Disrupting the Digital Divide: Technology First Systems Change

Presented by Kaley Day

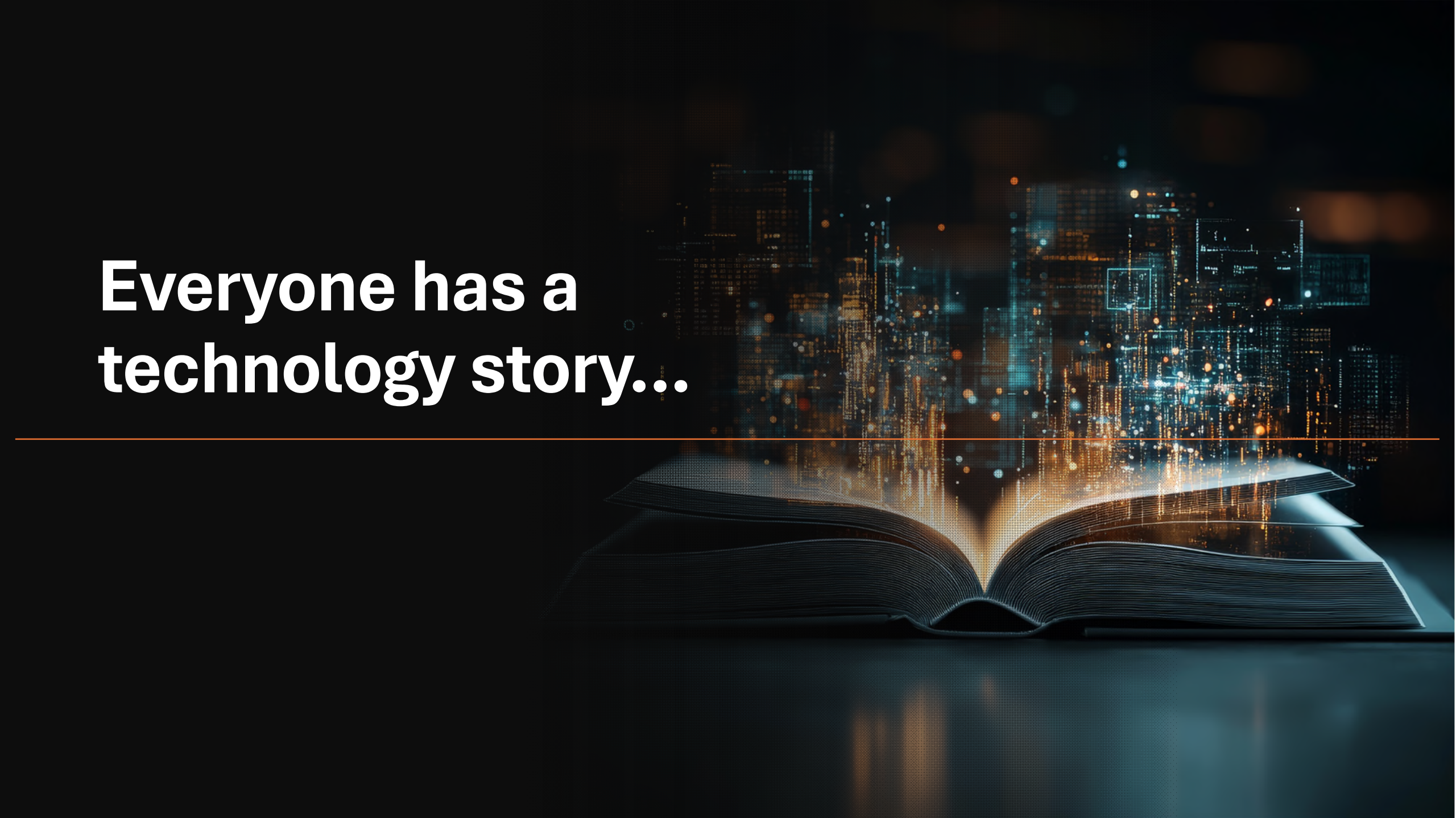
WA Bridge Forward Virtual Conference

July 24, 2025

KU CENTER ON DISABILITIES

State of the States
In Intellectual and Developmental Disabilities

Everyone has a technology story...



Our Technology Story

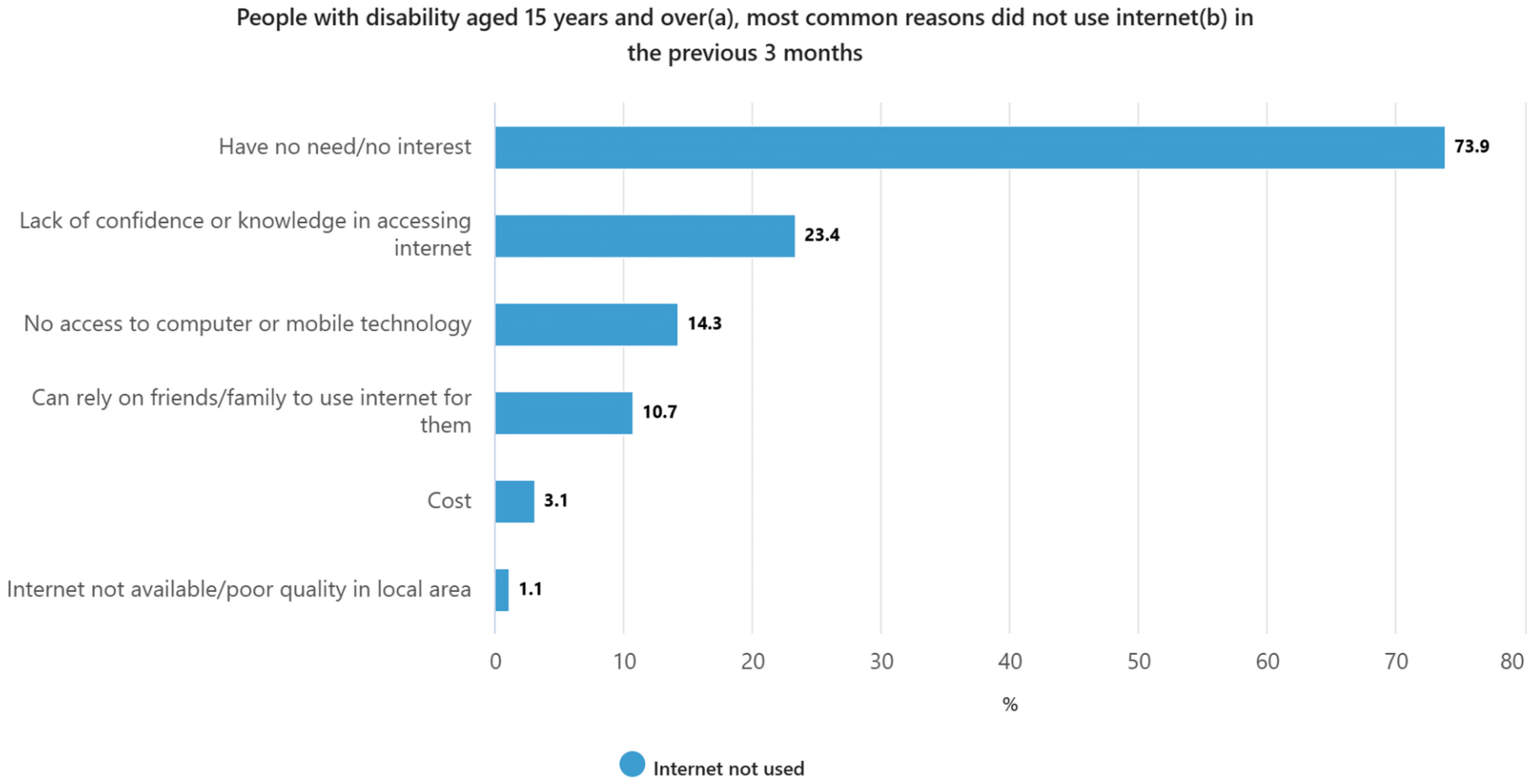
Carey's day-to-day world may be small, but his imagination and community are big – Technology supports that.

The ubiquity of technology is changing the world around us and how we must **interact, survive**, and **thrive** within that world.

Technology Divide for People with Disabilities

- Lack of inclusive design of technology
- Failure to address “useworthiness” and desirability alongside usability
- Lack of digital/technology literacy and resilience
- Gatekeepers that limit opportunities
- Lack of adequate supports
- Systemic barriers
- Economic barriers

"*Why would I?*" – Addressing "Useworthiness"



a. Living in households
b. People could report more than one reason.

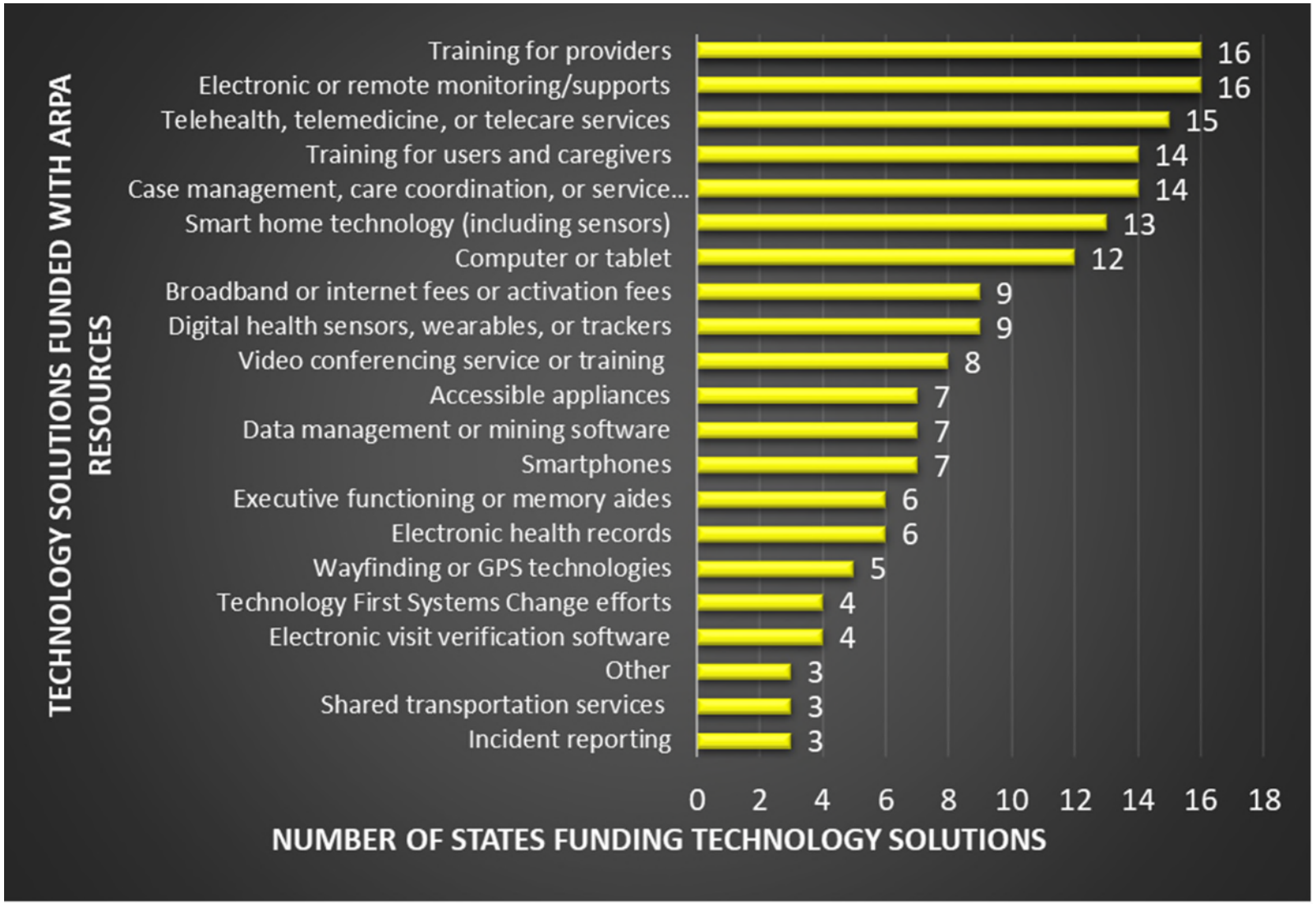
Source: Australian Bureau of Statistics, Use of information technology by people with disability, older people and primary carers 21/07/2020

Lack of access to the digital and technology community prevents access to community living.

The Rise and Impact of Telehealth

Studies show the use of telehealth can decrease no-show rates in clinical settings.

Disparities remain, especially for older, non-white, rural, and low-income communities.



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Technology First

Not a singular program or service,
but a framework for systems change.

Technology First Systems Change

"Framework for systems change where technology is considered first in the discussion of support options available to individuals and families through person-centered approaches to promote meaningful participation, social inclusion, self-determination and quality of life" (Tanis, 2019)

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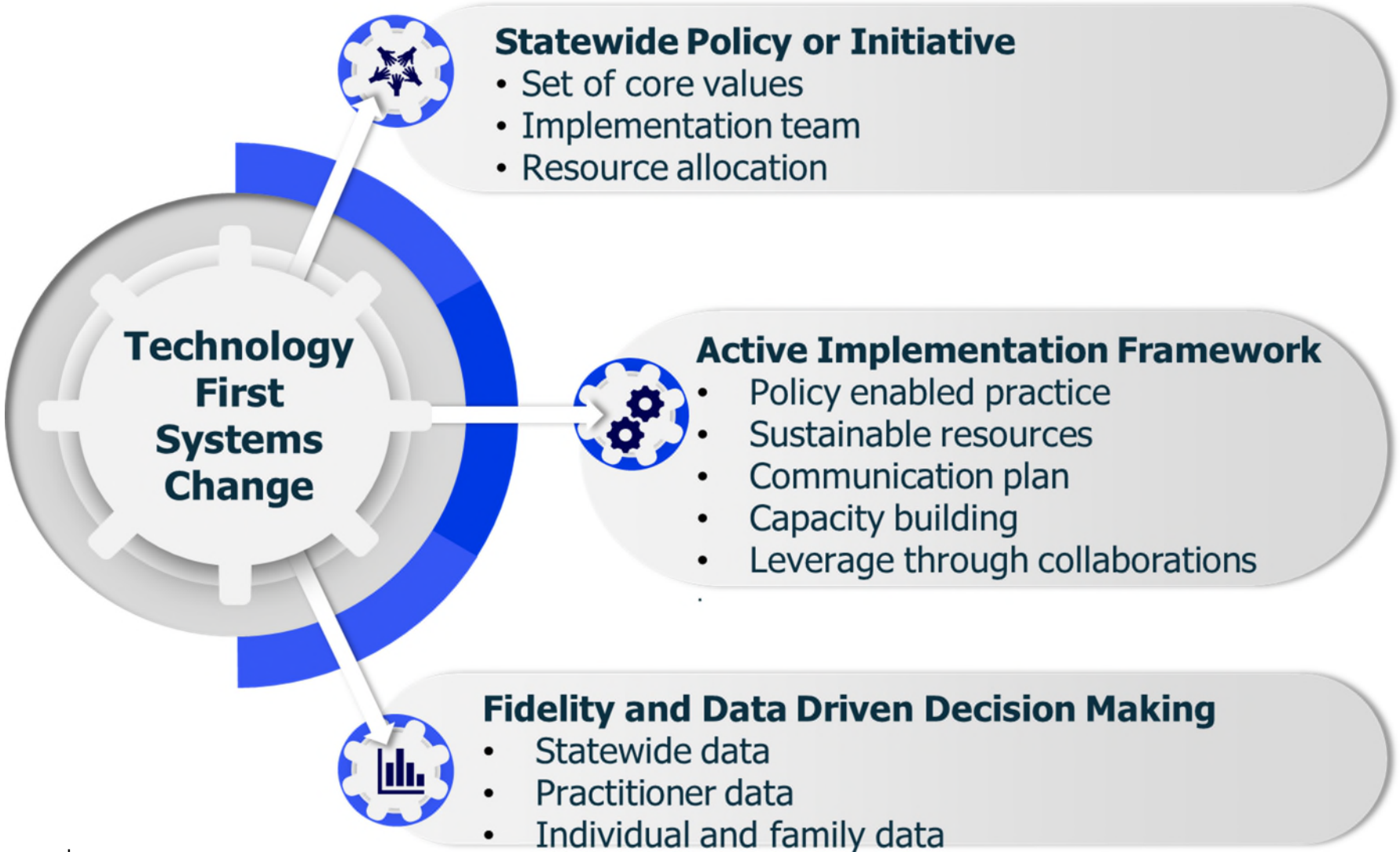
Technology First Systems Change Model



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Some Technology First Systems Change Component Initiatives

- Tech First Systems Change Maturity Model
- State and Federal Policy
- National Committees & Forums
- Tech First Statewide Committees

- Training for Providers and Consumers
- “Technology Solutions Specialist” Program
- Inclusive Design and Cognitive Access Accessible Language and Content
- Person-Driven Technology Selection

- National and Statewide Surveys
- Technology Needs and Barriers Survey
- Technology Resiliency, Agility, and Literacy Questionnaire (Tech-RAL Q)
- Provider Readiness Evaluation

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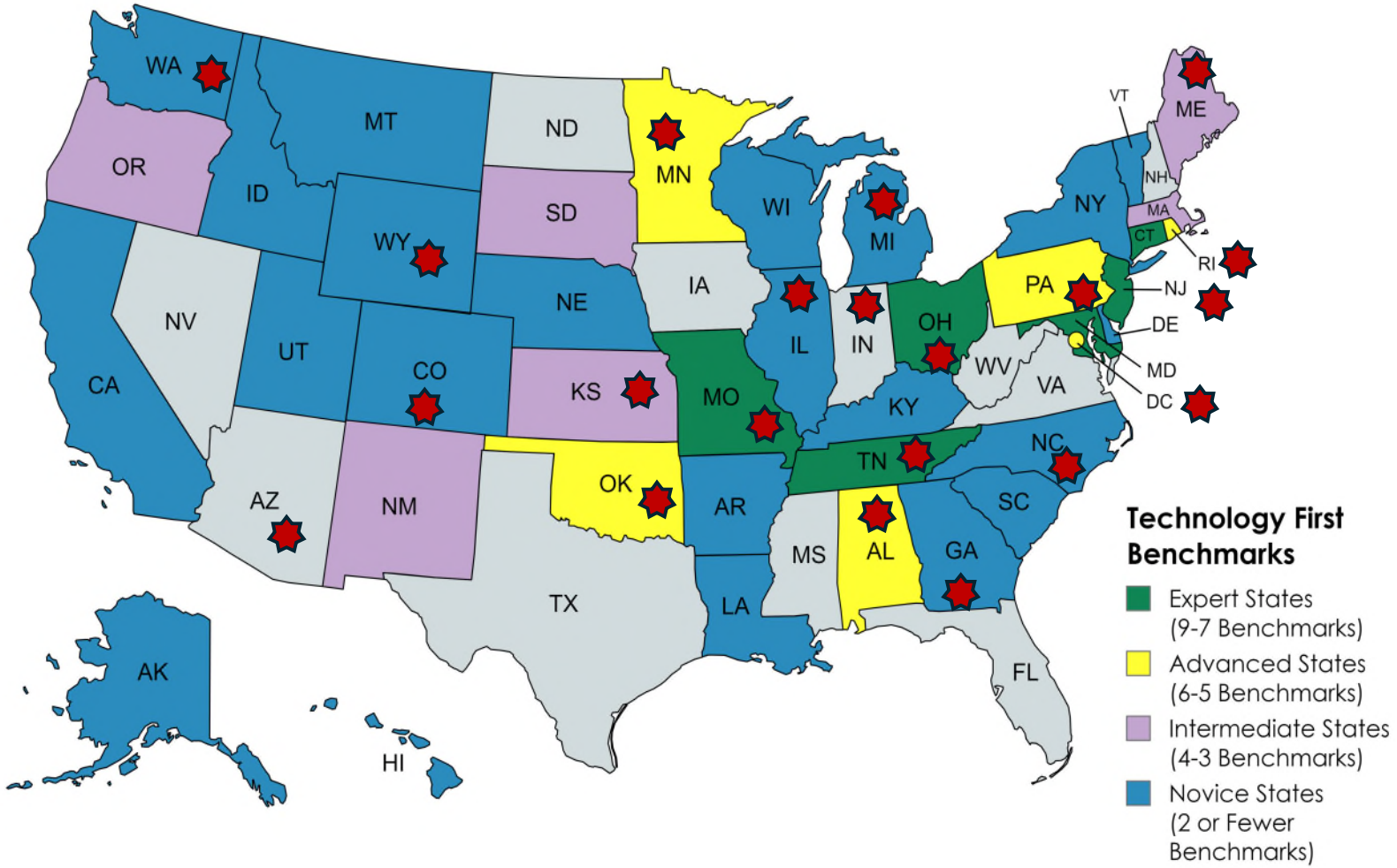
Technology First Systems Change Benchmarks

KU Partner
(21 States)



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President's Committee for People with Intellectual Disabilities 2024 Report

- *Advancing Independence and Community Integration for All: Supporting Individuals with ID Through High-Quality Home and Community Based Services*

- "Six principles considered pivotal to strengthening and sustaining the nation's HCBS infrastructure…
  …States can use the *Technology First* framework, which considers technology first in a discussion of available support options."

- Link to the State of the States website

Advancing Independence and Community Integration for All: Supporting Individuals with Intellectual Disabilities Through High-Quality Home and Community-Based Services

The President's Committee for People with Intellectual Disabilities Report to the President

SEPTEMBER 2024

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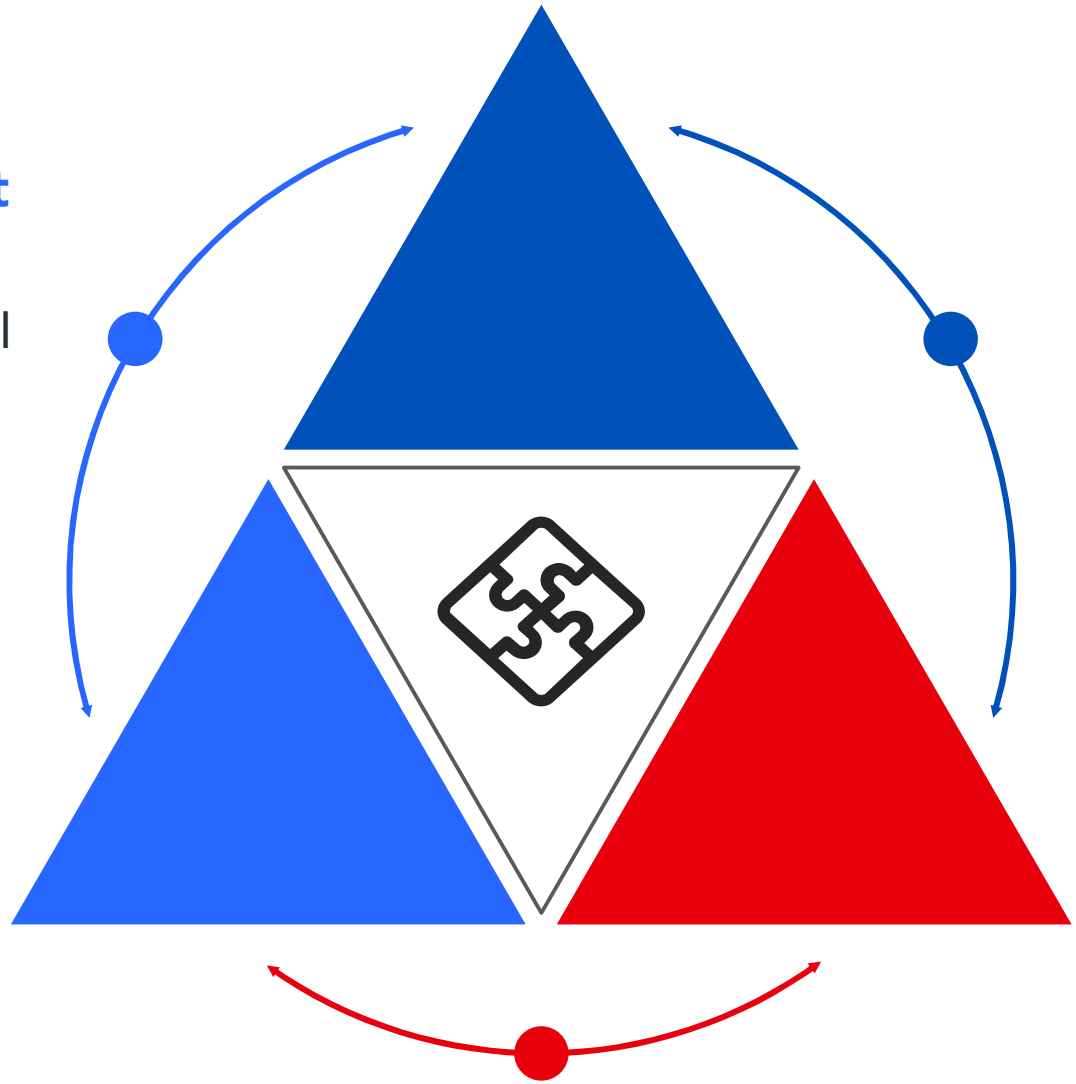
The ‘Firsts’ – Integrating Movements

Technology First

Identifies tools for autonomy and goal attainment



Person-Centered Practices

The foundation in increasing a person’s autonomy through their goals, needs, preferences and values.

Employment First

Identifies employment as a priority outcome

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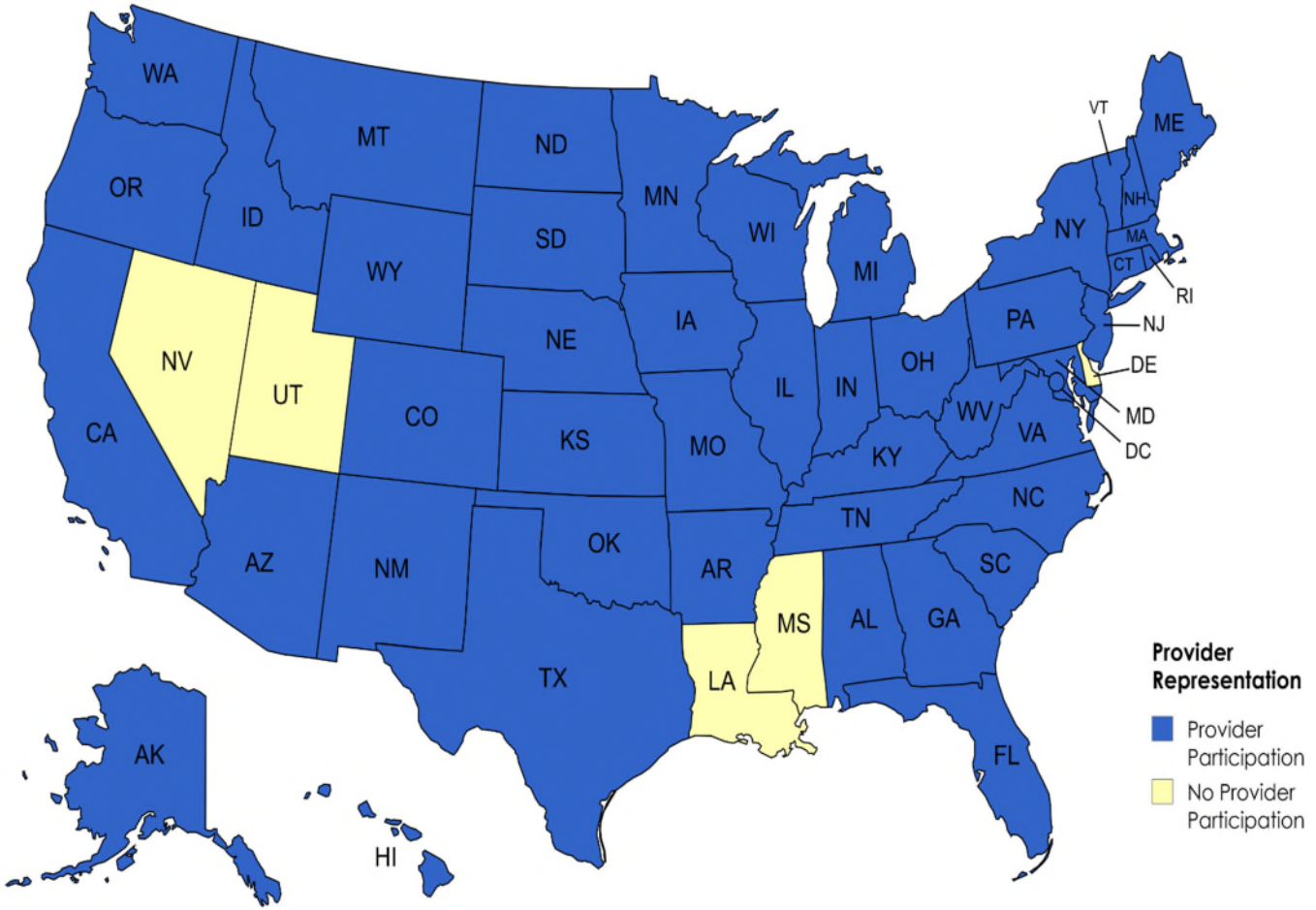
Technology 2.0 Provider Survey

ANCOR 2.0 Technology Solutions Report (N=283)

1. General organizational information
2. Technology barriers
3. Technology investments
4. Pandemic-related questions
5. Technology First Systems Change



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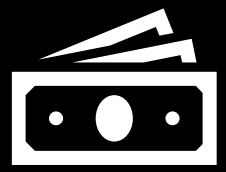
Barriers That Prevent Advancement to Technology Solutions for Individuals with I/DD



Financial resources

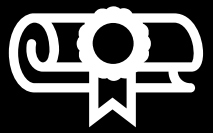
(64% in 2024)

Reimbursement of services

(63% in 2024)

Knowledge of available and emerging technologies

(57% in 2024)



Training on available and emerging technologies

(50% in 2024)

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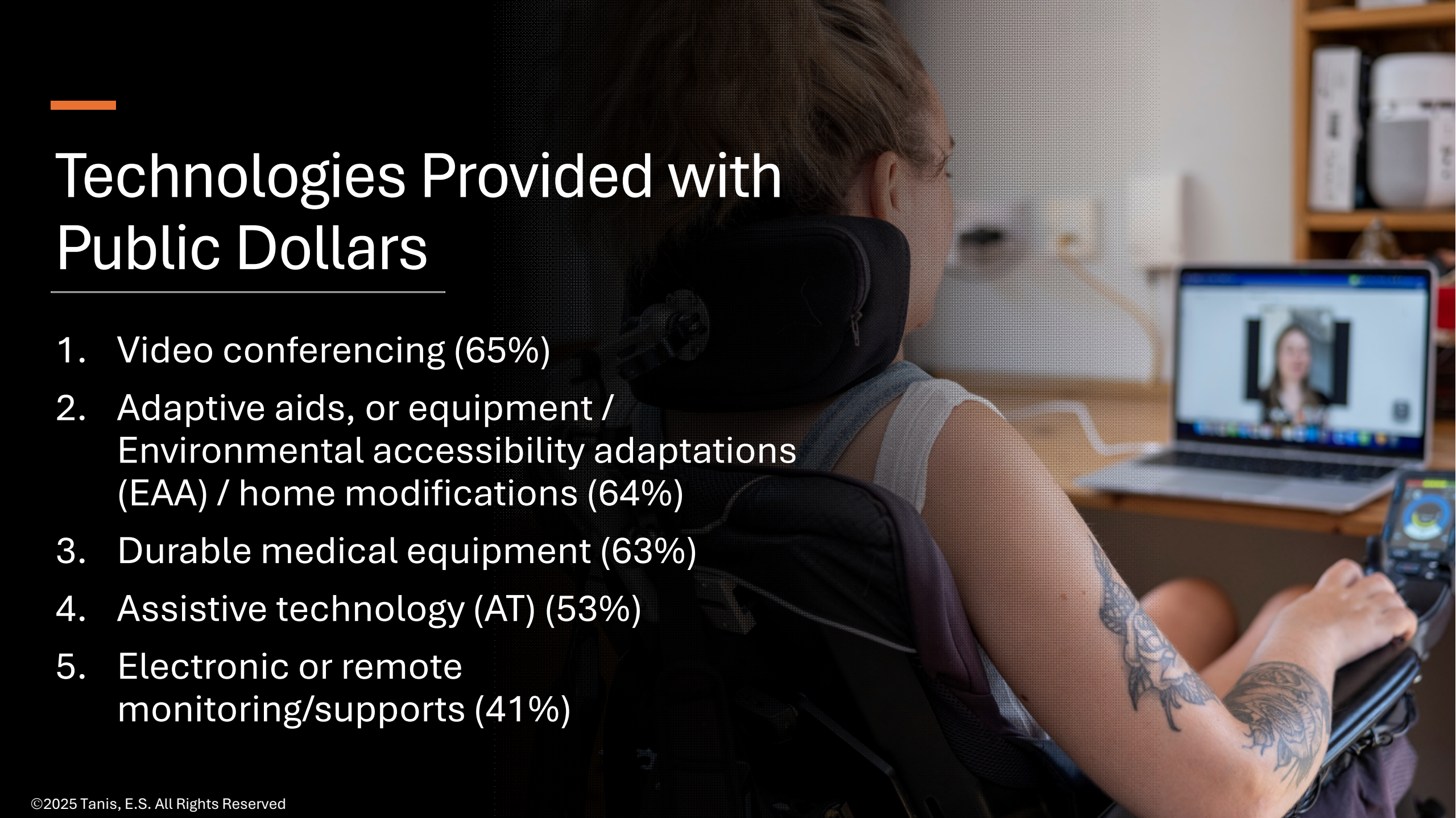
Technologies Provided with Public Dollars

1. Video conferencing (65%)
2. Adaptive aids, or equipment / Environmental accessibility adaptations (EAA) / home modifications (64%)
3. Durable medical equipment (63%)
4. Assistive technology (AT) (53%)
5. Electronic or remote monitoring/supports (41%)



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Technologies Provided With Organizational Funds

1. Computers or tablets (78%)
2. Broadband or internet activation fees (77%)
3. Smartphones (49%)
4. Smart home technology (39%)
5. Accessible appliances (32%)

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Future Technology Investments

1. Smart home technology (63%)
2. Digital health sensors (53%)
3. Wearable technology (50%)
4. Computers or tablets (45%)
5. Accessible appliances (40%)
6. Executive functioning or memory aids (37%)
7. Smartphones (31%)
8. Wayfinding or GPS technology (30%)
9. Electronic visit verification (26%)
10. Broadband or internet activation fees (24%)

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Cost Savings and Efficiencies

53%
2020

85%
2024

Providers who indicated they could demonstrate cost savings or greater efficiencies as a result of investing in technology solutions

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Technology First Data Highlights

38% of providers do not know if they have a statewide Technology First policy or initiative

47% of organizations reported investing in capacity building for case managers, providers, caregivers and consumers to learn, upkeep and update technology solutions

Only **24%** of providers have completed a user technology needs assessment

36% of providers require the consideration of technology solutions as part of the person-centered service plan

84% of providers agree that greater technology solutions could aid in addressing the direct workforce crisis

8 distinct funding authorities supported technology training in 2023

Providers are most interested in working to support their state modernize and harmonize policies to support technology access **(58%)**

85% of providers are interested in obtaining assistance in conceptualizing, drafting, or advancing technology related training, policies, or initiatives

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State of the States' Technology Initiatives

Wearables for Wellness

- Health Wearable Accessibility
- Technology Needs and Barriers Survey
- Self-Directed Health Goal Setting
- Tech Skill Development (Tech RAL-Q)
- Guide for Accessible Wearables for Health Professionals

WEARABLES FOR WELLNESS
Accessibility of Wearables

PA Tech Accelerator

- Statewide Provider Assessment
- Technology Solution Specialists Training and Development
- MCO Tech Training
- Provider Readiness Assessment
- Technology First Statewide Steering Committee
- State Summits
- Case Manager Training

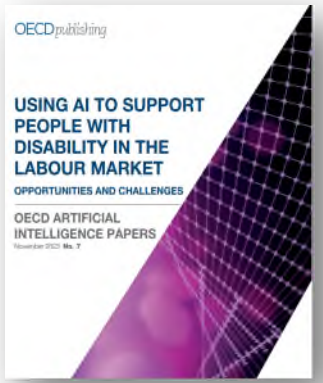
PENNSYLVANIA
TECH ACCELERATOR

Accessible Design

- Accessible Icons
- Narrative Visualizations
- National Network of Technology Solution Specialists and Training
- Data Agency

AI and Employment

- Ethics of AI
- Building inclusive AI models
- Using AI for career advancement
- Examining AI policies for service definitions



Technology First for Kansans

- Technology Needs and Barriers Survey HCBS Waiver Recipients
- Targeted Case Manager Technology Training
- Statewide Council
- Technology Solution Specialists
- Statewide Think Tank
- AT Act device deployment
- AT Funding Manual
- AT Fairs

T1K Technology First for Kansans

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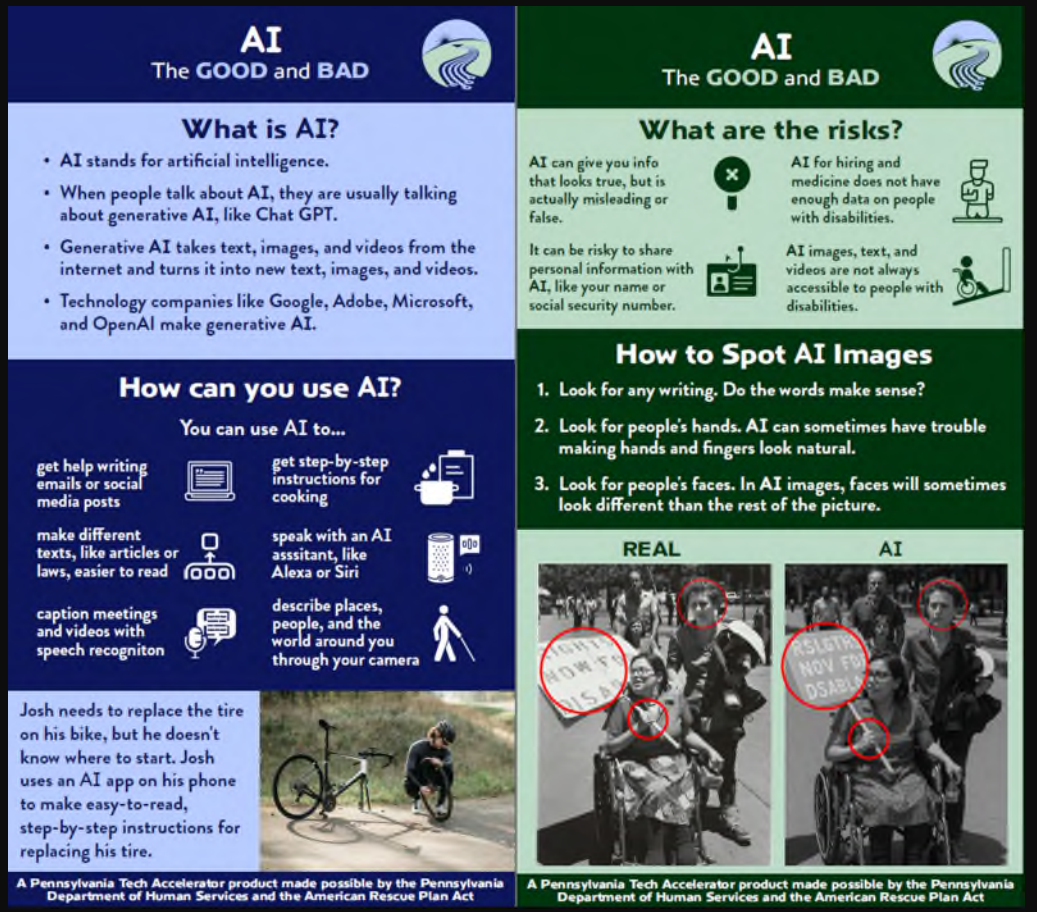
Technology Solutions Specialists

Individuals with lived experience trained in:

- Assistive technologies and accessibility features
- State resource navigation
- Storytelling and advocacy
- Plain language and accessible content
- Peer mentorship



The next generation of technology leaders and consultants

Disruptive Technologies – Forbes 2025

1. Automated decision-making agents
2. AI governance
3. Multifunctional robots
4. Spatial computing
5. Post-quantum cryptography
6. Neurological Enhancements – healthcare and performance
7. Energy-efficient computing
8. Advanced tech to combat misinformation
9. Hybrid computing to optimize complex data tasks
10. Ambient intelligence to anticipate human need

Realistic Expectations Driving Action

People with disabilities should have the opportunities to be Technology Enthusiasts

People with disabilities deserve to have access to technologies of their choosing across all domains of living

People with disabilities should be trained to be the next generation of *Technology Solutions Specialists* influencing policies and advocacy

People with disabilities should be educated in *data agency* to have control of their own digital footprint

People with disabilities should be co-designers of personalized ecosystems

Technology should be used to develop environments and products that adapt to people with disabilities – not the other way around

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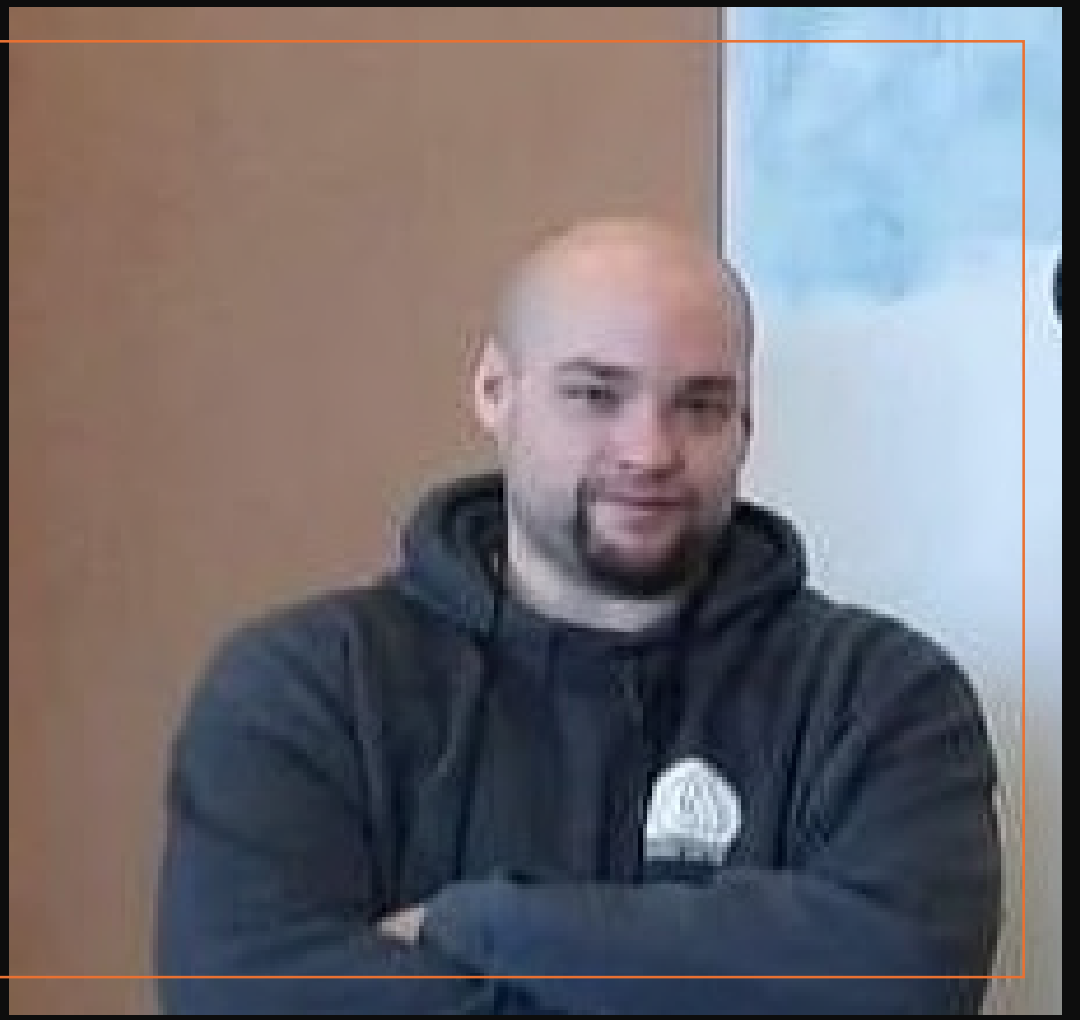
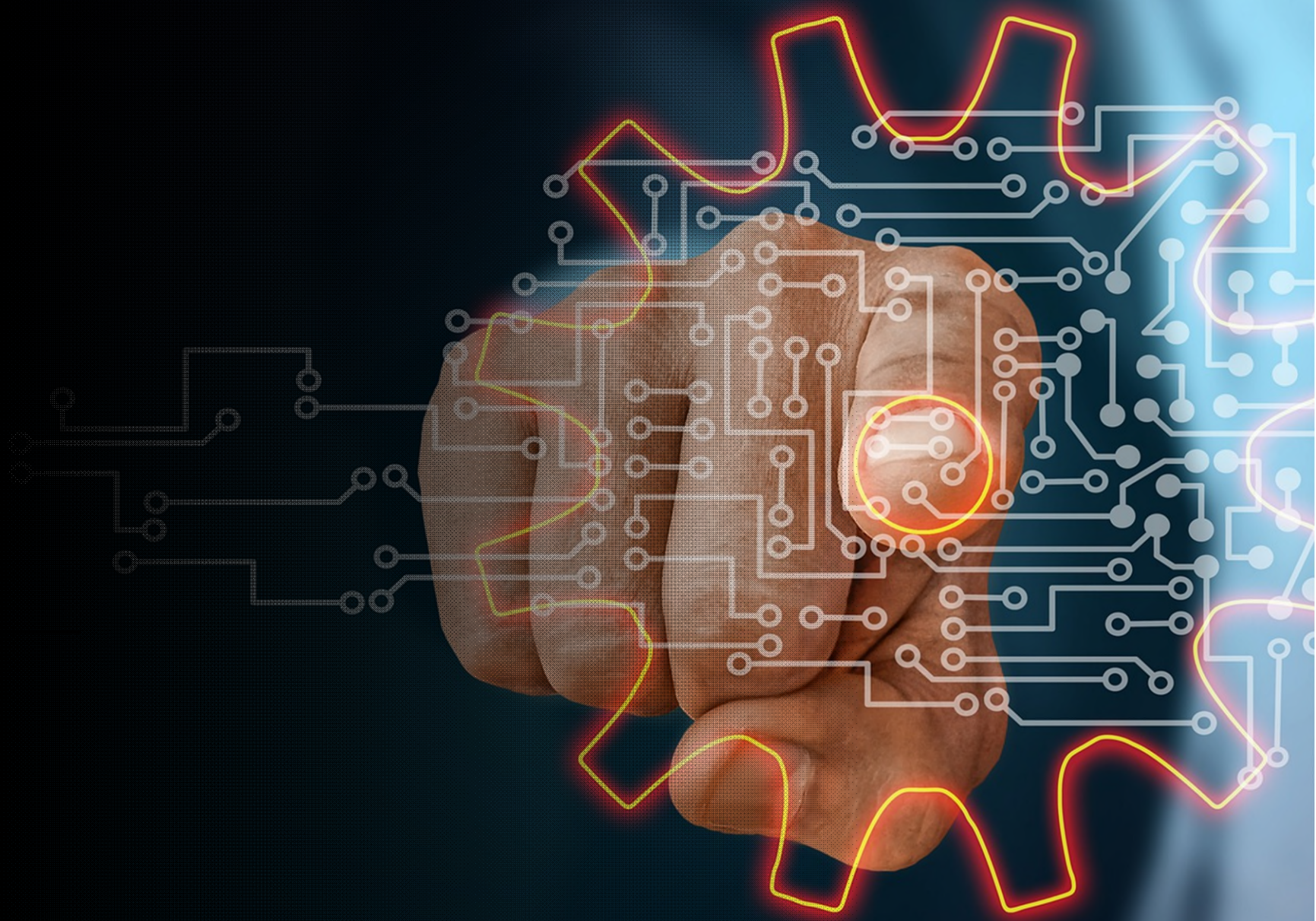
Matt Smith,
Technology Solutions Specialist

"Technology has allowed me to be a part of various communities or spaces online that are specific to my interests that I cannot or would not be able to find in person.

Chat programs like Messenger, Discord, etc. let me connect with anybody in the world instantly, and this is incredibly important to me because I'm a very social person but have issues with transportation, so actually getting to the people I want to see and the places I want to be is very difficult."



How will you drive new technology stories?



Thank you!

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