mass transit, and slow execution.

In the large group, participants expressed the desire to spend less time on the road and/or to spend their transport time more productively. They defined a successful approach as one that would leave us with faster transit times, better air quality, allow people to get anywhere anytime without changing plans based on traffic, foster a healthier economy, and provide accessibility for all. They want to see a system in which residents, including new residents, can live without cars and still visit friends in a wider radius that includes nearby cities. Reducing transportation-related stress and maintaining fairness across social groups were also crucial.

In the end, they tackled several issues, with recommendations that we look closely at two major areas:

**Funding**, perhaps advocating for congestion pricing, supporting ST3, supporting online retail taxation earmarked for local projects, and designing committees to come up with solutions at all levels (federal, state, and local)

**Infrastructure**, including providing information about the conditions of local infrastructure to those who use it, thinking more broadly about the Puget Sound when we consider rail, and local tech businesses in neighborhoods that are investing in infrastructure.

Although it would be difficult to form local committees, the consensus was that this would have a huge impact.



HOW CAN WE ENSURE THAT OUR REGION HAS THE CAPACITY TO SERVE AN INDUSTRY AND A POPULATION THAT ARE INCREASINGLY DEPENDENT ON LOW-COST, HIGH-SPEED INTERNET?

#### Facilitators

- ▶ Sabrina Roach, Doer, Brown Paper Tickets
- ▶ Karen Perry, Principal Consultant, Digital, Policy, and Community Programs, Clarion Collaborative

#### Notetaker

- ▶ Bari Martin, Bellevue College

## PLAY

Form a state-level council on connectivity that includes voices from the technology industry as well as government and the community.

### SPECIFIC IDEAS:

- **Connectivity and Asset Assessment:** We will gather and assess current data related to broadband deployment and asset availability and will advocate for ongoing state funding to track and assess broadband connectivity and to surface the availability of state and government assets (like towers and rights of way) that could support additional wireless and wireline deployment. The Connectivity Council will stay engaged with this work as partners and collaborators.
- **Connectivity Vision and Ecosystem Plan:** We will create a statewide connectivity vision statement that is inclusive of diverse needs, like community access and business concerns. This experience design will be informed by the state assessment and will include implementation goals and definition of connectivity success metrics. We would expect to engage the broad WTIA ecosystem in realizing the vision.
- **Connectivity Resilience, Redundancy and Security:** We will recognize that resilience is a vital part of connectivity and we will ensure it is part of regional planning. We will provide tools and education opportunities to help members plan and respond.

“CONNECTIVITY  
IS AN ENABLER  
AND AN  
ACCELERATOR.”

### GUIDING PRINCIPLES:

- Connectivity should be all-encompassing, including wireless, home, institutional, commercial, and educational needs.
- Internet should be affordable, accessible, and high quality.
- Connectivity drives innovation.

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# HOW THEY GOT HERE

First, this group asked why connectivity was so important for the goals of WTIA, our regional economy, and our community. They identified several areas of focus:

*Seattle's brand and reputation.* We have two of the world's largest cloud providers based here in the state. We should be considered the "world's most connected city."

*Education.* Students everywhere need to have access to great content and learning tools, and today's skills can't be developed on a slow connection.

*Household Internet connections.* Everything from education to social activities to work runs online now, which means households need access in order for their members to participate.

*Redundancy and resiliency.* In addition to protecting privacy and connectivity, the system should be able to handle big risks and natural disasters. Also, in the event of transportation issues, broadband helps people and organizations stay connected.

*Managing and supporting growth.* High-speed Internet can open up new geographic areas of the state for tech businesses. Broadband is a base requirement for supporting growth.

*Deconflicting with construction.* Digging new roads and new real estate can often interrupt connectivity for others.

*Citizenship.* For residents to connect to government services, access information, telecommute, or to apply for jobs if unemployed, they need reliable access.

*Equity.* We should look at who has access, both from a financial and structural point of view as well as a skills perspective. Not everyone knows how to use devices.

*Reliability.* Dropped calls and missed texts have a real impact on the ability to do business.

The group also pointed out that connectivity has driven a shift in culture, where we are much more mobile and expect others to be so, too. Increasingly, everything from government services to making health care appointments to getting jobs depends on having 24/7 connectivity.

In four smaller teams, they looked at many ideas and approaches.

**Team one** suggested that we invest in urban "hubs" around the state, explore more public-private partnerships, and offer one-time funds for innovation at the state level to those connecting disconnected areas.

**Team two** wanted to close the "consumer information gap" with better tools to help citizens and companies see what's available, helping to level the playing field. They suggested developing best practices for companies to deploy broadband in new areas and decrease friction with government.

**Team three** wanted to see a mapped assessment of connectivity, the development of a mission statement for Washington State along with measurable objectives for services, a risk assessment, an experience map, and the development of a connectivity council to plug into existing initiatives.

**Team four** looked at how we might redeploy unused connectivity, increase competition at the residential level, make it easier for companies to obtain permits, and support companies that help connect disconnected neighborhoods through PR (along the lines of the "Adopt a Highway" program) or an annual prize for connectivity innovation. They also suggested making a "journey map" to understand where the pain points are for residents and business owners.

The group proposed, as a central point of conversation, the development of a "Connectivity Council" to facilitate work at the state level, and developed the three specific suggestions on the opposite page.

# COMMUNITIES & NEIGHBORHOODS

HOW IS TECH GROWTH CHANGING OUR COMMUNITIES AND NEIGHBORHOODS, AND WHAT CAN WE DO TO ENSURE THOSE IMPACTS ARE POSITIVE?

## Facilitators

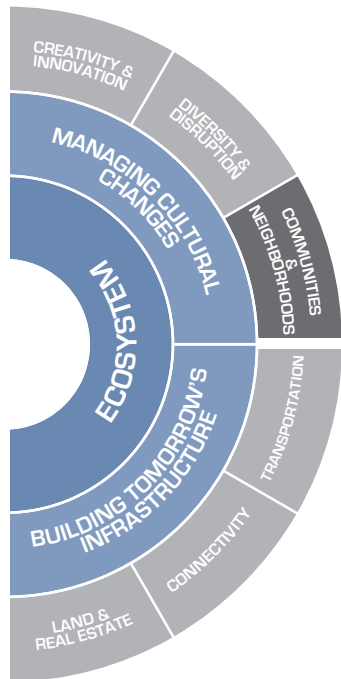
- ▶ Jim Loter, Director of Information Technology, Seattle Public Library
- ▶ Boting Zhang, Housing Developer, Beacon Development Group

## Notetaker

- ▶ Yuliya Mailyan, Seattle Pacific University

## PLAY

Form a "dream team" of social, government, and technology representatives to create a vision for more livable neighborhoods by 2035 incorporating transportation, housing, cost of living, diversity, and economic equity.



## SPECIFIC IDEAS:

- Work with philanthropic organizations and foundations to establish priorities for fund-raising and giving.
- Work with industry to establish standards for corporate and individual philanthropy and volunteering, and advocate for tax incentives for paid mentorships.
- Lobby for technology bonds for government, improved immigration laws to help families of tech workers to be fully employed, updating the tax code to better support the digital economy, and simplifying public sector procurement to better support small businesses.
- Assist cities in conducting digital readiness and capabilities assessments, a "gravity map" of technology infrastructure and talent, and will create a package of resources and onboarding tools to help new tech workers and families integrate into communities.
- Sponsor a pilot program with a corporate sponsor to supplement public sector tech salaries with private funding.

## GUIDING PRINCIPLES:

- Ensure that it's feasible for people who live in this area to have families.
- Minimize conflict and maximize connection between those who are employed in the tech economy and those who are not.
- Support education and the public sector so they do not fall behind on technology.

# HOW THEY GOT HERE

First, the group reported their top observations from the morning sessions and their own experience, noting that many of the concerns raised on the panels are visible at the neighborhood level—including increases in opportunity as well as inequities between those employed in tech and those not. Specifically, they wanted to explore:

- how to keep neighborhoods diverse
- managing traffic and transportation
- perceived separation between the “tech class” and the “non-tech class”
- teachers falling behind on technology, unable to live in the neighborhoods where they teach
- small businesses’ challenge in finding affordable space
- impact of housing prices on residents’ decisions to have or not have families

They also pulled out a number of potential solutions that we see reflected in other sessions, including bringing technologists into schools, conducting a digital readiness assessment for small and media enterprises in the city, encouraging tech companies to invest in transportation, funding out-of-school programs, creating incentives for housing investment, encouraging technologists to invest more in the community, and policy-level actions on immigration and the tax code.

In separate groups, they examined two major questions. First: How might we make our neighborhoods more livable? This they defined as closing the economic gap, maintaining diversity, expanding transportation, improving K-12, and ensuring work/life balance. They suggested creating tech bonds for government, direct social investment in the state’s livability, and creating more interactions between government, the technology industry, and the social sector.

Second, they looked at how WTIA could engage through its own dream team, for example, weighing in on development plans, lobbying for a tax code update that fits the digital economy, funding a platform to foster community, helping new companies to onboard and integrate employees into the community. They wanted to see more tech talent in government, toolkits for companies that may want to open satellite offices, and resources for families that move to the area to integrate more easily into their communities.

# DIVERSITY & DISRUPTION

HOW CAN WE ADAPT TO THE DEMANDS OF A CHANGING WORKFORCE, ENSURING THAT OUR COMMUNITIES AND OUR WORK ENVIRONMENTS ARE CONDUCTIVE TO SUSTAINABLE AND EQUITABLE GROWTH?

## Facilitators

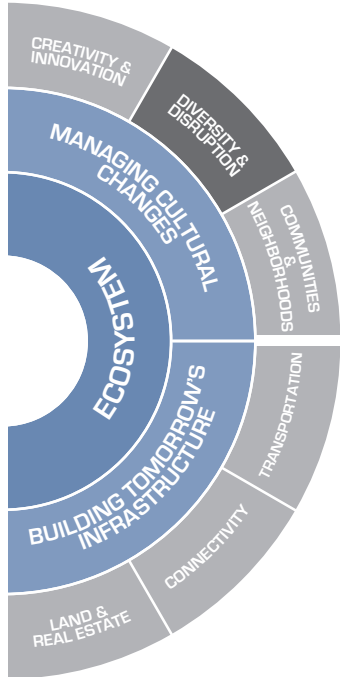
- ▶ Drew Atkins, Writer & Editor, Crosscut
- ▶ Uma Rao, Director of Development and Communications, Technology Access Foundation

## Notetaker

- ▶ Derek Lee, University of Washington

## PLAY

Incorporate targeted efforts to increase diversity in tech from the K-12 level through venture capital funding, hiring & recruiting, and beyond.



## SPECIFIC IDEAS:

- Create and implement a comprehensive marketing campaign, targeted both at industry – focusing on the concrete benefits of a diverse workforce – and students in the K-12 system – focusing on making STEM education both accessible and a cool career choice.
- Spearhead a voluntary industry agreement focused on venture capitalists and other funders, who agree to tie their continued financial support of companies to specific diversity criteria.
- Examine existing best practices for sponsorship of individual schools and districts, targeted specifically at those serving underrepresented populations, and create a roadmap for sponsorship opportunities for companies of various sizes.

## GUIDING PRINCIPLES:

- Outreach on all sides. Tech companies need to better understand the needs of minority populations, why their company may be struggling in this area, and the benefits of having a diverse workforce. The same goes for candidates, who need to have a better understanding of what tech has to offer.
- Incentivize transparency. Whether it's attached to government funding, VC funding, customer acquisition, or other things companies already want, we should find ways to incentivize both having a more diverse workforce and publishing more transparent data about the makeup of the current employee pool.

“NOT TURNING SOMEONE AWAY IS DIFFERENT THAN REACHING OUT TO THEM.”

## HOW THEY GOT HERE

First, the group examined the driving factors behind the current lack of diversity in the tech industry, noting a huge range of issues. Some of the challenges are more technical, such as the fact that there are matching scholarships for four-year university attendance but not for code schools. The lack of STEM in early education is also a technical challenge.

“BUILDING DIVERSITY OUT WHEN YOU’RE AT 20 PEOPLE IS EASIER THAN WHEN YOU’RE AT 200 PEOPLE.”

Others are sociocultural, such as the general lack of awareness within tech companies of minorities’ needs, and the perception in many communities of color that tech isn’t for them. According to the group, media representation writ large as well as social media backlash tend to reinforce those perceptions. The group also explored unconscious bias, which is different from discrimination but can have the same impact, and asked whether employers understand this concern.

They looked at diversity from the perspective of a tech manager who is primarily focused on culture fit, examining why diversity is crucial. They focused on the fact that consumers of tech products are typically diverse, noting that unconscious bias can actually impact the design of a product and make it less likely to work for consumers who aren’t of the same mind as the developers. Hiring people from diverse backgrounds has led to many companies breaking into new markets.

They also thought about what legislators’ primary concerns might be, noting that divisions lead to civil unrest, but that our tech industry does have the ability to take steps now that could have a significant positive impact on our communities.

As top goals, the group agreed that education should be foremost. They want to reduce company secrecy surrounding their internal diversity, make it easier for employers to discover diverse talent, promote incentives for diversity, and create more connections between tech employees and schools. They noted that there are existing models, such as mandates for gender diversity in healthcare attached to government funding, as well as potential tax breaks for investors who focus on diversity on teams.

The consensus was that if investors prioritize companies with diverse teams in startups, companies will go the extra mile to hire women and minorities. They also wanted to explore public-private partnerships between tech companies and school districts.

“TECH SERVES AS A SOCIAL MOBILITY LUBRICANT.”



# CREATIVITY & INNOVATION

HOW CAN WE ENSURE THAT OUR REGION REMAINS A HOTBED OF INNOVATION IN A NUMBER OF AREAS?

## Facilitators

- ▶ Ruby Love, Chief Impact Officer, VentureScale
- ▶ Shawn Mills, CEO, Green House Data

## Notetaker

- ▶ Shristhy Naidu, Green River College

## PLAY

Create a consortium of education, industry, health, open spaces, transportation, and energy leaders/influencers to form the Innovation Foundation as the keeper of the Washington state innovation vision.

## SPECIFIC IDEAS:

- define it as a pilot program
- ensure continuous learning and quick iteration
- give it a clear time frame
- ensure a unifying vision
- identify courageous leaders

## GUIDING PRINCIPLES:

- Place matters.
- A thriving ecosystem involves a positive environment.
- We need balance across multiple industries.

“WASHINGTON STATE STRIVES TO OFFER THE BEST LIFESTYLE WHERE BUSINESS & EDUCATION THRIVE IN AN OPEN, CONNECTED, INNOVATIVE COMMUNITY.”

SPONSORED BY:



# HOW THEY GOT HERE

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First, this group defined their terms.

***Innovation is:***

- revolutionary, disruptive, transformative, and convergent
- sourced from social interaction
- more than technology, as it leverages technology

***Creativity is:***

- fostered by interaction of people from different backgrounds
- the freedom to imagine and then express imagination
- courageous acts, radical thinking

They noted that, while creativity can start with a single person, innovation is usually a team effort. They also noted that our region is home to many large institutions that can slow the path to creativity & innovation.

They decided that we need to concentrate and maximize our limited resources, identifying our “secret sauce” and addressing obstacles to creativity, starting at K-12 with investments in literacy and leadership. Protecting diversity of jobs, living spaces, and other resources is crucial. They also expressed a need for our open spaces to be retained and sustained. They settled on the idea of an “Innovation Foundation” that could activate city challenges.

# A SPECIAL THANKS



We owe thanks to everyone who gave us their time, resources, and energy to make this event possible, including:

- WTIA Board Members, especially Sarah Bird, Dave Cotter, Suzanne Dale Estey, Anson Fatland, Trish Millines Dziko, Heather Redman, Shannon Swift, and Tayloe Washburn.
- The small group of risk-taking sponsors who contributed financially to help us make this event possible: Tableau, CenturyLink, Green House Data, SMART kapp, Microsoft, Tagboard, Code Fellows, Hitachi, the Washington State Department of Commerce, Delta Airlines, Alaska Airlines, and ArcMedia Studios.
- Our outstanding advisory committee, who did far more than just advise us—they helped us develop the framework, bracket, content, speakers, and facilitators, and recruited top-notch participants from around the state.
- Our moderators and panelists, who helped us to shape the content of the entire day.
- Our facilitators, a truly extraordinary group of people from across the community who are personally and professionally committed to our state's well-being.
- Last but not least, our FullConTech participants—the authors of this report. We were fortunate to have an incredibly diverse range of perspectives and ideas in every room. Beyond that, each participant was willing to listen, share, learn, and truly collaborate for solutions that can help us all. Thanks to them, we have a much stronger sense of what we need to do for the long-term health of our tech-driven economy and how we can best engage.

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