All disasters start
and
end locally

Digital Leaders Active in Disaster

An initiative of

SOU Institute for Applied Sustainability & Local Innovation Works

The Data Disaster after the 2020 Labor Day Fires

There is no list of everyone affected.

So, measuring and managing effectiveness, efficiency and equity is impossible.

To repeat this digital disaster would be a failure of leadership.

Our Goal: Avoid **Data Disaster** After Natural Disaster

Local Complete Survivor Data

Apps and trained teams to collect, validate, and analyze survivor data.

Track everyone who was affected by the disaster to speed the process of recovery

2020 Labor Day Fires Lessons

Data was never complete, validated, fully shared

Design a Solution - DLAD

Gather digital leaders to help design a data solution for any future disasters

DLAD Overview - Project Goal

Digital Leaders Active in Disaster is a project aiming to organize local leaders who will facilitate collection and management of data from survivors in the event of a future disaster.

The goal is for the community to own this data, with quality, trust and security being high priorities.

Find the original blog post here

DLAD Overview - Problems and Solutions

This community owned and managed complete census of survivors would allow for easier analysis of impacts and outstanding needs and easy coordination with organizations involved with recovery.

Currently the collection and governance of data after disasters is not centralized and creates only self-selected sets of data. As a result, disaster survivors bear the burden of either repeatedly providing sensitive and traumatic information to a complex web of organizations in order to get the relief aid that they need or not being counted at all.

The work of the DLAD would be facilitated by two standing committee of local leaders in Jackson County; one technical, the other focused on building teams of trusted data collectors. Together, the DLAD committees would would act like a digital COAD in the event of disaster to support the collection, governance, and analysis of survivor and recovery data.

Phases of DLAD Development

Q2 2023

Q4 2023

Now

Concept	Plan	Start	Build	Refine
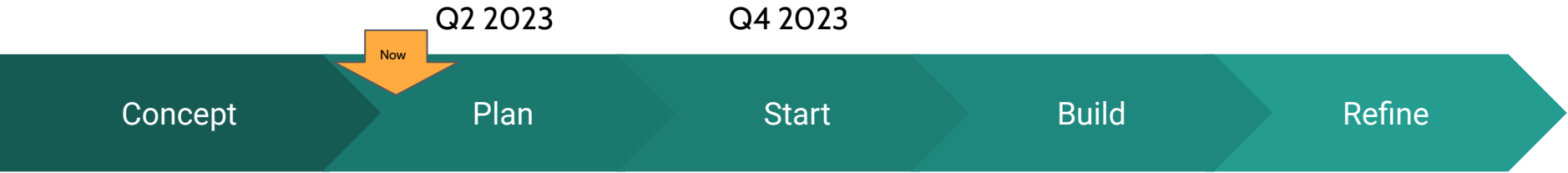
The DLAD idea is explored and developed in partnership between SOU's Institute of Applied Sustainability and Local Innovation Works, drawing on the expertise and experience of the community.

DLAD concept is developed into an operational plan with the support of the founding advisory board of local technical and emergency management professionals.

The founding DLAD advisory board authorizes entity formation, fundraising, and initial data collection project work in cooperation with SOU's IAS and lead organizations. Participate in RVCOAD exercises to test requirements

DLAD application, team, and contingency planning development begins delivering the tools required to fulfill the mission.

Monthly advisory board meetings continue to refine tools, plans, and team to ensure DLAD is ready to act immediately after the next disaster.

DLAD Concept Refinement - Who We Spoke With

Government Emergency Management

Jackson County OEM-Holly Powers, Delaney Huerta

OEM-Stan Thomas, Shawna Jepson

ODHS-Jeff Gilbert

OREM DCMP-Silvia Ceron

FEMA-Beth Otto, Heather Milton

CBOs

United Way-Dee Anne Everson

Rogue Community Health-William North, Richelle Marshall

ACCESS-Vicky Armstrong, Carrie Borgen, Melanie Doshier

Habitat for Humanity-Brandon Thoms

Fire Relief

Representative Pam Marsh

OHCS ReOregon-Alex Campbell

JCC LTRG-Caryn Wheeler Clay

Business Oregon-Marta Tarantsey

Catholic Charities DCMP
            -Jessica LaBerge, Jamison Purry

Jackson County/RVCOAD-Dave Dotterrer

Urban Design Associates-Barry Long

Firebrand Resiliency Collective-Tucker Teusch

Unete-Dagoberto Morales, Kathy Keesee

Digital Leaders

Rogue Credit Union-Scott Mulkins

Problem

Data Disaster after Natural Disaster

Lack of Complete Data Creates Inequity and Inefficiency

Inequity
- Organizations serving survivors have no comprehensive list of who was impacted, how to contact them, or who is being served by whom, so many survivors are unaware of resources
- Cannot track recovery – no list of those affected nor a way to measure their recoveries over time, so we cannot identify systemic gaps in services
- Major programs are often structurally inequitable

Inefficiency
- Redundant intakes and surveys retraumatize disaster survivors who retell their stories and personal information, often without receiving tangible results
- Data is not collected consistently
- Multiple agencies serving survivors have little coordination or data sharing between them, leading to survivor confusion, miscommunication, and distrust of recovery organizations
- Government entities get overwhelmed and the responsibility returns to community
- Not every size and type of disaster receives complete assessments

Data Collection After the Almeda Fire

Response		Recovery		
Fire + 1 day	**Fire + 1 week**	**Fire + 3 weeks**	**Fire + 4 months**	**Fire + 20 months**
Jackson County EOC and Evacuation at Expo Survey by the county - offered but not the focus	**Red Cross intake at Expo** No data collected except for ARC reunification lists.	**FEMA IA Applications Open** Collected data from people who applied. 57% of applicants denied. Data never shared	**Red Cross leaves shelter data with ODHS** On 12/31/2020, ODHS office of Resilience and Emergency Management assumed the sheltering mission for the incident from the RC and received the list of people served.	**Red Cross shares 2021 3rd round assistance data with LTRG** Six month old data allows the LTRG to look for anyone of the 800 people on the list who still needed to be contacted by the Disaster Case Manager program

Challenges Created by the Data Disaster

- Communicating with impacted people
- Measuring immediate needs and identifying gaps in aid
- Securing and allocating program resources for improved impact
- Tracking recovery over time
- Refining systems to respond to future disasters

Local Leadership Requires Data Preparedness

"After the fire, only the burn scar was visible.

The people affected became invisible as they scattered and worked to recover."

- Knowing who is affected, the state of their needs and recovery, and how to communicate with them is fundamental to effective and equitable disaster response
- Allowing this data disaster to **happen again** after the next natural disaster would be a failure of leadership

Who has the data has the power.

— Tim O'Reilly.

Proposed Solution

A team of local digital leaders working to prepare community owned data collection and sharing solutions for the next disaster

Who's Included in the DLAD Teams?

Technical Team

- Community based organizations
- Healthcare
- Corporate and banking
- Local government
- Technology firms
- Academia
- Local individuals with expertise

Community Engagement Advisory Team

- City/County government
- Representative community organizations – ethnicity, race, age, housing status
- Tribes and Native peoples
- Schools
- Faith based organizations
- Chambers and other business orgs

What Would a DLAD Do?

- Plan to meet digital needs post disaster
- Create and manage survivor registration data
  - Collect, Secure, Share
  - Validate, Analyze
- Train community leaders on the value of high quality data
  - How they can support collecting and maintaining recovery data
- Train volunteers on the value of being counted in the data
- Advise leaders on technical aspects of disaster recovery planning
  - E.g. Resilience and redundancy of communications and technical resources
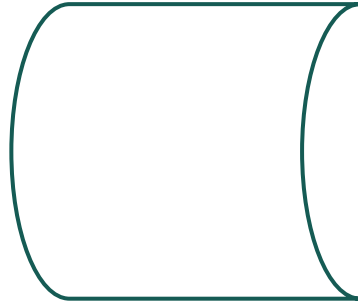
DLAD data empowers our community to care for each other

Proposed DLAD Data Flow

Collect	Secure	Analyze	Share
Self entry and volunteers at relief centers, gathering points, and canvassing	Online database with tight security practices, verify status	Refine data to generate accurate, timely reporting	Summary data available via reports and APIs

Local, state, federal relief organizations, media partners

Data Collection Process the DLAD Would Create

	Response		Recovery		
Disaster + 1 day	**D + 1 week**	**D + 3 weeks**	**D + 1 month**	**D + 6+ months**

DLAD teams begin collecting data in relief centers and in affected areas	**Fill data gaps and share resources**	**Analyze needs and resource gaps**	**Recovery progress data shared**	**LTRG shares state of recovery and lessons learned**
Volunteers trusted in the community would begin registering their neighbors and people seeking relief immediately	Focus shifts to complete, accurate data and verified status on EVERYONE affected by the disaster	With accurate data on who was affected and what they need, resources and programs can be refined	Accurate summary data on impacts and needs travels up to policy makers	The data allows for recovery-wide conversations around how to accelerate and refine the recovery

Where Would the DLAD Fit In Our Community's Well-being Organizations?

Systems Landscape – Siloed Funding, Systems, Data

	Health	SDoH*	Human Services	Disasters
Federal	HHS(ACF/AFP) & HUD			FEMA
State	OHA		OHCS / ODHS - OREM	OEM
Local Services	RCH/ LaClinca Asante/Providence, ++		ACCESS	C/VOAD Red Cross

Collaboration	HIE - Reliance	CoC All In for Health	CIE - UniteUs	LTRG

DLAD data would seek to track everyone affected

* SDoH is Social Determinants of Health

DLAD in the Community

Preparedness
- RV COAD – important partner, but is not mission aligned
- Jackson County OEM – supports but cannot own this project

Recovery
- LTRG – can support, but probably cannot own the liability
- ACCESS, RCH, etc

DLAD

Technical Expertise
- Local digital leaders from business
- CBO digital leaders
- SOU – holds concept and design

Trust
- Community organizers
- Community-based organizations
- Local business leaders
- SOU and other educational orgs

Legal Structure: Community Partnership

Requirements

- Shared resources
- Limit liability of all partners
- Clear, efficient decision-making processes based on community wisdom

A Possible Solution

- A separate LLC/LLP with a managing partner, likely LTRG
- Key members being the LTRG, County OEM, COAD, and leading CBOs
- Advisory council of local Community and Digital Leaders

DLAD Team and Application Are Prototypes

Open Source

- DLAD organization design
- MyRecovery data structures
- OurRecovery analysis and reporting tools

Shared With Others In Need

- DLAD should always seek to collaborate with other communities in recovery from both prior and future disasters
- Partner with local, state, and federal disaster relief organizations & governments to ensure efficient and equitable recovery going forward