Team 2 – Digi Sherpas

**Innovation Priority:**

The digital transformation of organizations will change how work is conducted and service is delivered. Understanding the disruptive potential and opportunities is critical to ensuring the development of the workforce.

**Moonshot:**

Upskill and right-skill the State of California workforce to deliver governmental services in an exemplary manner by creating an agile environment to bridge the digital divide.

**Introduction:**

In some California State agencies, employees are unable to work from the field; they’re still tied to offices across town, and customers looking to interact with their government are forced to stand in lines or clog phone lines to get access to services. In a rapidly evolving digital age, citizens expect on-demand services. Voice activated “Digital assistants” from Amazon (Alexa), Apple (Siri), Google (Google Now) or Microsoft (Cortana) are in millions of American households. The State of California—home of Silicon Valley and the fifth-largest economy in the world—is starting to examine the impact of Artificial Intelligence (AI), automation, and the resultant Technology-Induced Displacement of Employees (TIDE) more closely.
Some State governments are adopting similar types of technologies to better serve citizens’ needs. For example, Mississippi has integrated a digital assistant offering into its MyMS.com platform to help residents on tasks such as vehicle registrations, license renewals and paying taxes, and is exploring new ways to expand the initiative. Utah has launched a driver’s education testing program using a digital assistant as a “training buddy” for those preparing to take their written driving test.

However, California State government’s effort to make the digital transformation is hampered by cultures, processes, and skill sets that are out of step with a technologically advanced, citizen-centric era. The Digi-Sherpas Team’s moonshot - upskill and right-skill the State of California workforce to deliver governmental services in an exemplary manner by creating an agile environment to bridge the digital divide - explores this huge problem and a re-imagined solution to the problem. Innovative ideas were examined by the Digi-Sherpas Team that can shift approach and outcomes of people, processes and technologies to make that solution possible. Breaking through silos to cross-pollinate people and resources across State agencies and departments in the State government and collaboration with technologically advanced private companies emerged as key solution principles.

One first step is to engage in change management activities that shape, encourage, and incentivize development of collaboration platforms and technologies that result in desired collaborative behaviors among State employees. These platforms and technologies cannot just be knowledge sharing; they must improve the speed and effectiveness of delivery of services to Californians. Effective collaboration platforms and technologies will support not only how people work today, but how they will need to work in the future. The same collaboration platforms and technologies will thus create new ways for employees to do their work and clearly set California State government apart and attract highly qualified, new talents to join the State government.

But, simply making collaboration platforms and technologies available to State government employees is not enough. The real game-changer over the long-term will be consistent and effective collaboration and partnership with private IT companies to assimilate new technology and business process improvements into State government operations and delivery of services. If these companies start using State government workforce as technology testers of innovative, new products, that would not only result in upskilling the current workforce but also help attract new talents to be a part of the future workforce. Instead of shooting for modest improvements as we have tried to do in the past, we must shoot for the moon and aim high beyond the confines of traditional approaches. To jumpstart this process, we propose the first ever California Public-Private Biennial Technology Innovations Summit (Technology Summit) to review, examine, and develop specific recommendations for implementation to start realizing the moonshot envisioned by the Digi-Sherpas Team.

The proposed Technology Summit is envisioned as the culmination of a series of Regional Networking Sessions (Regional Sessions) to encourage dialogue and nurture relationship among local resource agencies, local/regional technology companies, and the academia to discuss problems faced by local agencies and explore innovative solutions to address those problems. The Technology Summit is intended to bring the local agencies and companies, State agencies and statewide companies, as well as the academia to examine the solutions proposed at the local/regional scale and assess whether the proposed solutions can be made scalable and repurposed for tackling problems having statewide implications. The Technology Summit is also
intended to seek feedback from State agencies and statewide companies on the local/regional scale solutions developed at the Regional Sessions and explore options to fine-tune these solutions, as applicable.

**Urgency:**

Forbes published an article in 2018 that states that of the top 500 companies to work for: 63 are in California, while five are local and city governments. The State of California agencies and departments did not make the list. California is the fifth largest economy in the world, but the State government is currently not the employer of choice among the young generation. To attract new talents, the State government must reinvent itself and send a forward looking message of hope and opportunity: a message that resonates with the nobility of public service, a message that clearly explains the benefits of State government employment including health and retirement benefits, and a message that reinforces the ability of State government employees to utilize the most advanced technologies in their workplace through public-private collaboration.

There are over 300,000 employees in the State workforce and many have been employed with the State for decades. The work done in the State government is always changing and the workforce needs to be agile by adapting to technology changes. For example, in the 80s and 90s just about every home had a traditional landline phone but today the trend has been that use of landlines is declining and most people just carry mobile phones. The reasoning is: why have a phone tied to your house when technology allows you to carry that phone wherever you go? Yet landlines exist even today despite all the new technology. That same concept could be applied to the State government. Yes, there are processes and tools that have been around for decades but there are also new technologies that are available for use. Ongoing advancements in technology necessitates upskilling the current State workforce, providing them with the training, the skills, and tools necessary to meet the technology needs of today and tomorrow. In this way, the needs of the current workforce can be addressed, while setting up the trajectory of adopting new technologies for attracting new talents to build the future workforce of the State government.

The urgency is clearly recognized in Governor Gavin Newsom’s 2019-2020 budget proposal, with reference to the creation of the Office of Digital Innovation:

“**A primary goal of government is the efficient delivery of government services. To further this goal, California must change the way it approaches service delivery and technology investments. Millions of Californians interact with government services every day: residents apply for drivers’ licenses, students compare financial aid options, and small business owners apply for licenses or pay business taxes. Too often, outdated tools and complex systems make these interactions cumbersome and frustrating. Additionally, manual processes and the lack of digital service delivery often require individuals to take time off work and go to a physical office to interact directly with government staff.**”

The lack of digital transformation and upskilling of the workforce has resulted in inefficient delivery of State services that do not meet the expectations of Californians. There is an immediate need to start implementing the necessary measures to reverse this process. In charting a path to reverse the inefficient delivery of services, and usher in an era of prompt and efficient delivery of services to the citizens of California, Governor Newsom’s 2019-2020 budget proposal advocates:
“The state must transform from a passive governance model that largely responds to individual statutory and policy mandates to one that actively establishes measurable customer service benchmarks and leading digital service delivery from a programmatic and statewide perspective.”

Implementing the above governance model, with measurable outcomes and customer service benchmarks, and a user-centric design and feedback loops for delivery of State’s services has never been more urgent than today for creating "a culture of continuous program improvement and 21st-century delivery methods" as envisioned in the 2019-2020 budget proposal.

California must change the way it approaches service delivery through adoption of new technology and collaboration with private companies and the academia. The proposed first ever Technology Summit can help start the new trajectory of delivering prompt, efficient delivery of State services to California citizens.

Opportunity:

The time is now for departments within State of California to take a proactive approach to providing citizen-centric service delivery while maintaining fiscal accountability. Collaborating with private entities and the academia will allow the State to harness the power of academic excellence, venture capital, private resources, and technology such as AI, big data, and analytics. As technology advances and changes the way how we do business, we need to find more effective ways of operating day-to-day operations of the State government. Collaborating with private entities and the academia will allow the State to find innovative solutions to the problems we face and build partnerships with the community we serve. Current processes do not allow the State government to venture for new ideas and concepts but put constraints on using the latest technology trends in the industry. As the State government grows, we struggle to adapt to ever-changing technology advancements and attracting highly qualified talents to the State workforce.

Along with seeking opportunities to build effective and efficient processes within the State government, we also need to build an environment to retain current employees and recruit new employees. Most of the new workforce are millennials, who are usually motivated by a higher purpose, concrete rewards, and the freedom to use advanced technology. The creation of the Office of Digital Innovation and the need to prepare the State government to attract the new generation provide the opportunity to host the Regional Sessions and the Technology Summit to connect the State government more purposefully with private entrepreneurs and the academia including students to explore innovative methods to help solve the problems faced by the State. To create a promising and rewarding future for the state, we must act now and foster a community that embraces technology and innovation. The proposed Regional Sessions and the Technology Summit furnish wonderful venues to explore and advance that future.
To build a culture in the State government that embraces innovation and is agile to changes, we must embed collaborative platforms and technologies deep into processes and encourage collaborative behaviors to radically transform the way the California State government serves its citizens. The Regional Sessions and the Technology Summit will help build a collective culture within the State government by providing a venue to share and advance innovation between agency, department, private enterprise, and academia. The solutions envisioned in the Regional Sessions and the Technology Summit, as they are implemented over time, will lead the State government to become digitally fluent and operationally agile. The opportunity to advance technology and private-public partnership will build cohesive collaborations, effective information sharing, potential for new jobs, and most of all provide on-demand service with a faster response time to all Californians.

**Incentives:**

The incentive for the State to hold the Regional Sessions and the Technology Summit is to foster creation and retention of high-wage, high-skilled jobs through the state, in both public and private sectors. Providing a venue for connecting the State government with private entities and the academia will increase the state’s competitiveness by exploring and implementing innovative solutions to solve the high priority problems faced by the state.

The State government spend huge amounts of money on materials and labor producing and processing paperwork manually. Paper and printer toner aren’t cheap and organizing and filing paperwork is highly inefficient. Currently, the public sector day-to-day activities involve a lot of manual paperwork. With that comes the inconveniences and inefficiencies we associate with government. Sensing the need to address this in their daily operations, private companies are developing solutions for the very problems the public sector is struggling with. Partnerships between academia, public and private entities will allow governments to keep up with private sector advances in promoting a digitally transformed government operations. This transformation will also help free up resources to work on other high priority projects of the government.

An incentive for the State government to host Regional Sessions and the Technology Summit is to engage in public participation—where citizens help shape and implement government programs—is a foundation of open, transparent, and engaging government services, as envisioned in Governor Newsom’s 2019-2020 budget proposal. From emergency management, town hall discussions and regulatory development to science and education, better engagement with those who use public services can measurably improve those services. One of the major incentives for students and the academia to participate is to offer solutions to real world problems and gain recognition for their innovation. Private entrepreneurs can show case their innovation talent to the public agencies for future opportunities and help drive technology towards successful commercialization of products. Both the public and private sectors have the opportunity and incentive to recognize and attract future workforce through identifying and matching talent, as demonstrated by the solutions developed by the students collaboratively working with public and private entities.

The process would incentivize the best and the brightest students to tout their innovation in the Regional Sessions and the Technology Summit. The best projects at the summit could attract private equity groups and enterprises to market the innovation to solve governmental problems.
The outcomes from the Regional Sessions and the Technology Summit could revolutionize how products and services are developed to meet the demands of today’s citizenry. The limited resources of the government could be leveraged to promote competitive innovation of the academia and the private industry.

The incentives for holding the Regional Sessions and the Technology Summit are many in paving the way toward a citizen-centric service delivery in a digital age.

**Resources:**

Next generation digital public services are powered by government data and AI like chatbots and smart forms. The intelligent automation of programs will make public services more open, responsive, informative, and accessible for Californians.

Specific resources are necessary to structure a successful citizen-centric governmental service delivery model. It also requires pooling resources in a streamlined manner with minimum fiscal impact to the governmental budgets. This can present many challenges, but also allows huge opportunities to improve efficiencies across public agencies.

One such option includes harnessing the creative power of academia, private entrepreneurial ventures and governmental leadership. There are instances where college students, researchers and private enterprises collaborate to produce innovative solutions to governmental challenges through civic engagements, Hackathons, and Accelerators. Massachusetts Institute of Technology (MIT) has a model under the name of The Proto Ventures Program where innovative people, ideas, and technologies across MIT are brought together to create transformative technology ventures. ([https://innovation.mit.edu/research-policy/mit/proto-ventures-program/](https://innovation.mit.edu/research-policy/mit/proto-ventures-program/)). University of California, Berkeley, Institute for Data Science had a similar hackathon called California Water Data Hackathon ([http://waterchallenge.data.ca.gov/](http://waterchallenge.data.ca.gov/)). Harvard University is sponsoring a hackathon called New Venture Competition ([https://www.hbs.edu/newventurecompetition/Pages/default.aspx](https://www.hbs.edu/newventurecompetition/Pages/default.aspx)).

As initial step, proposed Regional Sessions and the Technology Summit could sponsor a similar hackathon where students and researchers from universities and colleges would launch their talent, ideas, and technology to explore technology solutions for addressing problems faced by public agencies.

Following resources would be required for the hackathon:

1. To compete, the teams submit a one-page executive summary.
2. The top 40 teams are then invited to submit a 5-page business plan.
3. The top 12 teams are selected as finalists to compete in the 2019 Regional Sessions.
4. The top 12 teams are connected with a mentor team with members from public agencies, private enterprises and the academia.
5. The teams would pitch their innovations to private enterprises.
6. The team selected by private enterprises would start collaborating with the private enterprises to prototype innovations.
7. The final prototypes developed in the Regional Sessions would be presented at the Technology Summit.
8. Attendees to the Technology Summit will develop skills for planning and procuring a successful initiative, learn industry best practices in selecting and negotiating with prospective partners, and hear firsthand observations from the public and other sponsors involved in the summit.

9. The successful team and private enterprises would be recognized with awards.

10. The State would start implementing the successful innovation developed in the Technology Summit.

11. The workforce training to implement the innovative program would be funded by the Workforce Investment Act of 1998 (29 U.S.C. Sec. 2801 et seq.), the Carl D. Perkins Vocational Education Act (Public Law 98-524), CalWORKs (Chapter 2 (commencing with Section 11200) of Part 3 of Division 9 of the Welfare and Institutions Code).

In the model of collaborative partnership, State would tap and harness the tremendous power of the entrepreneurial process and the force of the free market into making government more digitally effective and efficient.

**Planning:**

The planning team should create an overall strategy that is agreed upon by the State Government leadership in collaboration with private enterprises and the academia. Each agency/department should have a team to identify the agency/department’s high priority and outdated processes that need technology solutions to streamline the process.

As an initial step, each agency/department should start reviewing their current processes and determine the need of technological advances to improve their processes. The agency/department will gather and determine what is needed to solve the problem. In the Regional Sessions, private entities, government agencies, and the academia will come together to share ideas on how to solve issues that agencies/departments have identified. The Regional Sessions are hosted regionally to network and collaborate with entities in a regional location to connect regional partners together and help find innovative approaches to solve regional problems faced by governmental agencies. The Technology Summit brings in key players to one location and discuss breakthrough thinking and ideas to improve the effectiveness of processes in the future.

The leadership program California Innovation Playbook for Government Change Agents (Cal-IPGCA) is organized, structured, and have a foundation that we can emulate for hosting the Regional Sessions and the Technology Summit. This Cal-IPGCA program brings in organizational leaders in their respected roles and put everyone together to provide innovative solutions to solve high priority problems within the State government. Following this model, we need an overseeing entity that is responsible to gather the priority problems and issues from agencies/departments by conducting surveys and research. As Governor Newsom stated, the Office of Digital Innovation “will have the authority to develop and enforce requirements for departments to assess their service delivery models and underlying business processes from an end-user perspective.” Each
agency/department should create a team of innovative change champions and determine the need within their agency/department. Team members will attend a Regional Session and the Technology Summit to collaborate with private entities and the academia that can explore solutions. Each agency/department representatives’ will make recommendations to their organizational leaders and determine the best path forward. Completing all the necessary agreement prior to implementation.

**Planning Objectives:**

1. Assure compliance with essential, legal, statutory, and constitutional requirements of the department while supporting digital transformation in the workplace.
2. Provide the ability to quickly activate and integrate individuals and teams to support innovation and implementation.
3. Meet timely deadlines within each phase of implementation, as we adopt new technology each department should be able to resume providing services needed to our customers.
4. Provide an on-going training effort for continuity issues and responsibilities to department directors and coordinating staff to ensure that ongoing expertise is developed within state service.
5. Plan a communication approach to inform staff, create a pilot project, continue marketing, and build a culture within leadership to embrace innovation.
6. Maintain the trust and confidence of the citizens, stakeholders, and organizational leaders in the process of adopting new technology into the workplace.

**Accountability:**

Accountability is a key part to any project or assignment to ensure it is completed successfully. Having measurable tasks with checkpoints, schedules, and assigned staff are important aspects to ensuring accountability. We must start with an overseeing entity that has the authority to connect with and facilitate the involvement of other agencies/departments within the State government in hosting the Regional Sessions and the Technology Summit. The overseeing entity is the sponsor of the Technology Summit and plans, organizes, and facilitates the hosting of the event. The overseeing entity will gather information from each agency/department on their priorities and seek responses from government agencies, private enterprises, and the academia to invite them to the Regional Sessions and the Technology Summit. Each agency/department will be asked to bring forward current priorities and needed solutions for the private companies and the academia to work on. The major accountability is summarized under the headings assignment, responsible party, steps to accomplish assignment, and estimate completion/update time:
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<thead>
<tr>
<th>Assignment</th>
<th>Responsible Party</th>
<th>Steps to Accomplish Assignment</th>
<th>Estimated Completion/update Time</th>
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<tbody>
<tr>
<td>Overseeing Entity</td>
<td>Cal-IPGCA Association Board</td>
<td>- Gather information from agencies/departments, private enterprises, and the academia.</td>
<td>Dec. 31, 2019</td>
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<td></td>
<td></td>
<td>- Coordinate, plan, and facilitate Regional Sessions and Technology Summits.</td>
<td>Semi-annual Regional Sessions Biennial Technology Summit</td>
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<td>- Assist agencies/departments to find the best innovation that meets the needs of agencies/departments.</td>
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<td>- Maintain, update, and recruit existing/new vendors to the Regional Sessions and Technology Summits.</td>
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<td></td>
<td>- Continue to develop program and maintain collaborative relationships with government entities, private enterprises, and the academia.</td>
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<tr>
<td>Innovation Priorities</td>
<td>Agencies within state government</td>
<td>- Create a team to represent agency/department.</td>
<td>Annually</td>
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<td></td>
<td></td>
<td>- Determine technological advances needed.</td>
<td>Business plan updates/fiscal year</td>
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<td>- Provide supporting documents</td>
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<td></td>
<td></td>
<td>- Attend Regional Sessions and Technology Summits and collaborate.</td>
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<td>- Update controlling agency (feedback, lessons learned, additional vendors needed, accepting innovation, etc.)</td>
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**Metrics:**

The Technology Summit and Regional Sessions will act as stepping stones to help bring private enterprises, the academia and State Government together. This will help to start the relationship between private and public entities that will be a part of moving Governor Newsom’s Executive Order N-04-19 forward.

Measuring the success of the Regional Sessions and Technology Summits can be conducted in multiple ways:

1. The first metric could be through a survey created and sent out before each Regional Session and Technology Summit. The survey will ask participants what they are looking to accomplish and on what issues they need or seeking help with. At the end of each Regional Session and
Technology Summit, a follow-up survey will be sent out to determine if those in attendance were able to connect with the correct businesses/agencies/departments to help meet their needs. Those that were unable to find what they were looking for could be contacted by the committees of the Regional Sessions and Technology Summits to facilitate a connection with appropriate businesses/agencies/departments.

2. A second metric could be the tracking of Request for Innovative Ideas (RFI2), as per Governor Newsom’s Executive Order. An increase in RFI2’s after each Regional Session or Technology Summit will be an indication that these sessions and summits are bringing private and public entities together.

3. A final metric could be tracking the attendance to both the Regional Sessions and the Technology Summits. An increase in attendance at each Regional Session or Technology Summit would be a good indicator of the effectiveness of these sessions and the summits.

**Recognitions:**

To highlight the success of the Regional Sessions and the Technology Summits as well as overall success of public-private collaboration and innovation, these sessions and summits will have dedicated websites where successful completion of projects are showcased. An Award Ceremony will be established to help in celebrating public and private partnerships. There will be an award ceremony at each Technology Summit to highlight and honor successful completion of a project, savings in costs for the State agency/department, decrease in wait time for stakeholders, improvement in services, etc. This could also be a great opportunity to provide students with scholarships if their project/idea is implemented. In addition to this, the Technology Summit committee will send notifications to upper management within the agency/department that receives an award letting them know the important and excellent things that are being accomplished internally.