

Building an Integrative Community Platform to Alleviate the Workforce Aging Crisis

1952225

Dr. Baris Aksanli, Dr. Audrey Beck, Dr. Shangping Ren, San Diego State University
PG, FY2020

Principal Research Investigators (Name, Institution)

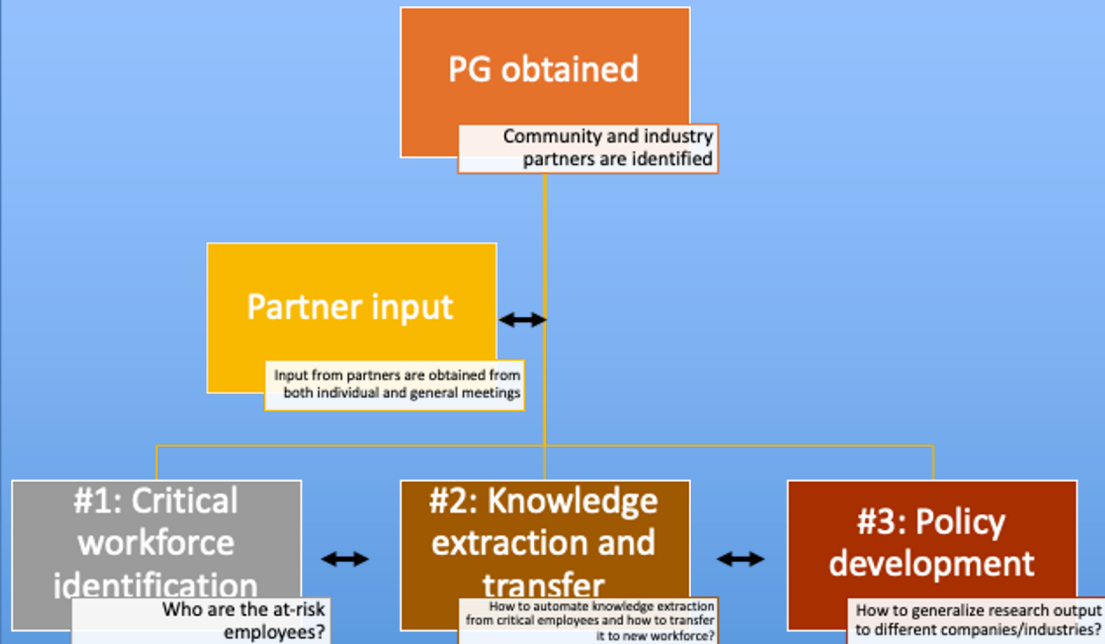
Dr. Shangping Ren, Computer Science, SDSU
Dr. Baris Aksanli, Electrical and Computer Engineering,
SDSU
Dr. Audrey Beck, Sociology, SDSU

Community Partners (Name, Institution)

Andrew H. Stewart, EDM International, Inc.
Dr. Jian Peng, Orange County Public Works
Catherine A. O'Connor, Metropolitan Water Reclamation
District of Greater Chicago
Kirby Brady, City of San Diego
Timothy DeNike, Port of San Diego

Project Overview

Visual Schematic



Project Vision

- Critical employee identification in a company structure
- Knowledge extraction from critical employees or historical records and transfer to new workforce
- Policy development to generalize research outputs

Project Overview

Use-Inspired Research

- Targeting issues resulting from an aging workforce.
- Some industries suffer from this issue more than others (e.g. utilities, public service, etc.).
- Our partners (utilities, city offices) need solutions to effectively retain and transfer knowledge to the future workforce.
- Our partners include Metropolitan Water Reclamation District of Greater Chicago, City of San Diego, and Port of San Diego.

PG Activities

- Finding community partners
- Understanding community partner needs
- Refining project goals and research objectives based on community partner needs
- Identify additional potential research collaborators in other disciplines (e.g. business)
- Leverage other related SCC projects
- Stakeholder workshop #1
- Identify research and implementation challenges of the final technical solutions
- Stakeholder workshop #2

Project Update

Activities:

- **Proposal development**
 - Refinement of research goals
- **Research activities**
 - Critical person/skill identification
 - Automatic knowledge extraction
 - Survey targeted industries
- **Community outreach**
 - Individual meetings with various partners, potential partners
 - One technical workshop with multiple partners in 11/2020

Project Evolution

How have planning grant activities shaped or evolved the long-term vision of the project? Specifically, we want to understand how engagement with your team (e.g., researchers and community partners) and feedback from the target community is informing your vision for the future IRG project. Give one or two specific examples.

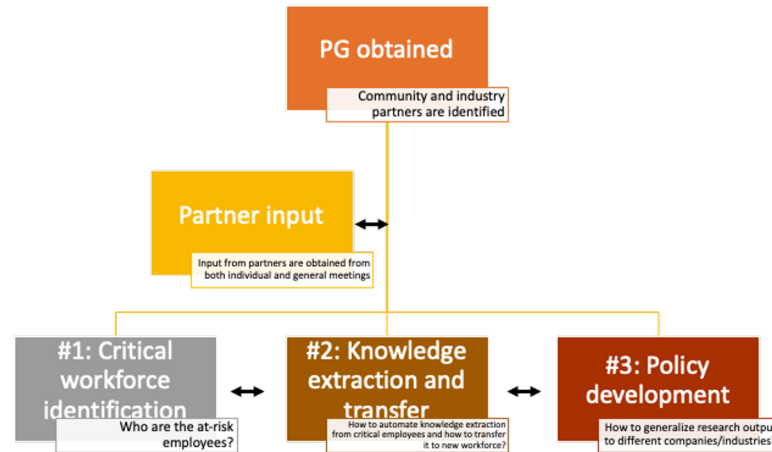
- *We learned that workforce aging is much more critical to our community partners than we initially anticipated. Our community partners were especially interested in a potential automatic knowledge extraction and transfer solution that can be easily applied within their company structure.*
 - *This provides us multiple test cases corresponding to different companies, however, also poses new challenges in terms of research as each company has different organizational structure and perspective on these issues.*
 - *We are currently exploring our options regarding how to emphasize the importance of these two thrusts in our future proposal.*

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